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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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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, we analyze the growth of banks' total gross loans as well as the growth of corporate, consumer, and residential mortgage loans. While domestic private banks in Eastern Europe and Latin America contracted their loan growth rates during the crisis, there are notable 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 is 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. Also, there are less pronounced and robust differences in the behavior of foreign and domestic banks during the crisis in Latin America.

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% to 46%, while government bank ownership declined from 28% to 19%.[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 efficiency,[2] government bank ownership was often detrimental to the financial sector.[3]

The recent global financial crisis has 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' 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,

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[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 Martínez Pería (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).

[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.

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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, forthcoming). 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. In Latin America the dominant foreign players are Spanish banks, who typically fund most of their operations in those countries with local deposits, and extend most of their loans in local currency (Kamil and Rai, 2010).[5] Also, Spanish banks yield substantial independence to their foreign subsidiaries. As described by Fiechter et al. (2011) not only are subsidiaries self-sufficient in their funding, but also in their governance and risk management.[6]

On the other hand, in Eastern Europe, banks from nearby Western European nations (such as Austria, Germany, Italy, and the Netherlands) are the key foreign financial institutions. These foreign banks resorted to foreign currency denominated wholesale funding from non-local sources to fund their operations before the crisis. Furthermore, in contrast to the Spanish subsidiaries in Latin America, these other European banks' subsidiaries were not independently managed. Allen et al. (2011) find that a significant share of the board members of the foreign banks that operated in Eastern Europe was composed of senior members in the parent banks. 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.[7]

Our paper is related to studies that explore the reasons why different bank ownership types (in particular foreign versus domestic banks) may differ in terms of lending behavior. One strand of this literature argues that informational barriers between loan officers and borrowers might affect banks' lending behavior. In comparing the behavior of foreign and domestic banks, the argument is that the former, by virtue of being outsiders, have less access to or ability to interpret "soft" information (i.e., information garnered through direct knowledge of the borrower and its interactions with clients, suppliers, and the community in general). Hence, foreign banks are less likely to lend to certain borrowers (such as SMEs) for which most of the information available on them tends to be soft (see e.g., Berger et al., 2001).

A related strand of the literature emphasizes the hierarchical structure of multinational banks and the implications for their lending behavior. In particular, studies such as Aghion and Tirole (1997) and Stein (2002) suggest that greater distance between the top management of the bank at headquarters and the overseas branch or subsidiary could lead to less reliance on soft information and, therefore, lower lending to opaque borrowers. Using data from a large multinational bank, Liberti and Mian (2009) show that as hierarchical distance within a multinational bank increases between loan officers, who collect information on applicants, and loan approving officers there is less (more) reliance on subjective (objective) information in lending decisions. Micro-evidence from a sample of 80,000 loans in Pakistan from 1996 to 2002 also shows that as geographic distance and cultural dissimilarities between the headquarters of a foreign bank and its branches in the host country widen, lending is increasingly based on hard information (Mian, 2006).

Cross-country evidence also indicates that proximity between home and host country and a common language and legal framework are associated with higher levels of foreign bank participation (Galindo et al., 2003; Buch, 2003; Buch and DeLong, 2004). Supporting institutions can however mitigate the informational difficulties faced by foreign banks, as indicated by positive links between foreign bank participation levels and the quality of credit reporting (Tsai et al., 2011), low levels of corruption and greater adherence to the rule of law (Galindo et al., 2003) and greater judicial efficiency (Focarelli and Pozzolo, 2000) in a host country.

The behavior of foreign banks during host country-grown crisis episodes has been well-studied and generally indicates that foreign banks are a stabilizing force in terms of credit supply during host country crises. For example, a number of studies focusing on the Tequila and Brazilian crises of the 1990s have shown that foreign banks did not pull back from host countries such as Argentina, Brazil and Mexico in the face of the crises, but rather viewed these episodes as opportunities to become more firmly rooted in these economies (Peek et al., 2000; Crystal et al., 2001, 2002). Similar evidence has been found for foreign banks in the context of Eastern European crises that took place during the 1990s and early 2000s (see de Haas and van Lelyveld, 2006, 2010)

No doubt in response to the global scope and severity of the 2008–2009 crisis, there has been a proliferation of studies analyzing credit growth during this recent episode.[8] There is evidence that foreign banks reduced their lending earlier and faster than domestic banks during the crisis (Claessens and van Horen, forthcoming; de Haas and van Lelyveld, forthcoming), in particular within Eastern Europe (de Haas et al., 2012; Mihaljek, 2011).[9] Regarding the behavior of government banks, the evidence from non-crisis periods is quite negative. Cross-country studies show that greater government participation in bank ownership tends to be associated with lower levels of financial development (Barth et al., 2001, 2004; La Porta et al., 2002), more politically motivated lending (Dinç, 2005; Micco et al., 2007), lower banking sector outreach (Beck et al., 2008), wider intermediation spreads and slower economic growth (La Porta et al., 2002), and greater financial instability (La Porta et al., 2002; Caprio

[5] In our sample, Eastern European banks actually had higher ratios of deposits to total liabilities than Latin American banks. This could stem from the subset of Eastern European countries that we focus on. One concern is that heavy reliance on deposits denominated in local currency and loans extended in foreign currencies produced mismatches that resulted in mechanical reductions in the value of loan portfolios in countries with depreciating currencies. Ours is a comparison between bank ownership types, and so we note that domestic banks in Eastern Europe also relied heavily on deposit funding in local currency and extended a large share of their loans in foreign currencies. Unfortunately, we are unable to disaggregate our data on loans or liabilities by currency, and so we cannot test directly whether banks with the most pronounced mismatches reduced their lending more than others. Country-year dummy variables are included in our regressions to control in part for any reductions in loan growth attributable to currency depreciation.

[6] See Appendix I of Fiechter et al. (2011) which describes the key features of the cross-border Spanish banking model. http://www.imf.org/external/pubs/ft/sdn/2011/sdn1104.pdf.

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

[8] Additional relevant evidence from the recent crisis comes from studies of capital flows. For example, Cetorelli and Goldberg (2011) analyze bank flows during the recent crisis and compare it to other types of capital flows. They find that banking sector flows accounted for a dominant share of the overall decline in capital flows to developing countries. Furthermore, they find that the decline in bank flows was driven both by a drop in cross-border loans and by a reduction in internal capital-market lending within global banks. However, the cross-border component of bank flows exhibited the more dramatic decline. Using quarterly data on capital inflows across 75 countries, Milesi-Ferretti and Tille (2011) also confirm that the contraction during the first year of the crisis was concentrated in banking flows. In addition, countries that were more financially integrated through banking ties and had large net liabilities in debt instruments suffered sharper declines in capital inflows. And countries with large fiscal deficits and deteriorating banking sector performance suffered steeper reductions in cross-border lending (Herrmann and Mihaljek, 2011).

[9] Evidence is from bank-level regressions for 1275 banks in Eastern Europe and Central Asia in de Haas et al. (2012) and from a survey of central bank governors in Mihaljek (2011).