

Foreign banks: Access to finance and financial stability
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Introduction

In the past two decades the world has become increasingly more integrated, not just through trade but also through financial flows. Financial integration offers many benefits, but the global financial crisis has shown that it also poses important risks. As a result a question high on the policy agenda is how to best benefit from greater financial integration while limiting its adverse effects.

The benefits of financial integration are straightforward. International financial flows provide financing for investment and consumption in capital scarce economies, where returns should be higher. This reduces cost of capital in these countries thus boosting investment and growth. Furthermore, financial integration can help cushion the impact of adverse shocks, as external borrowing can help smooth out domestic business cycle movements. Finally, it can provide risk diversification by allowing residents to transfer domestic risks to foreign investors while gaining exposure to foreign investment opportunities. But financial flows can also be a source of risk and international financial contagion. Not only in emerging and developing countries with relative weak institutions but, as became apparent during the global financial crisis, also in advanced economies where markets are deep and the absorptive capacity of the economy is much larger.

Although there are several other types of international capital flows, such as foreign direct investment, portfolio equity and debt securities, capital flows related to banks have been at the forefront of the policy debate. This is not surprising given that these capital flows have proven to be especially procyclical and volatile. Furthermore, they provide an important channel through which financial conditions

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can be transmitted from one country to another.

Banks have expanded their global activities over the past two decades using two avenues. On the one hand, they increased the provision of cross-border credit to other banks as well as to corporates. On the other hand, they expanded their global reach by establishing a presence abroad through a branch or a subsidiary. This allowed them to lend locally to firms and households financed either through local liabilities or through international capital including funding from the parent. While direct cross-border credit in general has been the most volatile component of international bank lending, also local affiliates of foreign banks can be a source of instability (Kamil and Rai 2010; Cetorelli and Goldberg 2011).

The fact that affiliates of foreign banks functioned, at least to some extent, as a channel through which the global financial crisis could spread has reignited the debate on the costs and benefits of foreign bank ownership. In this note I will give an overview of this debate, where we stand and what we know and do not know. I will start with an overview of the growth in foreign bank presence over the past two decades highlighting differences across countries and highlighting heterogeneity within the group of foreign banks. Then, in the following section I will discuss the impact of foreign banks on financial development and access to credit. The paper continues with a critical assessment on how foreign banks affect financial stability. I will finish with some final remarks on policy.

Foreign bank presence

In a recent paper Stijn Claessens and I, using a unique database of bank ownership, document a number of trends related to foreign bank ownership (Claessens and Van Horen 2012a). As is evident from Figure 1 foreign banks have become increasingly more important in the period analyzed. In fact, the relative importance of foreign banks in terms of numbers increased from a share of 20 percent in 1995 to 34 percent in 2009.

While foreign bank presence increased in general, the trends and current penetrations differ greatly across host countries. Figure 2 indicates that especially in

emerging markets and developing countries foreign banks presence grew sharply, with market shares of 36 and 45 percent in 2009, up from 18 and 24 percent in 1995. In many of these countries, foreign banks now play important roles in financial intermediation, with average loan, deposit and profit shares between 42 and 50 percent. In contrast, in OECD countries financial intermediation remains mostly the prerequisite of domestic banks, with average foreign bank loan, deposit and profit shares of around 20 percent.

Within the emerging market and developing country group, substantial regional differences exist though. Growth rates over this period were by far the highest in Eastern Europe and Central Asia (225 percent) and foreign bank penetration in this region is now the second largest at 47 percent. Increases were also large in South Asia (120 percent), but as the base was very low, penetration in this region remains relatively limited, only 14 percent of the banks active in this region are foreign owned. Latin America saw very strong growth early in the period, but after 1999, in the aftermath of the Brazilian and Argentine crises, many foreign banks exited the region and new entries remained limited until investment picked up again in 2006. Still in Latin America shares went up considerably over the sample period, from 25 to 39 percent. Foreign bank penetration in Sub Saharan Africa, already high in 1995 at 31 percent, in part due to colonial links, rose further over the sample period and in 2009 over 50 percent of the banks active in the region were foreign owned.

Foreign bank ownership importantly also varies by home country as some countries export (many) more banks than others do (Figure 3). Not surprisingly, OECD countries export the largest number of foreign banks, 883 in 2009. The biggest investors are banks from the United Kingdom (10 percent), the United States (9 percent) and France (7 percent). Emerging markets and developing countries export much fewer banks, 268 and 97 respectively. However, this still implies that banking groups headquartered in emerging markets or developing countries own close to 30 percent of all foreign banks, a non-negligible share.

Global banks from OECD countries tend to invest mostly in emerging markets or in other OECD countries. Banks from emerging markets tend to invest in

emerging markets and developing countries and those from developing countries tend to invest mostly within their own income group. So banks, taking into account competition and growth opportunities, seem to seek out those host countries that are relatively similar in income levels to their home market. Among developing countries and emerging markets these patterns have strengthened over time, highlighting the increasing role of South-South investment in foreign bank ownership, as analyzed by Van Horen (2006).

Furthermore, banks tend to invest within their own geographical region (Figure 4). Splitting countries in four broad geographical regions that cut across income groups (America, Asia, Europe, and Middle East and Africa), we see that both in 1995 and 2009 the share of foreign banks coming from countries within the region is always more than 50 percent. In all regions except America, the intraregional share has increased over time, which mirrors the trend towards greater intraregional activity found in trade.¹ This pattern may not surprise since research has shown that foreign banks tend to follow their customers and therefore tend to enter countries with strong trade linkages (e.g., Goldberg and Grosse, 1991). In addition, studies have found that banks tend to invest in countries that are (geographical and/or institutional) close (e.g., Buch and De Long, 2004; Galindo, Micco and Serra, 2003) or, as Stijn Claessens and I show, are further away from competitor home countries (Claessens and Van Horen, 2012b).

However, some difference exists between banks from different income groups. While almost 50 percent of banks from advanced countries venture outside their region (reflecting past colonial linkages or desires to operate globally), the vast majority of investments done by banks from emerging markets and developing countries are within their own region. A possible explanation for this difference is the fact that both distance and competitor remoteness concerns seem to be more important drivers behind foreign entry decisions of these banks (Claessens and Van Horen, 2012b).

¹ As shown by Whalley and Xin (2007), trade has become increasingly more regional over the last three decades, which they explain by the proliferation of regional free trade agreements.

Finally, it is important to realize that foreign banks differ substantially with respect to their business models, size and profitability. Some banks are important players in the domestic financial system, while others are just niche players. This difference tends to be closely related to the form of entry: through a greenfield investment or by taking over a domestic bank including its local branch network. Importantly, funding structures differ a lot as well. While all foreign banks to some extent rely on funding by their parent, some of them generate a large part of their funding locally by accessing the local deposit market. As I will argue in Section 4 these differences in funding models have important implications for the stability of credit provision by a foreign bank during a financial crisis.

Summarizing, the data that Stijn Claessens and I collected show not only that foreign banks have become much more important over the last two decades in many countries' banking systems, but also that there is much heterogeneity among foreign banks' investment patterns. In the next sections I will have a closer look at how foreign banks affect the provision of credit during tranquil and crisis times and argue that it is important to take this heterogeneity into account when re-thinking the costs and benefits involved with foreign bank ownership.

Impact of foreign banks on domestic credit

In general studies have found that foreign banks have a positive impact on the domestic financial system as they lower the overall costs and increase the quality of financial intermediation, increase access to financial services and enhance financial and economic performance of their borrowers (Claessens, Demirguc-Kunt and Huizinga, 2001; Clarke, Cull, Martinez Peria and Sanchez, 2003, Martinez-Peria and Mody, 2004; Claessens, 2006). Therefore, before the crisis the general consensus was that the benefits of foreign banks greatly outweigh their costs.

Likely a number of factors are behind these effects. First, foreign bank presence can increase competition within the host country. Second, the entry of foreign banks can lead to the introduction of new, more diverse products, greater use of up-to-date technologies, and know-how spillovers (e.g., as people learn skills

at foreign banks, they may move to domestic banks). Third, foreign banks likely pressure governments to improve regulation and supervision, increase transparency, and more generally catalyze domestic reform (Levine, 1996).

However, the literature also shows that these effects of foreign bank presence tend to depend on some conditions. For example, limited general development and entry barriers seem to hinder the effectiveness of foreign banks and can lead to “cream skimming” (Garcia-Herrero and Martinez Peria, 2005; Demirguc-Kunt, Laeven and Levine, 2004; Detragiache, Gupta and Tressel, 2008; Beck and Martinez Peria, 2007). Also, the relative size of foreign banks’ presence appears to matter: with more limited entry (as a share of the total host banking system), fewer spillovers seem to arise, suggesting the existence of some threshold effect (Claessens and Lee, 2003). Furthermore, Stijn Claessens and I found that an important interplay exists between (cultural and institutional) distance of foreign banks to their host country and their performance in the local economy (Claessens and Van Horen, 2012c).

In terms of access to financial services, greater foreign bank presence seems to help, although here results depend (even) more on individual bank characteristics. Clarke, Cull and Martinez Peria (2001) find that foreign bank entry improves financing conditions for enterprises of all sizes, although larger firms benefit more. Beck, Demirgüç-Kunt and Maksimovic (2004) and Berger, Hasan and Klapper (2004) instead conclude that a larger presence of foreign banks leads to a greater availability of credit to SMEs. Brown, Ongena, Popov and Yesin (2011) find, on the other hand, evidence of greater access to finance for more transparent firms when more foreign banks are present in a country. Gianetti and Ongena (2012) show that large and foreign firms are more likely to have a relationship with a foreign bank, while small firms tend to be served by private domestic banks. In addition, they find that an increase in foreign bank presence increases the probability that a firm gets access to bank loans and that this holds for all types of firms.

The extent to which foreign banks contribute on net to financial sector development and, related, to access to financial services remains one of the most

controversial aspects of foreign bank entry. Although some studies have looked at the relationship between private credit and foreign bank ownership (most notably Detragiache, Gupta and Tressel 2008 and Cull and Martinez Peria 2011), surprisingly little is known under what conditions foreign ownership positively relates to private credit and when negatively.

In a recent paper, Stijn Claessens and I therefore explore in more detail under what conditions foreign ownership positively relates to private credit extension and when negatively (Claessens and Van Horen 2012a). In particular, we examine the relationship between foreign bank presence and levels of private credit to GDP for 111 countries representing all levels of development. Figure 5 shows a simple correlation between foreign bank presence and the level of private credit in 111 countries. It shows that although there seems to exist a negative relationship, it is not very strong as there are quite a few outliers. This raises the question what role do home and host country characteristics play?

To get a better sense of the interplay between foreign bank heterogeneity and the relationship between the presence of foreign banks and private credit to GDP, we run cross-country regressions. The dependent variable is the ratio of private credit to GDP (average over 2005-2007 to smooth out business cycle fluctuations), and the variable of interest captures foreign presence as measured by the ratio of foreign bank assets to total bank assets in the country (in 2004 to limit as much as possible joint endogeneity concerns). In addition, we include a number of standard control variables known to affect the level of private credit in an economy: GDP per capita, inflation, availability of information to creditors and the cost of enforcing contracts.

We find strong evidence that results very much depend on host country characteristics. While on average we find a negative relationship between foreign bank presence and private credit, once we split the sample into developing countries, emerging markets and advanced economies, this negative relationship is only apparent for the first group (which is in line with the findings of Detragiache, Gupta and Tressel, 2008). Furthermore, when splitting the sample across other dimensions, we find that this negative relationship between private credit and

foreign bank presence, only seems to occur in countries where banks have a limited market share, when enforcing contracts is costly and when credit information is only available to a limited extent.

In addition, we examine whether distance between home country of the foreign bank and the host country matters. We find for our sample of emerging markets and developing countries that foreign bank presence is only statistically significant negatively related to private credit when foreign banks are relatively distant. This is in line with theoretical and empirical evidence that suggests that distance makes it harder for foreign banks to extend credit (see, for example, Hauswald and Marquez 2006; Mian 2006). Although one has to be careful to make any inferences about the direction of causality, these results suggest that it is not so much the level of development (or the institutional environment) of the host country that matters, but rather the fact that foreign banks that are more remote tend to enter countries with such characteristics. This large distance between home and host country in turn might make foreign banks engage in cream-skimming which in turn negatively affects credit.

While these findings are only suggestive, they do point towards the importance of considering bank, home and host country characteristics when studying the impact of foreign banks on domestic financial sector development. In the next section I will show that this is also the case when examining the impact of foreign banks on financial stability.

Foreign banks and financial stability

While it is realized that foreign banks can offer valuable diversification services, (especially recently) concerns have been raised on the risks to financial stability that foreign banks may introduce. So, what do we know about the impact of foreign bank ownership on credit supply during times of crisis?

Currently the debate mostly focuses on the impact that funding shocks to the parent have on credit provided by their affiliates. For example, the IMF has pointed to the presence of foreign banks in developing countries as a key mechanism

through which the 2008-2009 crisis was transmitted from advanced to developing countries (IMF, 2009). Policy initiatives like the Vienna Initiative have been specifically aimed to avoid this type of transmission.² Some earlier empirical studies indeed showed that (funding) shocks to parent banks can be transmitted to their foreign subsidiaries with negative consequences for their lending (Peek and Rosengren, 1997, 2000). And more recent evidence also indicates that during the global financial crisis global banks were transmitting shocks across borders via their affiliates. Specifically, Cetorelli and Goldberg (2012) show that global banks actively manage their inter-office positions: when faced with a funding shock they tend to reallocate capital within the holding towards “important” subsidiaries.

Using the global financial crisis as an event study, several papers have compared credit supply of foreign banks with that of domestic banks during the global financial crisis. De Haas and Lelyveld (2012), for example, compare foreign banks with large domestic banks and find that the former group on average contract more. De Haas, Korniyenko, Loukoianova and Pivovarsky (2011) and Mihaljek (2010) find similar results for a sample of Eastern European countries.

Stijn Claessens and I performed a similar exercise using our database which covers almost the universe of banks focusing especially on heterogeneity within the group of foreign banks (Claessens and Van Horen 2012a).³ We find that while on average foreign banks reduced lending more compared to domestic banks, there was a clear difference between countries where foreign banks control more than half the market and those in which they do not. Only in the second group did foreign banks contract lending more compared to domestic banks. Furthermore, our results show that while both domestic as well as foreign banks that were importantly funded with local deposits were more likely to continue lending during the crisis, this was especially important for foreign banks.

The importance of accounting for these differences is also confirmed by a

² The Vienna Initiative is 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.

³ The results can be found in the working paper version of this paper (IMF Working Paper No. 12/10).

recent paper of Cull and Martinez Peria (2012) who show that in Eastern Europe, loan growth by foreign banks fell more than that of domestic private banks during the crisis, but that in Latin America foreign banks did not contract their loans at a faster pace. The distinction between the two continents seems to be driven by differences in business models due to differences in regulation. For example, foreign banks in Latin America were, forced by regulatory requirements, mostly funded through a domestic deposit base with most of the lending denominated in domestic currency. In Eastern Europe, on the other hand, many foreign affiliates resorted to wholesale funding from non-local sources (including their parent) and denominated (at least in some countries) a substantial part of their loans in foreign currencies (Kamil and Rai, 2010)

While providing interesting insights in the behavior of foreign banks studies using aggregate bank balance sheet data have two important weaknesses. First, they cannot fully control for demand shocks if domestic and foreign banks have different clients that are differently affected by the crisis. Second, they cannot say anything about whether there is a pass-through to firms, i.e. whether there truly are real effects resulting from the credit contraction of foreign banks. Related, given that the data are aggregate they can potentially hide the fact that maybe small firms are affected while large firms are not.

While not studying the global financial crisis but the 1998 Russian default, Schnabl (2012) circumvents some of these problems by using data on exact lending by banks to firms. This allows him to control for changes in demand at the firm level. He shows that the negative liquidity shock resulting from the Russian default led international banks to reduce lending to domestic and foreign owned Peruvian banks. These banks in turn reduced lending to Peruvian firms. Therefore Schnabl (2012) provides strong evidence of a transmission mechanism of parent funding shocks to their foreign affiliates which impacts the credit provision to firms. However it is hard to tell whether these results can be generalized. It is possible that features that are specific to Peru exist that explain why shocks were transmitted in this case, but might not in other situations.

Popov and Udell (2012) take a different approach and use a survey conducted on a group of SMEs in a number of Eastern European countries. This

allows them to differentiate between firms that want credit but cannot get it, firms that get a loan and firms that do not want a loan. They show that if banks in the vicinity of the firm are in distress, the likelihood of a firm being credit constrained increases. In other words, they find evidence that negative shocks to bank's balance sheets are transmitted to firms (especially those that are high-risk and have fewer tangible assets) and that this also holds for shocks to the balance sheet of the parents of the foreign owned subsidiaries. In other words, they also find evidence of a transmission channel through foreign bank ownership.

In a recent paper that I wrote with Steven Ongena and Jose Luis Peydro we link banks to firms in a number of Eastern European countries (Ongena, Peydro and Van Horen 2012). This allows us to examine whether firms linked to foreign owned banks experience a stronger reduction in their profitability, sales or operational revenue compared to firms linked to domestic banks during the global financial crisis. We find that foreign owned banks reduce credit more compared to domestic banks (albeit not compared to domestic banks that received a lot of funding from the international capital market in the years leading up to the global financial crisis). This reduction in credit was mirrored by a reduction in borrowing by firms linked to foreign banks and subsequently had a negative impact on these firms' profitability, sales and operational revenue. However, only smaller firms and (to a lesser extent) firms with less tangible assets were affected.

An important difference between the global financial crisis and previous crises is that the recent crisis episode erupted in foreign banks' parent countries, while previous crises were endemic to developing countries and emerging markets. Therefore it is not surprising that the debate almost exclusively focuses on the impact of parent funding shocks on the lending by their affiliates. However, when thinking about the impact of foreign banks on financial stability it is important to not lose sight of the positive impact that research has found foreign banks to have on financial stability as well.

Crisis episodes that originated in a number of emerging markets and developing countries in the early and late nineties, have fuelled a substantial literature examining the role of foreign banks when a host country is hit by an

adverse shock. In general these studies find that under these circumstances foreign banks actually behave as a stabilizing force in terms of credit supply. For example, in Eastern Europe, domestic banks contracted their credit base during crises between 1993 to 2000, whereas greenfield foreign banks did not (de Haas and van Lelyveld, 2006). In addition, foreign banks in Latin American countries showed more robust loan growth, a more aggressive response to asset deterioration, and greater ability to absorb losses than domestic banks did in the mid and late nineties (Crystal, Dages and Goldberg, 2001, 2002). More generally, for a sample of 45 large multinational bank holdings, De Haas and Lelyveld (2010) find that due to support by the parent bank, foreign affiliates did not need to rein in their credit supply during a financial crisis in the host country, while domestic banks had to contract their lending.

In addition, foreign ownership also is found to have another positive effect on financial stability, this time related to the stability of cross-border lending. In two recent papers written with Ralph De Haas we find that banks when faced with a funding shock reduce their cross-border lending (De Haas and Van Horen 2012). However, we also find that they are more likely to stay committed to countries in which they have a subsidiary (De Haas and Van Horen 2013). This is especially important in countries with weak institutions. Therefore, the existence of foreign affiliates can stabilize cross-border flows to a country during crisis times.

Concluding, foreign ownership can have a positive impact on financial stability as cross-border lending is more stable during a crisis when global banks made a commitment to the country in terms of bricks and mortar. Furthermore parents can and do support their affiliates in times of stress. What is less clear is under what circumstances foreign banks transmit shocks that parent banks are faced with and how this affects the real economy. This is an area that could benefit from more extensive analyses.

Final remarks

The policy maker's goal is to reap the benefits from international capital flows while guarding against costs from potential financial instability. By bringing about greater international financial integration, globally operating banks have provided many

benefits. But at the same time they have also proven to be important factors behind the buildup and transmission of imbalances. As such, the behavior and effects of these banks should require careful regulatory and policy makers' attention.

A lesson from the experience of different countries during the global financial crisis is that banks that are funded by deposits tend to pose fewer risks, while banks that rely on short-term wholesale funding represent a greater risk. This holds for both domestic as well as foreign owned banks. Therefore there could be a case for requiring foreign owned banks to hold more deposits, as is already mandatory for subsidiaries operating in many Latin American countries. In fact, a number of large European banking groups are already focusing on increasing the local deposit base of their Eastern European subsidiaries.

Another important lesson is that having banks operating across national borders can be incompatible with national supervision. The scope for externalities and spillovers, already large at the national level, are even greater globally. As outlined by CIEPR (2012) without global rules and shared responsibilities for regulation and supervision there is a clear danger that measures that might be in a nation's (short-term) interest take priority over what is optimal on a supra-national level. Therefore common ground rules are needed to prevent spillovers, including those arising from bank failures, to be imposed on other countries. This requires common rules and shared mechanisms for burden sharing. Making this the goal is especially important as the alternative could be that national regulators start to enforce banks active in their jurisdiction to ring-fence their local operations. This could undermine international financial integration. While establishing a global supervisor is not feasible at this stage, the establishment of the European banking union with integrated regulation and supervision, and hopefully also common resolution frameworks and burden sharing to deal with weak financial institutions, is an important step in the right direction. This can create an institutional structure that matches the current state of high regional and global financial integration. However, it is important to realize that the banking union does not include Eastern European countries. Therefore, these countries will still be faced with possible

misaligned incentives at the home and host country in case of failure of one of the European banking groups with a large presence in that region.

Whether, from efficiency and financial stability perspectives, foreign banks should establish a presence in a host country as a branch or subsidiary is not directly clear. From the perspective of host countries where foreign banks play an important role in financial intermediation, subsidiaries are likely to be preferred as these are regulated and supervised by the host country. This can allow host country supervisors to force foreign banks operating in their jurisdiction to rely more on local deposit funding and to ring-fence their capital and liquidity. However, this at the same time hinders capital to move freely within the holding company and is therefore synonymous with more financial market segmentation. Branches allow a smoother and potentially more efficient allocation of liquidity internationally and might therefore in the long-run be socially more optimal.

Finally, in order to understand the implications of international capital flows intermediated by banks in general and foreign bank ownership in particular, having good data to monitor trends and conduct empirical analyses with is paramount. As I have shown foreign banks are a heterogeneous group and accounting for this heterogeneity is important when trying to understand their impact on access to finance and financial stability. The database on bank ownership collected by Stijn Claessens and myself can hopefully provide a contribution to a better understanding. In addition, the extensive new data collection effort on international bank lending implemented jointly by the BIS, Central Banks and international financial institutions, is extremely valuable as it will provide a much better overview of the cross-border interconnectedness of national banking systems.

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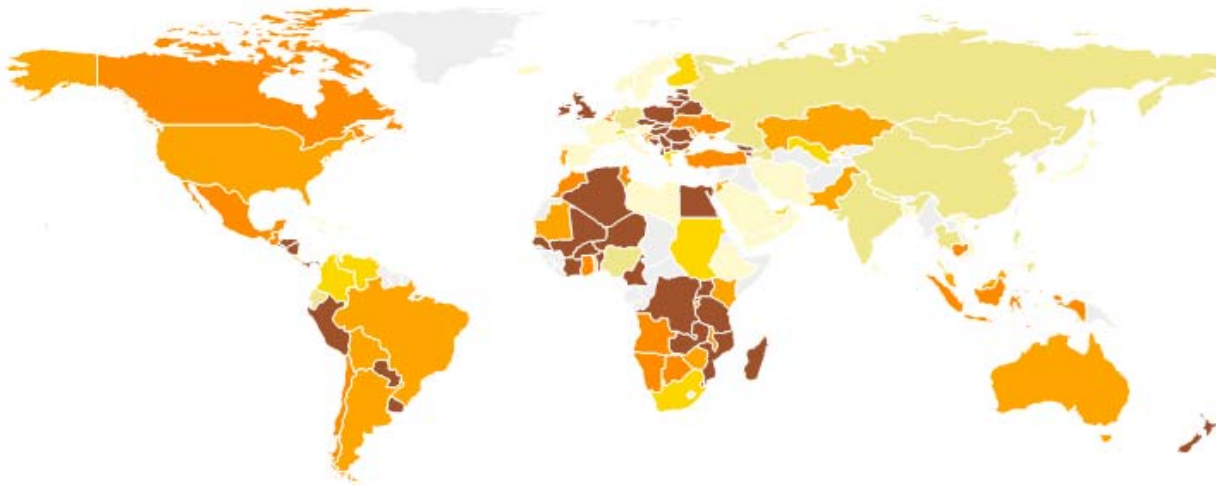
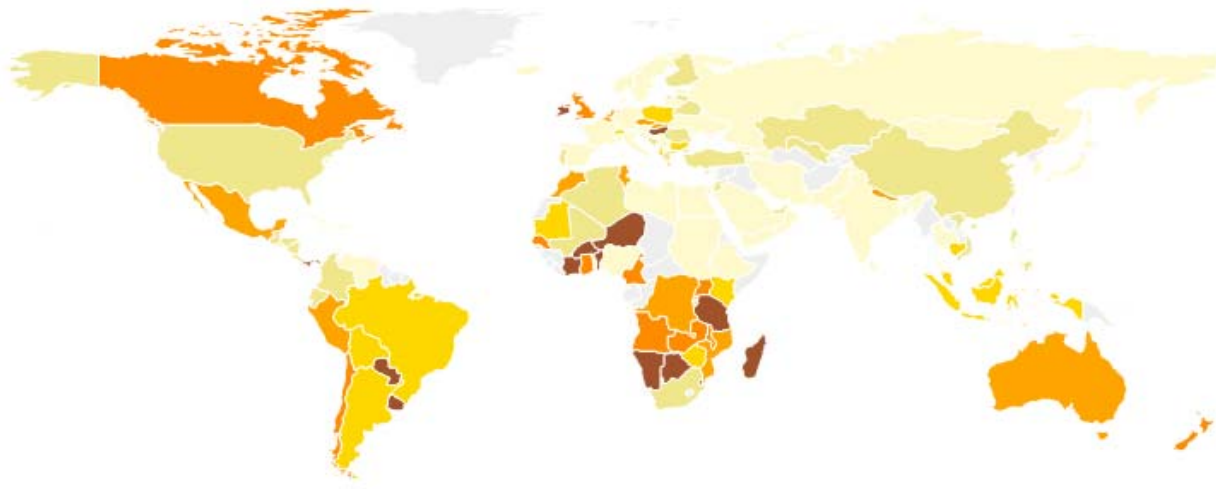
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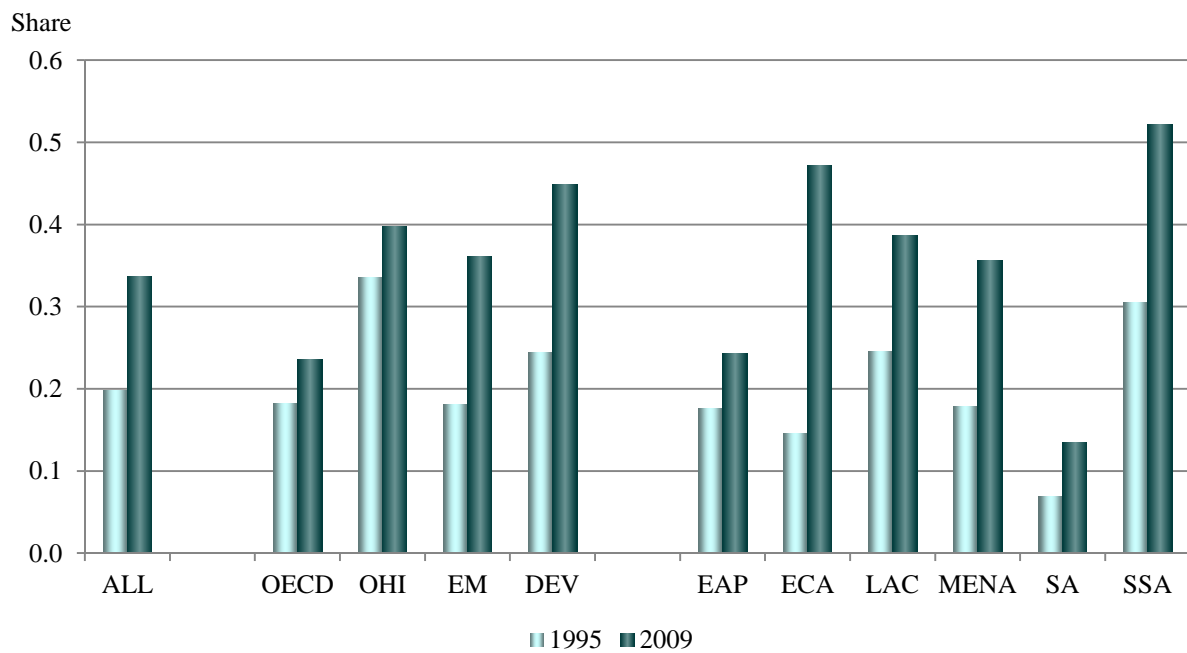
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Figure 1
Foreign Bank Presence, 1995 and 2009



Source: Claessens and Van Horen (2012a)

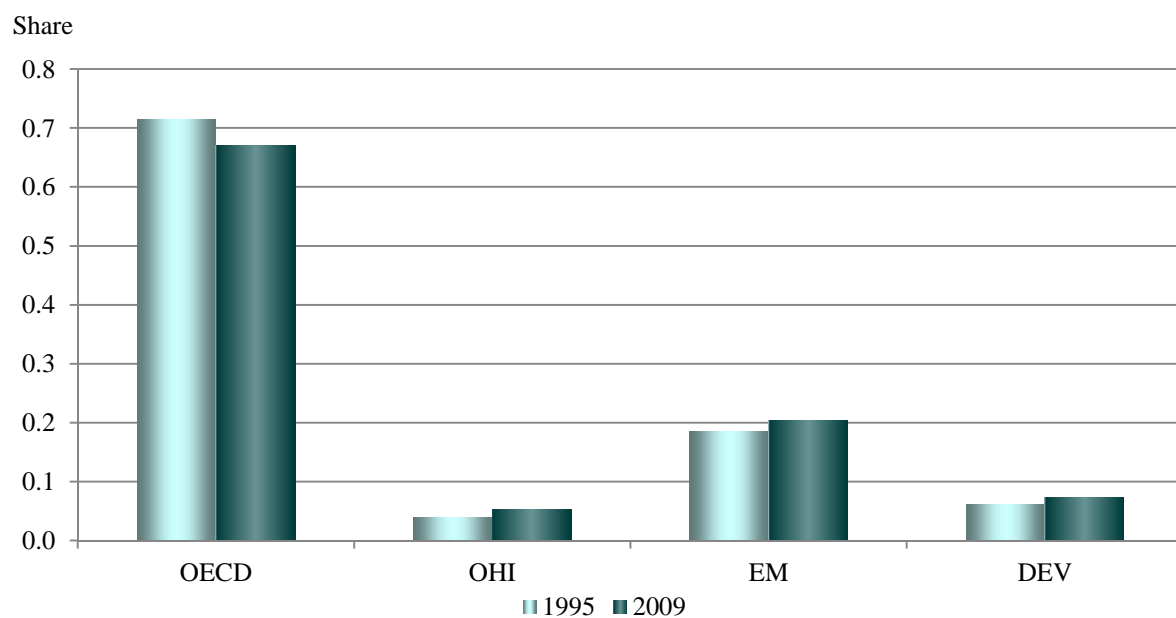
Figure 2
Share of foreign banks by income level and region, 1995 and 2009



Source: Claessens and Van Horen (2012a)

Note: OECD includes all core OECD countries. Other high-income countries includes all countries classified as high-income by the World Bank in 2000 but not belonging to the OECD. Emerging markets includes all countries that are included in the Standard and Poor's Emerging Market and Frontier Markets indexes and that were not high-income countries in 2000. Developing countries includes all other countries. The regions represent the regional classification as used by the World Bank.

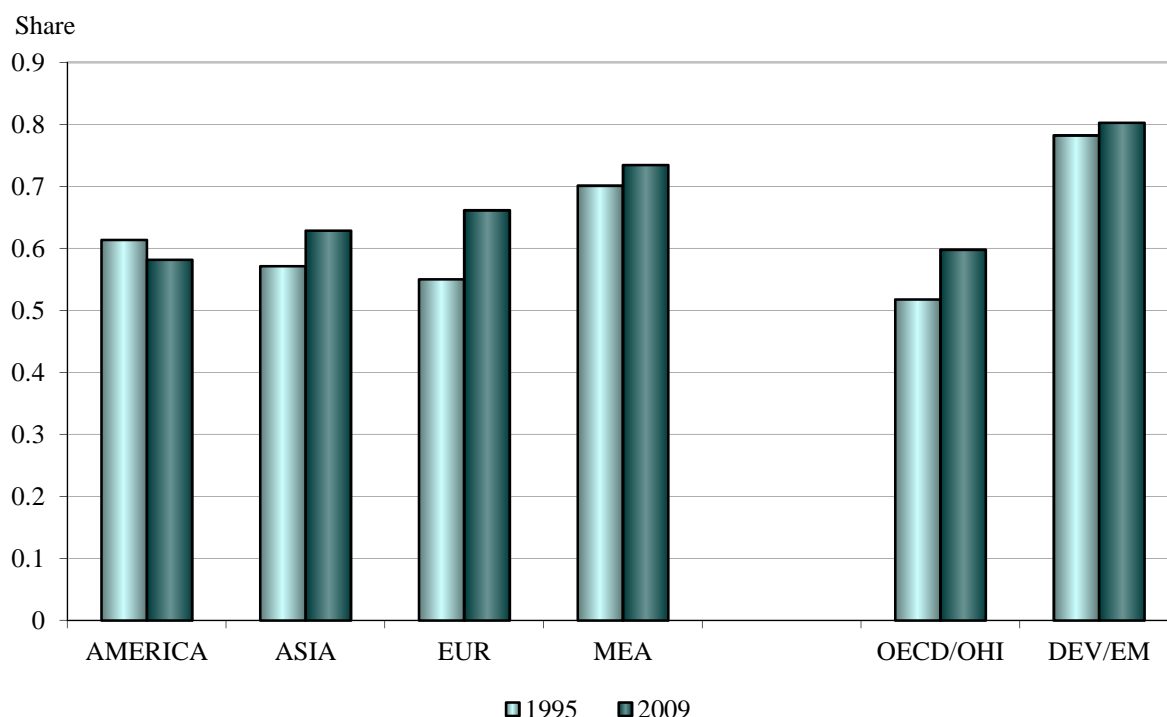
Figure 3
Share of Foreign Banks by Home Income Group, 1995 and 2009



Source: Claessens and Van Horen (2012a)

Note: OECD includes all core OECD countries. Other high-income countries includes all countries classified as high-income by the World Bank in 2000 but not belonging to the OECD. Emerging markets includes all countries that are included in the Standard and Poor's Emerging Market and Frontier Markets indexes and that were not high-income countries in 2000. Developing countries includes all other countries.

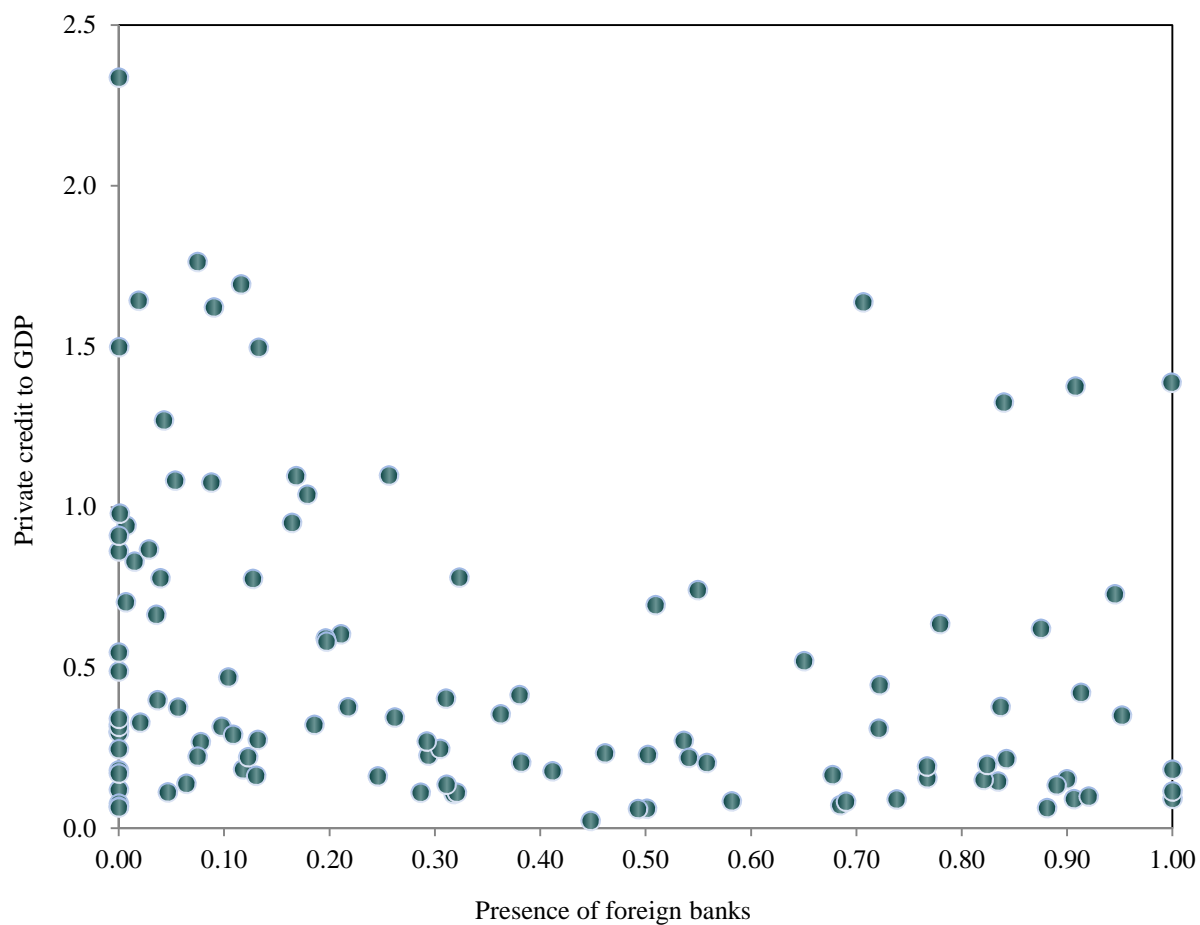
Figure 4
Share of foreign banks investing in own region, 1995 and 2009



Source: Claessens and Van Horen (2012)

Note: The first four column pairs show for each of the four regions the share of foreign banks from the region investing in host countries located in that same region (e.g. banks from the United States investing in Canada or any Latin American country). Countries are grouped in four geographical regions irrespective of the income level of the countries. "America" includes Canada, United States and all countries in Latin American and the Caribbean, "Asia" includes all countries in Central, East and South Asia and the Pacific countries including Japan, Australia and New Zealand. "Europe" includes all Western and Eastern European countries "MEA" includes all countries in the Middle East and North and Sub-Saharan Africa. In the last two column pairs we first grouped the foreign banks according to the income level of the home country (OECD/OHI or DEV/EM) and then determined for each of the banks whether it invested in its own region or not (e.g. an American owned foreign bank is included in the group OECD/OHI; if it has invested in one of the countries included in the region "America" the investment is considered regional).

Figure 5
Relation between private credit/gdp and presence of foreign banks



Source: Claessens and Van Horen (2012a) and IMF International Financial Statistics

Note: The graph shows the simple correlation between private credit and the presence of foreign banks in 111 countries. The horizontal axis depicts the share of foreign bank assets in total bank assets in 2004, the vertical axis shows private credit relative to GDP averaged over 2005-2007.