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Foreign Bank Entry

Experience, Implications for Developing Countries, and Agenda for Further Research

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Summary findings

In recent years foreign bank participation has increased tremendously in several developing countries. In Argentina, Chile, the Czech Republic, Hungary, and Poland, for example, more than 50 percent of banking assets are now in foreign-controlled banks. In Asia, Africa, the Middle East, and the former Soviet Union the rate of entry by foreign banks has been slower, but the trend is similar.

Although the number of countries welcoming foreign banks is growing, many questions about foreign bank entry are still being debated, including:

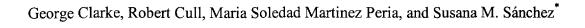
- What draws foreign banks to a country?
- Which banks expand abroad?
- What do foreign banks do once they arrive?
- How does the mode of a bank's entry—for example, as a branch of its parent or as an independent subsidiary company—affect its behavior?

Clarke and his coauthors summarize current knowledge on these issues. In addition, since the existing literature focuses heavily on industrial countries, they put forth an agenda for further study of the effects of foreign bank entry in developing countries.

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Foreign Bank Entry: Experience, Implications for Developing Countries, and Agenda for Further Research



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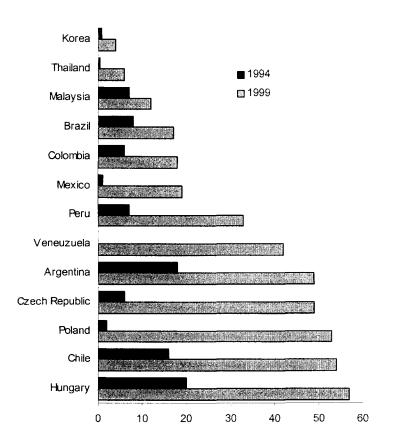
Foreign Bank Entry: Experience, Implications for Developing Countries, and Agenda for Further Research

Introduction

Foreign bank entry refers to a process by which foreign banks set up operations in a host country mainly by either opening up a branch or a subsidiary. According to Tschoegl (1985), the current degree of integration across banking sectors around the world can only be compared to that existing at the eve of World War I. Several countries that allowed foreign bank entry in 1920 restricted it between 1920 and 1980. At the same time, no country that forbade foreign entry in 1920 opened up over the same period. In recent years, the pendulum has swung back towards entry. The trend has been especially pronounced in developing countries, although the pattern of entry has not been uniform (Figure 1). Latin America and the transition countries of Central Europe have been quickest to permit foreign participation in banking – in Argentina, Chile, the Czech Republic, Hungary, and Poland, over fifty percent of total banking assets are in foreign-controlled banks. In Asia, Africa, the Middle East, and the Former Soviet Union, progress has been much more modest.

This paper summarizes the existing literature on foreign entry, focusing on the four main questions that researchers have attempted to address: (1) What draws foreign banks to a country? (2) Which banks expand abroad? (3) What do foreign banks do once they arrive? and (4) How does mode of entry – for example, as a branch of its parent or as an independent subsidiary company – affect behavior? Answers to these questions could help address concerns that foreign entry will weaken domestic banks, diminish the ability of local regulatory and monetary authorities to influence bank behavior, unduly expose the host country to economic shocks of the entrants' home countries, and imply less credit for certain market segments, such as small and medium-sized enterprises (SMEs), or at certain key times, such as during crises.





Although this paper is mainly concerned with the effect of foreign bank entry on developing countries, the existing literature has primarily focused on developed countries, particularly the United States. It is important to keep this in mind when assessing the likely effect of foreign bank entry on sector performance and behavior in developing countries. For example, many studies have found that foreign banks in the United States are less efficient than domestic ones, perhaps due to linguistic and cultural barriers to business. However, recent cross-country research and country case studies suggest that the opposite is true for developing countries – foreign banks appear more

¹ See, for example, DeYoung and Nolle (1996), Hasan and Hunter (1996), Mahajan, Ranjan, and Zardkoohi (1996), Chang, Hasan, and Hunter (1998).

efficient than their domestic counterparts in these countries.² If policymakers in developing countries primarily relied upon the literature on efficiency from industrialized countries, they might therefore underestimate the potential benefits of foreign entry in developing countries to the detriment of sector development. Therefore, a second goal of this paper is to identify areas where knowledge about the effects of foreign bank entry in developing countries is limited and to put forth an agenda for future research.

I. What Draws Foreign Banks? Location-Specific Factors

Empirical research on the factors that compel foreign banks to enter a country indicate that the degree of economic integration between a foreign bank's home country and the host country which it enters, the market opportunities available in the host country, and entry restrictions and other regulations (including tax treatment) have all affected the pattern and timing of foreign entry. We discuss each factor in turn. Again, much of that evidence comes from the United States, although in recent years some cross-country evidence has begun to emerge.³

I.A. Following Clients; Home-Host Country Economic Integration

Multiple studies have found a positive and significant correlation between the flow of bank foreign direct investment (FDI) and the extent of integration between home and host countries.⁴ A subset of those papers has examined the activities of foreign banks

² Cross-country evidence is found in Demirgüç-Kunt and Huizinga, (2000). On Argentina see Clarke *et al.*, (2000); Colombia, Barajas *et al.*, (2000); Hungary, Kiraly *et al.*, (2000); Greece and Portugal, Honohan (2000); and Turkey, Denizer, (2000).

³ U.S. states, however, do offer a unique laboratory for studying these issues, as they adopted different approaches to foreign entry. Foreign banks in the United States can employ various organizational forms, have entered different geographic regions unevenly, have originated from different countries at different rates, and have faced a changing legal and economic environment. These features provide sources of variation that may provide information of more general applicability.

⁴ The extent of economic integration has been measured by geographical distance, volume of bilateral trade flows, and/or volume of bilateral FDI. Ball and Tschoegl (1982) and Grosse and Goldberg (1991) include geographical distance between home and host countries as a measure of integration. Goldberg and Saunders (1980) and (1981), Goldberg and Johnson (1990), Grosse and Goldberg (1991), Brealey and Kaplanis (1996), and Yamori (1998) use bilateral trade flows, in addition to non-financial sector FDI, as a measure

operating in the United States or the U.K. (hereafter, "from-many-to-one-host" studies).⁵ Another subset has analyzed the foreign activities of banks from one country throughout the world. Those countries are the U.S., Japan, the U.K., and Germany (hereafter, "from-one-to-many-hosts" studies).⁶ In general, the studies that focus on the linkages between economic integration and foreign bank entry are frequently taken to support the claim that banks tend to follow their customers abroad.

However, on the basis of those studies, it is unclear whether FDI in the non-financial sector exerts a causal influence on the FDI of banks. Causation might run in the other direction, or more probably, some omitted factor or factors could be driving FDI in both sectors. Most studies control for market size (as measured by GDP or population) and foreign trade links between home and host countries. Both market size and fereign trade are, as expected, positively linked to banking sector FDI, but those controls might not be sufficient ones. Omitted variables problems aside, a key limitation to this line of research is that the positive association between banking FDI and non-financial FDI does not necessarily imply that foreign banks are providing financial services only, or even principally, to the affiliates of clients from their home countries. Co-location does not necessarily imply a high level of interaction between banks and non-financial firms from the same home country.

Seth, Nolle, and Mohanty (1998) directly address this shortcoming of the literature. Their study investigates the lending patterns of U.S.-based banks from Japan, Canada, France, Germany, the Netherlands, and the U.K., countries that account for the vast majority of foreign bank activity in the United States. Also, they examine the

of economic integration. Finally, Nigh, Cho, and Krishnana (1986), Goldberg and Johnson (1990), Sagari (1992), Brealey and Kaplanis (1996), Miller and Parkhe (1998), and Buch (2000) among others focus on

bilateral FDI flows.

⁵ Hultman and McGee (1989) and Budzeika (1991) examine the assets of foreign banks operating in the U.S. in the 1970s and 80s. Fisher and Molyneux (1996) study the number of foreign banks and their staffing levels in London from 1980-89.

⁶ On foreign assets of U.S. banks, see Miller and Parkhe (1998), Goldberg and Johnson (1990), Nigh, Cho, and Krishnan (1986), and Sagari (1992). On foreign assets of German Banks see Buch and Lapp (1998) and Buch (2000). On foreign assets of Japanese banks see Yamori (1998). Moshirian and Van der Laan (1998) provide evidence for U.S., U.K., and German banks. Theirs is the only study that fails to find a strong link between non-banking sector FDI and foreign bank penetration.

borrowing patterns of non-bank U.S. affiliates of firms from those countries. They find that banks from four of the six countries (Japan, Canada, the Netherlands, and the U.K.) allocated a majority of their loans to non-home country borrowers for some or all of the 1981-92 period. The authors conclude that the 'follow the customer' hypothesis might have more limited applicability than previously speculated.

In many developing countries, that hypothesis might have even less applicability. In a study of the activities of U.S. banks in 32 countries from 1987 to 1995, Miller and Parkhe (1998) find that greater FDI to a host country is associated with foreign bank entry, except for developing countries.⁷ Additional research on the activities of foreign banks in developing countries is clearly warranted. However, initial indications are that, in developing countries, foreign entrants face relatively less effective domestic competition. Developing host countries, therefore, might offer substantial profit opportunities in the provision of financial services. In that sense, foreign penetration in banking might precede, and perhaps help bring about, entry of non financial-sector firms.

I.B. Opportunities in Host Country

A number of recent studies provide support for the notion that foreign banks are attracted by profitable opportunities in host countries. Claessens, Demirgüç-Kunt, and Huizinga (2000) model foreign presence across 80 countries from 1988-95, and find that foreign banks are attracted to markets with low taxes and a high per capita income. Focarelli and Pozzolo (2000) employ a richer set of variables to control for host market profit opportunities. They model the location choices of 143 banks that had at least one shareholding abroad across 28 countries. Because those banks come from many different countries, theirs is the most extensive "from-many-to-many" study to date. In addition to controls for the degree of economic integration between countries (non-

⁷ They note that the absence of a relationship between FDI and entry for developing countries "can be partly traced to retrenchment by U.S. banks following Latin America's debt in the mid-1980s." (p. 376)

⁸ Yamori (1998) also finds GDP per capita in host countries to be a significant determinant of Japanese banks' choice of location abroad. Brealey and Kaplanis (1996) and Buch (2000) find a positive relationship between the presence of foreign banks and host country GDP.

financial FDI, bilateral trade, and geographical distance) and regulatory restrictions on bank entry, they include variables that measure the prospects for economic growth and the competitiveness of the banking sectors of the potential host countries.

They find greater entry where the expected rate of economic growth is higher and the banking system is on average less efficient. With respect to growth prospects, they find that host-country initial GDP per capita and inflation are negatively associated with foreign bank presence, while host-country stock market capitalization has a positive relation. There is substantial cross-country literature that finds that the signs on the relations between those three factors – inflation, real per capita GDP, and stock market development – and economic growth are the same as those found in Focarelli and Pozzolo (2000) for foreign bank presence. For that reason, the authors interpret their results to mean that foreign banks are more likely to enter host countries with better prospects for growth.

With respect to the efficiency of the host country banking market, they find greater foreign presence where local banks have higher average costs, lower net interest margins less charge-offs, and higher cash flows (signaling an inefficient use of capital). They interpret these results as being consistent with the hypothesis that foreign investors envision using their expertise and human capital in order to restructure inefficient banks. They also find greater foreign presence where average bank size is smaller, which, they speculate, is because it is easier to acquire such banks and there is greater opportunity to increase market share after the restructuring.

Although most of the 28 host countries in the Focarelli/Pozzolo study are developed, the study does include several developing countries, particularly the Czech Republic, Hungary, Mexico, Poland, Turkey, and South Korea. Since domestic banks are likely to be weakest in the developing countries, their results on the efficiency of the host

⁹ Their dependent variable is a dummy equal to one if bank i was present in country j in 1998. There are roughly 4000 bank-country observations in their regressions.

¹⁰ See Levine and Zervos (1998) and Levine (1999) for a summary of the literature on financial development and growth. The negative relationship between the level of real GDP per capita and economic growth rates is the so-called conditional convergence result.

country banking market are another indication that foreign banks are more likely to enter developing countries in order to exploit local profit opportunities. Case study evidence from Hungary, the transition country quickest to open up its banking sector, indicates that foreign banks in this country have become heavily involved in retail banking, both in deposit taking and consumer lending, providing further support for this hypothesis.¹¹ There is also some evidence that foreign competition has compelled some domestic banks to seek new market niches. 12

The indications to date are that foreign banks enter developing countries for somewhat different reasons than they enter developed ones. In particular, the 'follow the customer' motivation seems less important for developing countries than for developed ones, which suggests that foreign banks are genuinely interested in exploiting opportunities in the host country. Provided this does not leave some market segments, such as small businesses, with less access to financial services, this type of entry should bring substantial benefits to the host country.

More research on what motivates entry into developing countries is needed. It is, perhaps, unlikely that the Focarelli/Pozzolo results on local market opportunities would fully apply to the most underdeveloped countries, where profitability prospects are generally bleak. Cultural connections might also affect the ability of entrants to take advantage of local opportunities. For example, Berger, Klapper, and Udell (2000) find that foreign-owned banks headquartered in other South American nations are more likely to lend to some classes of Argentine small businesses than foreign banks headquartered in other countries, presumably since similar culture and language might offer them advantages over institutions from other places.

I.C. Host Country Regulation

The effects of host country regulations on foreign entry are straightforward – such restrictions limit competition and protect inefficient domestic banks. Focarelli and

¹¹ Bonin and Abel (2000). ¹² Ibid 11.

Pozzolo (2000) find that foreign banks prefer to make investments in countries with fewer regulatory restrictions on banking activity. Barth, Caprio, and Levine (2001b) provide cross-country evidence that tighter restrictions on entry into banking (whether for foreign or domestic banks) are associated with higher net interest margins and overhead costs. In addition, the likelihood of a major banking crisis is positively associated with limitations on foreign bank entry and ownership.¹³

Again, however, the most studied case is the United States, one that is highly atypical. As described by Goldberg (1992), before 1978 and the International Banking Act, regulatory restrictions on domestic and foreign banks were asymmetric, causing domestic banks to complain that foreign banks had unfair competitive advantages. In particular, foreign banks could establish offices across state lines, while domestic banks were severely restricted. The International Banking Act limited the operations of foreign banks across states, bringing their activities in line with those of domestic banks. In particular, new branches and agencies established by foreign banks outside their home states were only allowed to take the same type of deposits accepted by the Edge Act Corporation, an institutional form also available to domestic banks. However, foreign banks were allowed to retain their existing interstate operations, established prior to the effective date of the act. This resulted in an increase in foreign bank operations across state lines before the legislation came into effect.¹⁴

Although foreign entry restrictions grew more homogenous as restrictions on cross-state banking activity were gradually lifted in the 1980s and '90s, individual state regulations had substantial effects on the nature and pattern of foreign participation.¹⁵ Goldberg and Grosse (1994) provide econometric evidence that foreign banks had greater presence in states with less strict regulations on foreign activities. Hultman and McGee (1989) note that many states implemented reciprocity provisions, asset maintenance or

¹³ Demirgüç-Kunt, Levine, and Min (1999) find a similar result. Barth et al.'s (2001b) measures of limitations on foreign entry and ownership, and of more general entry requirements into banking, come from a survey of domestic regulators from 107 countries.

¹⁴ Goldberg (1992), p. 167.

¹⁵ See Kroszner and Strahan (1999) for econometric models of the pattern and timing of expansion of cross-state banking activity.

deposit requirements, and geographic restrictions to exert some influence on foreign bank activities within their borders. Furthermore, they argue that tax laws may also have had some impact on foreign banks' decisions regarding where to locate and what type of office to establish.¹⁶ These papers conclude that few U.S. states pursued an open policy that could be considered equivalent to a national treatment approach.

For developing countries, it will be interesting to contrast the experiences of those that pursued open, 'level-playing-field' approaches to foreign participation, such as Chile and Argentina, with others that have imposed special conditions on foreign banks such as Egypt and South Korea. Initial indications are that less open approaches have produced meager benefits.¹⁷

II. Which Banks Expand Abroad?

The characteristics of the banks that expand abroad might also provide some indications about the nature of their participation in a destination market. In 1988, for example, banks from sixty different countries had some form of office in at least one U.S. state. At first glance, this rich variation in entrants, entry mode, and location choice should offer evidence about the ownership-specific factors accountable for entry. However, most theoretical explanations of how ownership-specific factors affect entry revolve around a bank's degree of product differentiation or comparative advantage due to superior skills. Buch (2000) notes that, since it is difficult to obtain data that measure this sort of comparative advantage, most research on the determinants of entry has focused on location-specific rather than ownership-specific factors. Despite these data limitations, there is evidence indicating that bank size, efficiency, and home country restrictions on banking are important determinants of which banks expand abroad.

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¹⁶ As noted above, cross-country evidence from Claessens et al. (2000) indicate that high taxes deter foreign entry.

¹⁷ See, for example, Hao, Hunter and Yang (2000) on the efficiency improvements associated with foreign entry in Korea.

¹⁸ Damanpour (1990), p.128. The ten most important countries, however, accounted for almost 90 percent of the total assets of foreign banks in the U.S.

II.A. Size

There are multiple reasons to expect that large banks would be more apt to expand abroad. ¹⁹ In the first place, multinational enterprises are expected to be customers of larger banks and, therefore, it is more likely that these banks will be pulled along to new locations, and thus offer some services abroad. Second, banks with a large home-market share might have stronger incentives than other banks to search for risk diversification opportunities abroad. Finally, increasing returns to scale in some of the banking services that are characteristic of international banking, such as portfolio management and investment banking, could favor large banks.

Several papers have found a positive correlation between the size of banks and their degree of internationalization. Tschoegel (1983) studies the activities of the world's 100 largest international banks as of 1976 and finds that larger banks exhibit a greater presence worldwide. Grosse and Goldberg (1991) use data on the average characteristics of the home country banking sector to provide indirect evidence on the importance of size. They find that sector size was positively linked to foreign bank presence in the U.S. from 1980 to 1988. Studying the activities of Japanese banks in Korea, Ursacki and Vertinsky (1992) find a positive relationship between a bank's asset size and the number of branches. Williams (1996) and (1998) obtain similar findings for the case of foreign banks in Australia. In their recent study of the activities of foreign banks in 28 OECD countries, Focarelli and Pozzolo (2000) also find direct evidence that a bank's size, as measured by total assets, is positively correlated with its degree of internationalization.

II.B. Efficiency

There are two types of evidence on efficiency, one comparing the efficiency of foreign entrants with domestic competitors, the other showing that, within the subset of banks that expand abroad, those with the highest degree of internationalization are relatively more efficient. With respect to efficiency comparisons, several studies have

¹⁹ This discussion draws from Focarelli and Pozzolo (2000).

found that foreign-owned banks are, on average, less efficient than the domestic banks in developed host nations.²⁰ Hasan and Hunter (1996), for example, find that Japanese multinational banks in the U.S. are, on average, less efficient than U.S. multinational banks.²¹ However, some studies, in particular those that have not used the U.S. as the host nation in the analysis, have found that foreign institutions have nearly the same average efficiency as domestic institutions (Vander Vennet (1996), Hasan and Lozano-Vivas (1998)).²²

Efficiency comparisons between foreign and domestic banks in developing countries yield very different results. Claessens, Demirgüç-Kunt, and Huizinga (2000) find that foreign banks have lower interest margins, overhead expenses, and profitability than domestic banks in developed countries, while the opposite is true in developing countries. They interpret their results to imply that the reasons for foreign entry, as well as the competitive and regulatory conditions found abroad, differ significantly between developed and developing countries.

What case study evidence there is from developing countries also indicates that foreign entrants are relatively more efficient than domestic competitors. Barajas, Steiner, and Salazar (2000) compare the performance of foreign owned versus domestic banks in Colombia from 1985 to 1998. They find that foreign owned banks, regardless of whether they were originally owned by nationals or not, have fewer non-performing loans, lower reserve requirements, and are more productive. Clarke et al. (2000) find similar performance advantages for foreign banks operating in Argentina in the late 1990s. Bhattacharya, Lovell, and Sahay (1997) find that foreign banks are slightly more efficient than domestic ones in India.

²⁰ See, for example, DeYoung and Nolle (1996), Hasan and Hunter (1996), Mahajan, Ranjan, and Zardkoohi (1996), Chang, Hasan, and Hunter (1998), Miller and Parkhe (1999), Parkhe and Miller (1999), Berger, De Young, Genay, and Udell (2000).

²¹ Berger, Klapper, and Udell (2000) speculate that this disadvantage may stem from language, cultural, or supervisory/regulatory structures in the home countries of the foreign banks.

22 Vander Vennet (1996) focuses on European host countries; Hasan and Lozano-Vivas (1998) on Spain.

The second type of evidence, which models foreign entry as a function of efficiency (and other factors), comes again from Focarelli and Pozzolo (2000). They find that a bank's return on assets is positively correlated with the degree to which it expands abroad. They also find that banks with a higher share of non-interest income are more likely to have a foreign presence. Their interpretation is that more innovative banks look for new profit opportunities and, therefore, have both a larger share of revenues from non-traditional activities and a greater propensity to expand abroad. For developing countries, such entrants would appear to bring many benefits, depending on the services they choose to provide.

Size and efficiency are important determinants of which banks go abroad, but other, less studied factors also appear to play a role. For example, Calderon and Casilda (1999) review the process of foreign bank entry into Latin America over the last decade. They argue that the deregulation of the financial system in Spain, together with the increase in competition brought about by the EMU, led Spanish banks to invest heavily in Latin America in an aggressive attempt to expand their regional presence. They have tried to obtain a strong participation in commercial banking, while at the same time attempting to diversify and look for other business opportunities like investment banking, insurance, and pension funds.²³ In examining the activities of foreign banks in the U.S., Goldberg (1992) notes that foreigners were able to penetrate American banking in the 1980s because of greater funds availability. Over this period, many foreign countries like Japan had higher savings rates and trade surpluses than the United States and were trying to find places to invest. In summary, studies like Calderon and Casilda (1999) and Golberg (1992) suggest that there are other home country factors aside from size and efficiency that can push banks into expanding abroad.

²³ The authors argue that foreign entry (in particular by Spanish banks) has increased competition and brought greater stability to the local financial systems. However, foreign entry has also resulted in an increase in bank concentration, and, while operating costs have fallen, the cost of credit for bank clients has not dropped significantly.

II.C. Home Country Regulation

Home country regulations can affect the pattern and nature of foreign bank entry. These include restrictions on outward investment and more general regulations on bank behavior that have implications for the nature of competition that a bank can offer in a destination country. For example, Frankel and Morgan (1992) find that differences in cross-country regulatory requirements may have reduced foreign banks' costs relative to U.S. banks, thus enhancing their competitiveness.

In regressions that explain foreign presence, Focarelli and Pozzolo (2000) include as explanatory variables both home-country restrictions on banks' outward foreign direct investment and restrictions on domestic banking activities. They find that restrictions on outward foreign direct investment reduce the likelihood that local banks will enter other countries. Somewhat more surprisingly, they find that restrictions on domestic banks' activities lower the probability that those banks will enter foreign markets. They speculate that the restrictions reduce the efficiency of the banking sector, and, as a result, banks from such countries are less likely to have a comparative advantage with respect to the competitors in their destination market.²⁴

III. What Do Foreign Banks Do?

The aforementioned evidence indicates that foreign banks do not merely follow existing customers from their home countries abroad, but also they are attracted by host-country opportunities. In developing countries, it appears that foreign banks are even more apt to pursue local profit opportunities. But what form does that local participation actually take? In this section, we review the literature in three areas. First, we discuss the nature of competition with domestic banks. Next, we discuss the implications of foreign entry for stability. In addition to concerns that foreign banks will drive domestic ones out of business, there are stability concerns related to credit crunches. In times of

crisis, foreign banks may curtail their lending to the host country, further exacerbating existing problems. Finally, there is concern that foreign banks will 'cherry pick' the best available borrowers, while neglecting market segments like small and medium-sized enterprises. If cherry picking weakens domestic banks sufficiently that some must exit the market, the overall supply of finance to SMEs may decline.

III.A. Competition with Domestic Banks

Several studies have examined the activities of foreign banks in developed countries, particularly the U.S. For example, Goldberg (1981) finds that U.S. multinational banks tend to serve retail customer bases, whereas foreign institutions operating in the U.S. are oriented more towards wholesale business. Damanpour (1990) provides similar evidence by showing that foreign banks exhibit a heavy concentration of commercial and industrial loans in their portfolios. Calomiris and Carey (1994) suggest that the growth of foreign banks' market share depended more on purchasing existing loans rather than originating new loans. Similarly, Kraus (1995) finds that, having established a presence in the United States, many foreign banks increased their market share by acquiring existing U.S. banks, rather than by originating new loans.

Although their wholesale orientation limited the scope of the benefits that foreign banks could provide, some borrowers were made better off. Goldberg (1992) notes that foreign banks that were new entrants were often accused of pricing their products (particularly commercial and industrial loans) below domestic competitors in order to obtain business. They were able to accept smaller profit margins than their domestic competitors because of lower capital requirements and a greater ability to use leverage.²⁵

The high cost of doing business in a foreign country means that foreign banks will often find themselves at a competitive disadvantage, which they need to overcome either

²⁴ Barth, Caprio, and Levine (2001 a,b) provide cross-country evidence that restricting the range of domestic banks' activities is negatively associated with bank performance and stability.

²⁵ Zimmer and McCauley (1991) conclude that foreign banks enjoyed cost of capital advantages over U.S.-owned banks. McCauley and Seth (1992) and Terrell (1993) find similar advantages for foreign banks concerning cost of funds.

through special expertise or services. In the U.S., a developed country with strong domestic banks, it is hard to do this and, therefore, it is not surprising that foreign banks competed largely on price and in the wholesale market. In such environments, the only niche expertise that many foreign banks can offer is their knowledge of and links to their home country.

The U.S. is not, however, a typical host country. Using an 80-country sample of both developed and developing countries, Claessens, Demirgüç-Kunt, and Huizinga (2000) estimate how foreign bank entry, measured as the change in the percentage of banks operating in a host country that are foreign-owned, affects the operations of domestic banks. They find that foreign banks reduce the profitability of domestic banks, and there is some evidence that the non-interest income and overall expenses of domestic banks are also negatively affected by foreign entry. The authors interpret the results to mean that foreign bank entry leads to greater efficiency in the domestic banking system.

In developing countries, local banks will likely find it harder to protect their profits. Using panel estimation techniques, Barajas, Steiner, and Salazar (2000) provide evidence on the competitive impact of foreign entry in Colombia. In regressions where foreign entry serves as the sole measure of financial sector liberalization, entry is associated with lower intermediation spreads, reduced non-financial costs, and improved loan quality (fewer non-performing loans relative to total loans). In simple OLS regressions, they find that new banks, whether domestic or foreign, were setting lower spreads than their established counterparts, presumably in an effort to gain market share.

In Colombia, foreign entry occurred concurrently with other structural and regulatory changes. When the authors include measures of domestic bank entry and a measure of non-entry-related financial liberalization, the impact of foreign entry changes slightly. Both domestic and foreign entry were associated with significant reductions in non-financial costs for all banks, and with significant increases in non-performing loans for existing domestic banks. They find, however, that foreign entry was associated with lower spreads among foreign banks, while domestic entry lowered spreads across all

banks. This last result suggests that foreign banks in Colombia did not compete against domestic ones in all sectors, but rather in a subset of areas.

Similarly, for the case of Argentina in the late 1990s, Clarke *et al.* (2000) find that although foreign banks competed beyond the wholesale market, they did not compete with domestic banks in all sectors equally. These results are consistent with the hypothesis that foreign banks enter specific areas where they have a comparative advantage putting pressure on the domestic banks already focusing on those types of lending. In particular, the authors find that domestic banks with loan portfolios concentrated in manufacturing, an area where foreign banks traditionally devoted a large part of their lending, tended to have lower net margins and lower profits than other domestic banks. On the other hand, banks primarily involved in consumer lending, an area where foreign banks have not been heavily involved had higher net interest margins and higher profits. For developing countries, this is an area in need of much additional empirical work. The initial indications are that foreign entry does exert competitive pressure on all domestic banks, but the pressures exerted are in specific lines of business, and those lines may vary from country to country.

III.B. Implications for Stability

By permitting foreign banks to enter, host countries open themselves up to the possibility that economic fluctuations in the home countries of their entrants might have an impact on foreign lending, and thus on their general level of economic activity. Peek and Rosengren (2000a) find that the collapse of the Japanese equity and real estate markets and the subsequent banking crisis in Japan had an impact on the fall in economic activity witnessed in the commercial real estate sector in the United States in the 1990s. Japanese bank subsidiaries in the U.S. responded to the problems in Japan by reducing lending in the U.S.. Given that Japanese banks had a very significant presence in some of the major commercial real estate markets in the U.S., this decline in lending had important real effects on construction activity.

Evidence that host countries can be affected by cyclical conditions in the home countries of foreign banks can also be found for the case of U.S. banks operating abroad.

Using bank-specific data on U.S. bank claims on individual foreign countries since the mid-1980s, Goldberg (2001) concludes that foreign claims are highly correlated with U.S. GDP growth, but not with foreign demand conditions.

On the other hand, when a host country's economy is stagnant or in crisis, foreign banks with internationally diversified asset portfolios may be a stabilizing influence. For example, Goldberg (2001) finds that U.S. banks did not retrench their lending significantly following periods of crises. Cross-country evidence in Demirgüç-Kunt, Levine, and Min (1998) and Levine (1999) indicates that, controlling for other factors that are likely to produce banking crises, foreign bank presence reduces their likelihood. Moreover, as described above, Barth *et al.* (2000) find that restrictions on foreign entry are associated with lower loan portfolio quality, on average, and greater sector fragility.

In summary, the cross-country evidence indicates that, on average, foreign entry has provided net benefits in terms of stability. In individual country cases, the outcome might depend on the roster of entrants. Too much exposure to banks from any single country may increase instability, especially if that country's economy is subject to fluctuations, and the entrants do not hold diversified portfolios of assets. For example, there is concern that Latin American banking sectors are too exposed to economic fluctuations in Spain. Since the mid-90s Banco Santander Central Hispano (BSCH) and Banco Bilbao Vizcaya Argentaria (BBVA) have spent about \$13 billion to purchase control of 30 major banks in Latin America. Those banks comprise \$US 126 billion in assets – almost 10 percent of the region's banking assets or 7.5 percent of regional GDP.²⁶

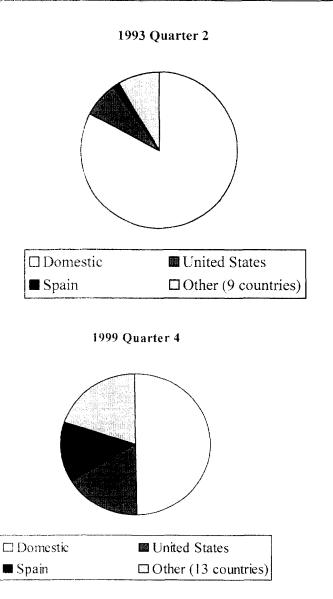
More research on the implications of this exposure is clearly needed. However, the evidence emerging from Argentina suggests that potential problems might not be too severe. While exposure to Spain has grown substantially, so too has Argentina's exposure to banks from other countries (Figure 2). In 1993, foreign-controlled banks from eleven countries held 18 percent of total banking sector assets; by 1999, banks from

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²⁶ IMF (2000).

fifteen countries held over 50 percent. U.S. banks had the largest presence with a 7 percent asset share in 1993 and a 16 percent share in 1999. While Spanish banks did hold a hefty 14 percent market share by 1999, the diversified pattern of foreign ownership should afford Argentina some protection, provided, of course, that economic fluctuations across home countries are not too highly correlated.

Figure 2: Bank Ownership in Argentina



.Source: authors' calculations based on data from the Central Bank of Argentina

In fact, there is some evidence that this diversified roster of entrants was a stabilizing force in Argentina in the 1990s. Dages, Goldberg, and Kinney (2000) provide evidence that foreign banks had higher loan growth rates than domestic private or state-owned banks throughout the period, and that foreign bank credit grew during crisis periods. However, crises during this period did not emanate from the developed home countries of the foreign entrants, but rather from other developing countries. It is encouraging that foreign banks did not suddenly withdraw from these markets, but, had the crisis emanated from Spain, for example, the average response might have been different. Moreover, given the extensive Spanish presence throughout the region, economic problems in one Latin American country may increasingly be transmitted to others through these banks. For developing countries, empirical work similar to Peek and Rosengren (2000a) and Goldberg (2001) on the role of foreign banks around the world as transmission mechanisms for shocks is clearly warranted.

III.C. Type of Lending (SMEs)

In general, foreign banks appear to allocate greater shares of their lending portfolios to commercial and industrial loans, providing indirect evidence that foreign banks may be more important in the market for loans to large companies. Goldberg (1992) notes that foreign banks operating in the U.S. held 28.5% of all commercial and industrial loans, but only 22.6 % of all banking assets.²⁷ In a survey of 271 foreign banks operating in the U.S., Cho, Krishnan, and Nigh (1987) find that 56% pointed to trade finance as a major area of specialization; 44% mentioned corporate banking; and 31% listed foreign exchange trading, all services that are likely to benefit disproportionately large businesses. Similarly, for Argentina, Clarke *et al.* (2000) find that, in the late 1990s, foreign banks devoted about 35% of their loan portfolios to manufacturing, while private domestic banks devoted less than 20% to that sector, and public domestic banks devoted only 10%.

²⁷ As reported in the *American Banker*, February 27, 1990, p. 18A.

In interpreting portfolio comparisons, Peek, Rosengren, and Kasirye (1999) caution that foreign banks tend to buy domestic banks that already have perfermance problems and so may be reducing credit for other reasons. This retrenching may have some short-term impact on lending decisions, especially with respect to small businesses, but it is unlikely to explain fully the large, persistent disparities in portfolio orientation between foreign banks and domestic banks. Those disparities appear to be as pronounced in developing countries as they are in developed ones.

As indicated by Focarelli and Pozzolo (2000), most banks with an international presence tend to be large. Large banks may be impeded by organizational diseconomies in providing relationship lending services to small businesses at the same time that they are providing transactions lending services and wholesale capital market services to their large clients.²⁸ To the extent that they lend to small borrowers, large banks are likely to employ standardized methods for assessing creditworthiness based on readily available information. For smaller banks, it may pay to grant loan officers greater latitude to use idiosyncratic borrower information, most of which is not easily quantified of transferable, in assessing creditworthiness.²⁹ This flexibility makes it easier to create and maintain a relationship between small banks and small borrowers.

There is substantial evidence from the United States that indicates that large, though not necessarily foreign, banks lend less of their portfolios to small businesses than do smaller banks (Berger, Kashyap, and Scalise (1995); Keeton (1995); Levonian and Soller (1995); Berger and Udell (1996); Peek and Rosengren (1996); Strahan and Weston (1996)). Nine percent of the assets of small U.S. banks (those with assets below \$100 million) are devoted to domestic commercial and industrial loans to borrowers with bank

²⁸ Berger, Klapper, and Udell (2000).

²⁹ Cole, Goldberg, and White (1999) find that large banks are more likely to base their small business loan approvals on financial ratios, whereas small banks are more likely to base their decisions on the existence of a prior relationship with the borrower.

³⁰ Strahan and Weston (1996) find that there is a non-linear relationship between small business lending and bank size. As banks grow, small business lending increases rapidly at first, leading to an increase in the ratio of small business loans to assets. However, as banks get larger and they are able to lend to large businesses, this type of lending takes off and the share (but not the level) of lending to SMEs drops.

credit less than \$1 million. For large banks (those with assets over \$5 billion), that figure is only three percent.³¹

A key policy concern is that, if foreign competition forces some small domestic banks to exit the market, the supply of credit to informationally opaque small businesses will decline. Direct evidence on small business lending in Latin America is somewhat mixed. Berger, Klapper, and Udell (2000) find that small businesses in Argentina are less likely than larger ones to receive any credit from large banks or from foreign banks.³² Also analyzing the case of Argentina, Escudé *et al.* (2001) find that while foreign banks allocated a smaller share of their lending portfolio to SMEs relative to domestic banks, they granted almost half of the total credit to this sector in the year 2000. They argue that this is evidence that foreign banks do not discriminate against SMEs.

Clarke, Cull, Martinez Peria, and Sanchez (2001) find that foreign banks in Argentina, Chile, Colombia, and Peru generally lent a smaller fraction of their funds to SMEs than similar domestic banks in the late 1990s. However, they find that other factors might have mitigated this. First, they find that differences between foreign and domestic banks were far less pronounced for large banks than they were for small banks in all four countries. In fact, in two of the four countries, Chile and Colombia, their econometric analysis suggests that large foreign banks might actually have lent relatively more to SMEs than large domestic banks after controlling for other factors that affect lending to SMEs. Further, they find that the growth rate of real lending to SMEs was higher for foreign banks than for domestic banks in Peru, and was also higher for large foreign banks than large domestic banks in Argentina and Chile.

³¹ Figures are from the June Reports of Income and Condition, 1996, as reported in Strahan and Weston (1998). Loans to small business are commercial and industrial loans with original amount under \$1 million.

³² Due to data limitations, they measure size of borrowing firms based on their total debt within the system rather than on assets. They also run separate Logit models for the probability of receiving a loan from a large bank and the probability of receiving a loan from a foreign bank. This makes it harder to assess whether it is bank size or foreign ownership that limits access for small borrowers. Controlling for bank size, foreignness may not be that important a determinant of access.

The evidence regarding increased lending to SMEs by large foreign banks found in Clarke, Cull, Martinez Peria, and Sanchez (2001) might be explained by recent changes in technology. Mester (1997) argues that advances in credit scoring methodologies coupled with enhanced computer power and increased data availability might change the nature of small business lending. These factors could make it less necessary for a bank to have a physical presence in all geographic areas in which it lends (Petersen and Rajan, 2000) and could help large foreign banks to overcome some of the diseconomies and difficulties in lending to small borrowers.

However, even if foreign banks continue to primarily focus on serving large customers, foreign entry might still benefit small borrowers. First, competition for large customers could displace some domestic banks, forcing them to seek new market niches such as providing credit to SMEs. Consistent with this, Bonin and Abel (2000) find that as foreign penetration increased in Hungary some smaller domestic banks sought new market areas. Similarly, in a survey of banks from 78 countries, Jenkins (2000) finds that, 44 percent of those banks that lent to small and micro enterprises indicated that changed market conditions and increased competition in lending to large and medium-sized enterprises were the two most important reasons for doing so.³³

As illustrated in the discussion above, studies that have focused on foreign versus domestic individual bank behavior (using primarily individual bank balance sheet data) have not provided a definitive answer on the net effect of foreign entry on access to credit for small and medium-sized enterprises. Isolating the effect of foreign entry on domestic banks' lending from macroeconomic changes can be difficult in country case studies, especially since relatively few commercial banks operate in many developing countries.³⁴

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³³ Given the available data, which did not include detailed information on cross-regional differences in lending, Clarke, Cull, Martinez Peria, and Sanchez (2001) could not test for competitive displacement effects in the four Latin American countries included in their study.

³⁴ This is true even in many middle-income countries. For example, in the late 1990s, there were only 28 commercial banks in Colombia, 19 commercial banks in Peru, 28 commercial banks in Chile, and 91 commercial banks in Argentina (Clarke, Cull, Martinez Peria, and Sanchez, 2001).

However, comparable cross-country data on lending to SMEs is not easily available, especially since small local banks tend to be important in this area of lending.³⁵

Rather than relying upon information from bank balance sheets, Clarke, Cull, and Martinez Peria (2001) use a survey of over 4,000 enterprises in 38 developing and transition economies, to study whether borrowers' perceptions regarding interest rates and access to long-term credit are positively associated with the presence of foreign banks. If the potential advantages of foreign entry – improved sector efficiency, a subset of domestic banks forced by competitive pressures into new market niches, and new credit scoring technologies - outweigh the general tendency of large foreign banks to eschew SME lending, borrowers should rate access to credit (both quantities and terms) as easier in countries with relatively high levels of foreign bank penetration. Overall, their empirical results strongly support the assertion that foreign bank penetration improves firms' access to credit. Enterprises in countries with high levels of foreign bank penetration tended to rate interest rates and access to long-term loans as lesser constraints on enterprise operations and growth than enterprises in countries with less foreign penetration. Further, the benefits of high levels of foreign bank penetration do not appear to accrue only to large enterprises. Although some evidence suggests that entry by foreign banks benefits large enterprises more than small enterprises, there is strong evidence that even small enterprises gain in some ways and there is no evidence that they are harmed by foreign entry.

The recent evidence on the impact of foreign bank entry on lending to SMEs suggests that this process might not severely diminish access to credit by this type of borrower, as first suspected. However, the number of empirical studies on this subject is

³⁵ We are not aware of any sources that provide detailed data on total lending to SMEs that is comparable across countries. One reason why this is difficult is that regulators in different countries often have different reporting requirements and definitions for loans to SMEs. For example, in the four country case studies from Latin America in Clarke, Cull, Martinez Peria, and Sanchez (2001), two of the regulators collected data based upon loan size (Argentina and Peru), one required banks to keep separate records of loans to small businesses (Colombia), and one collected data based upon the total debt of the business (Chile).

still too small and covers only a limited number of countries and periods. Clearly, more research on this topic is needed.

IV. How Do Mode of Entry and Organizational Form Affect Foreign Bank Activity?

In some instances, host countries provide incentives for foreign banks to adopt specific modes of entry and specific organizational forms. For example, since the 1970s Egypt permitted foreign entry only through joint ventures with the state, although in recent years the government has begun divesting itself of those shares.³⁶ In other instances, governments limit the number of banking licenses thus making entry possible only by acquiring the license of an existing domestic bank, either through purchase or merger. In still other cases, as in Argentina, there do not appear to be strong incentives toward particular organizational forms or modes of entry, and yet not all foreign banks make the same choice.³⁷ This section of the paper discusses some potential implications of two modes of entry (*de novo* versus the acquisition of, or merger with, a domestic bank) and three organizational forms (as a branch, subsidiary, or representative agent of the parent bank). The section closes by discussing the impact of foreign bank penetration through cross-border lending.

IV.A. Merger and Acquisition

Berger, De Young, Genay, and Udell (2000) summarize several hundred papers on the causes and consequences of consolidation, and thus we need not duplicate that effort here. Most of that literature focuses again on developed countries, particularly the United States and the EU, and most examines mergers and acquisitions between dornestic banks. They note that the scale, scope, and product mix efficiencies literatures provide very little information on the effects of cross-border consolidation, which may differ

³⁶ Caprio and Cull (2000).

In Argentina both branches and subsidiaries are required to have their own capital and meet the Argentine capital requirements.

from the scale, scope, and mix effects within a single nation. Moreover, the within-country literature generally finds that scale and scope have small efficiency effects.

They also perform an empirical analysis of cross-border banking efficiency in France, Germany, Spain, the U.K., and the U.S. during the 1990s. They find that domestic banks in these countries have both higher cost efficiency and profit efficiency than foreign banks, although these differences are not always statistically significant. A priori, these findings can be interpreted as supporting the home field advantage of domestic banks. However, when they disaggregate their results by nation of origin, they find that domestic banks are more efficient than foreign banks from *most* foreign countries; are equally efficient with foreign banks from *some* countries; and are less efficient than foreign banks from *one* country, the U.S.

Because foreign banks are less efficient on average than domestic banks, the authors argue that efficiency considerations may limit the global consolidation of the financial services industry. However, they also note that if banks from some countries, particularly the U.S., are better able to operate across borders than others, they may capture disproportionate shares of the international financial services business in the future. What might this imply for developing countries? If weak domestic institutions are being purchased by, or merged with, efficient foreign entrants from developed countries, this should bring benefits to the host country. It remains an open question whether these are the types of mergers that will take place, but there appear to be a number of opportunities to improve banking efficiency in developing countries that are not available in many developed countries. Phrased another way, we might expect much of the future cross-border consolidation in financial services to occur in developing countries, precisely because their domestic banks are relatively inefficient.

Most of the research on scale economies in developed countries comes from the 1980s, and Berger, De Young, Genay, and Udell (2000) point out that more recent technological changes may have increased scale economies in producing financial services. They note that economies of scale may be greater for some new service delivery methods such as internet banking, phone centers, and ATMs (Radecki,

Wenninger, and Orlow, 1997). In addition, advances in payments technology appear to have created scale economies in back-office operations and network economies that can be more readily exploited by large banks (Bauer and Hancock (1993); Bauer and Hancock (1995); Bauer and Ferrier (1996); Hancock, Humphrey, and Wilcox (1999)).

In line with these predictions, using data from the 1990s, Berger and Mester (1997) find that there may be substantial scale economies, even for mergers between large banks, presumably due at least in part to technological progress. Foreign entry in developing countries is likely to coincide with broader consolidation within the host-country banking sector, and at least some of it will involve large banks. If the scale economies associated with that consolidation bring about more electronic banking, this could improve access to some types of financial services even for small customers. Moreover, Berger, De Young, Genay, and Udell (2000) note that the technologies that yield scale economies may increasingly be accessed at low cost by small institutions "through franchising or outsourcing to firms specializing in the technologies or through shared access to networks." ³⁸

With or without these technological improvements, one might still be concerned about the effect of foreign entry through mergers and acquisitions on the supply of credit to domestic businesses, especially small ones that rely heavily on bank credit for external finance.³⁹ As noted above, a number of empirical papers have demonstrated that, in the U.S., larger banks devote a lower proportion of their total credit to small firms than do small banks. The merger or takeover of small domestic banks in a developing country by larger foreign entrants, therefore, might imply a reduction in credit to small firms.

As with efficiency effects, the implications of cross-border consolidation for lending to small businesses will almost certainly depend on who merges with (or acquires) whom. Studies usually have found that mergers and acquisitions involving large banking organizations reduced small business lending substantially, although

³⁸ P 12

³⁹ For example, Cole *et al.* (1996) find that commercial banks are the most important source of credit to small U.S. firms using data from the National Survey of Small Business Finance.

mergers and acquisitions between small organizations were often found to increase small business lending (Keeton (1996), (1997); Peek and Rosengren (1996), (1998); Strahan and Weston (1996), (1998); Craig and Santos (1997); Kolari and Zardkoohi (1997 a, b); Zardkoohi and Kolari (1997); Walraven (1997); Berger *et al.* (1998); Avery and Samolyk (2000); Bonaccorsi, di Patti, and Gobbi (2000)).

The literature also indicates that consolidation may have a strong 'external effect'. Banks that are not in the process of consolidating may respond to a decline in some types of credit by larger, consolidating institutions by increasing their own supplies of credit. In particular, for the U.S., Berger, Saunders, Scalise, and Udell (1998) and Avery and Samolyk (2000) find that almost all the decline in lending to small businesses by the merger and acquisitions participants was offset by increased lending to this sector by other incumbent banks in the same local markets. Berger *et al.* (2001) note, however, that even if the external effect completely offsets the effects of consolidation in terms of the quantities of relationship credit supplied, some of the firms would likely have to undergo search and disruption costs, and have less favorable loan terms until their new relationships mature.

IV.B. De Novo

Although the evidence on this issue from developed countries is mixed, another part of the external effect of consolidation could be an increase in *de novo* entry, that is, new banks that form in markets where mergers and acquisitions occur (Seelig and Critchfield, 1999; Berger, Bonime, Goldberg, and White, 2000). Increased *de novo* entry could have benefits for small borrowers. For example, De Young, Goldberg, and White (1999) provide evidence from the U.S. that, after controlling for various factors including bank size, a bank's age has a negative effect on its small business lending. Similarly, Goldberg and White (1998) also find that bank age is inversely related to small business lending. In short, *de novo* banks in the U.S. tend to provide a higher share of loans to small businesses than do similarly sized incumbent banks (US\$5-100 million in assets). Using a sample of banks representing seventy-eight countries, Jenkins (2000) also finds

that newly established banks, on average, devote a larger share of their loan portfolio to small and micro firms than older banks.

De novo entrants are unlikely to meet a large share of a host country's credit needs in the near term. They tend to have difficulty attracting deposits and finding profitable lending opportunities. For example, Houpt (1980) finds that de novo foreign entrants in the U.S. were less profitable than U.S. banks acquired by foreign banks, in part because they depended more on relatively expensive purchased funds. Perhaps it is these difficulties that lead de novo banks to focus on lending to small businesses.

IV.C. Branches or Subsidiaries?

There are a number of organizational forms that foreign banks can adopt when entering a host country. Goldberg (1992) notes that the most limited, but the easiest to establish of the organizational forms, is the representative office. These offices neither take deposits nor make loans. Typically, they act as agents for the foreign bank and forward payments to the home office. In general, representative offices are established to test the possibility of further involvement in a host country.

Agencies represent a more expansive form of entry. They may make commercial and industrial loans, but they cannot make consumer loans. Also, they cannot accept deposits, at least in the U.S. They are allowed to maintain credit balances that are similar to deposits, however, payments are rarely made from these accounts. In the U.S. their funding is from the parent bank or by borrowing in the Federal Funds or interbank markets. Because neither the agency nor the representative office represent full immersion in a host country, most of the potential benefits (and risks) of foreign entry for developing countries will likely derive from two other organizational forms – the branch and the subsidiary.

In the U.S., branches represent the most important organizational form, comprising 63.8 percent of total foreign banking assets in 1989 (Goldberg, 1992). A branch is an integral part of a parent bank, meaning it can draw upon the parent's capital base, and can offer a wider range of services than agencies or representative offices.

However, in the U.S., branches have been engaged mostly in wholesale operations.⁴⁰ By contrast, subsidiaries are permitted to engage in a broader range of financial services than branches, and in many countries, they have identical powers as domestic banks and thus are regulated in the same manner. As wholly owned subsidiary companies of parent banks, they must lend based on their own capitalization. Unlike branches, many subsidiaries operating in the U.S. are oriented toward retail business.

The general thinking is that, by putting foreign banks on more equal footing with domestic ones, subsidiaries enable banks to better draw upon their financial services comparative advantages. Despite these potential advantages, DeYoung and Nolle (1996) find that, like other types of foreign banks, subsidiaries operating in the United States are significantly less profit-efficient than U.S. banks. Again, however, these results are not likely to be applicable to developing countries and, in comparison with cross-border lending in Latin America, which we describe in the next section, subsidiaries do appear to offer advantages.

Miller and Parkhe (1998) provide cross-country evidence on the overseas activities of U.S. banks that indicates that host countries can influence the organizational form that an entrant chooses. They find, for example, that in countries that permit universal banking, the percentage of subsidiaries is higher than in other countries, presumably because branches cannot take advantage of all the profit opportunities available. They also find that high host country tax rates and explicit barriers to the creation of subsidiaries reduce the percentage of subsidiaries. Furthermore, they find a positive relation between non-financial U.S. FDI in a host country and the percentage of subsidiaries. They argue that, as FDI increases, subsidiaries increasingly become the preferred organizational forms because, unlike branches, they provide the broad array of

⁴⁰ Goldberg (1992); Miller and Parkhe (1998).

⁴¹ The description of subsidiaries is also drawn from Goldberg (1992) and Miller and Parkhe (1998).

⁴² Their measure of entry barriers is based on three questions: (1) Are there geographic restrictions for subsidiaries of foreign banks? (2) Are there restrictions as to the number of offices or activities of foreign subsidiaries, and (3) Are foreign subsidiaries prohibited? If the answer to any of these questions was yes, the dummy variable for barriers equaled one; otherwise, it equaled zero. They answered these three questions based on information provided by Price Waterhouse, The Economist's *Foreign Finance Operations*, and Barth, Nolle, and Rice (1996).

financial services demanded by larger non-financial firms. This last result could be seen as supportive of the hypothesis that foreign banks follow their customers abroad. However, the result does not hold for the sub-sample of developing countries, another indication, perhaps, that foreign banks are relatively more interested in local market opportunities in those countries.

IV.D. Cross-border lending

Most of the recent studies of foreign bank entry in developing countries have concentrated on the lending activities of foreign banks operating within a host country's borders (Clarke, Cull, D'Amato and Molinari (2000); Claessens, Demirgüç-Kunt, and Huizinga (2000); Dages, Goldberg, and Kinney (2000); Focarelli and Pozzolo (2000)). According to Peek and Rosengren (2000b), these papers exclude a potentially important source of credit from banks that are operating outside the host country. They find that until the end of 1997 the volume of cross-border lending provided to Argentina, Brazil, and Mexico by foreign banking organizations exceeded the credit provided by the foreign bank subsidiaries established in those countries.⁴³

In the late 1990s, they note a major shift in the composition of foreign bank lending, as foreign banks have increased their claims through existing and newly acquired onshore banking subsidiaries rather than through cross-border loans. Moreover, the evidence from Brazil, Mexico, and Argentina does not indicate reluctance on the part of foreign bank subsidiaries to expand operations when the host country is suffering from a crisis. Indeed, they find that foreign bank penetration rose after crises, primarily reflecting acquisitions by foreign banks and the internal growth of lending by existing foreign subsidiaries. In comparison, they find that cross-border lending was more sensitive to economic instability in the host country, typically declining after a crisis. In

⁴³ Their measure of cross-border or offshore lending includes all cross-border claims that are not attributable to foreign subsidiaries of banks located in BIS-reporting countries. Therefore, all credit provided by branches located in these host countries was counted as offshore lending. Not all of the studies that Peek and Rosengren list as neglecting offshore lending ignored credit from branches. Clarke *et al.* (2000) and Dages, Goldberg, and Kinney (2000), both case studies of Argentina, included credit from branches. Those studies did, however, neglect other types of offshore lending.

short, the early indications are that foreign subsidiaries offer greater potential benefits for developing countries than other organizational forms, but this too is an area worthy of additional research. Moreover, cross-border lending should not be ignored by researchers, especially as a potential source of instability.

V. Conclusions

The past ten years have witnessed a great influx of foreign banks into several developing countries, and that trend is likely to continue. What benefits is foreign entry likely to bring, and what risks does it pose? Because most of the literature on this topic relates to developed countries, it is difficult to fully answer these questions. Initial indications are that many of the developed-country results do not carry over. For example, most studies of developed countries have found that domestic banks are more efficient than foreign competitors and some researchers have suggested that this might limit the scope of future cross-border consolidation. However, the evidence suggests that foreign banks typically outperform domestic ones in developing countries. There would, therefore, seem to be scope for efficiency-enhancing restructuring through outright sales of domestic banks to foreign investors or through cross-border consolidation.

Some might argue that the efficiency benefits for developing countries are self-evident, but that foreign entry poses risks in terms of the scope of service provision and overall sector stability. However, what evidence there is suggests that foreign banks do more than merely follow their domestic clients abroad. They appear to be genuinely interested in pursuing local lending opportunities, even more so than they have shown in developed countries. They may not enter all sectors forcefully, at least initially, but the available evidence suggests that their entry will be broad enough to exert competitive pressure on domestic banks, which should have benefits for consumers. In the short run, this competition could cause some domestic banks to fail, which could be destabilizing.

Foreign banks could pose another source of instability to developing countries if they reduce their exposures to those countries during times of crisis. However, the available evidence from Latin America indicates that foreign banks were much more likely to extend credit than domestic banks during recent crisis periods. There also remain concerns about exposing developing countries to the economic fluctuations of the home countries of foreign banks, or the fluctuations of other developing countries where these banks operate. These contagion effects have not yet been well researched, but it seems likely that having foreign entrants from a diversified group of countries could minimize these risks.

The incipient empirical evidence on the impact of foreign entry on access to credit by small businesses suggests that while foreign banks tend to be large, and large banks devote smaller shares of their portfolios to small businesses than other banks, there are some signs that technological changes are enabling large foreign banks to serve this sector. Undoubtedly, this is an area that requires further research.

As to how the mode of foreign bank entry affects hosts countries, recent studies appear to indicate that subsidiaries allow foreign banks to provide a wider range of activities and bring greater stability in lending to host countries. However, the empirical evidence on this matter is very limited and further research is warranted to assist host countries in deciding which mode of entry they should promote.

References

- Avery, R. B. and K. A. Samolyk, 2000, "Bank Consolidation and the Provision of Banking Services: The Case of Small Commercial Loans," Federal Deposit Insurance Corporation working paper.
- Ball, C. A. and A. E. Tschoegl, 1982, "The Decision to Establish a Foreign Branch or Subsidiary: An Application of Binary Classification Procedures," *Journal of Financial and Quantitative Analysis*, 17(3), 411-24.
- Barajas, A., R. Steiner, and N. Salazar, 2000, "Foreign Investment in Colombia's Financial Sector," in Claessens, S. and Marion Jansen, (eds.) The Internationalization of Financial Services: Issues and Lessons for Developing Countries, Boston, Mass.: Kluwer Academic Press.
- Barth, J., G. Caprio, and R. Levine, 2001a, "Banking Systems Around the Globe: Do Regulation and Ownership Affect Performance and Stability?" Forthcoming in Mishkin, Frederic (ed.), *Prudential Regulation and Supervision: What Works and What Doesn't*, National Bureau of Economic Research.
- Barth, J. R., G. Caprio, and R. Levine, 2001b, "Bank Regulation and Supervision: What Works Best?" World Bank, mimeo.
- Bauer, P. W. and G. D. Ferrier, 1996, "Efficiency Measurement Issues for Payments Processing," *Journal of Money, Credit, and Banking*, 28(4): 1004-1039.
- Bauer, P. W. and D. Hancock, 1993, "The Efficiency of the Federal Reserve in Providing Check Processing Services," *Journal of Banking and Finance*, 17(3): 287-311.
- Bauer, P. W. and D. Hancock, 1995, "Scale Economies and Technical Change in the Federal Reserve Automated Clearinghouse Payment Process," *Federal Reserve Bank of Cleveland Economic Review*, 33: 14-29.
- Berger, A. N., S. D. Bonime, L.G. Goldberg, and L. J. White, 1999, "The Dynamics of Market Entry: The Effects of Mergers and Entry on Entry in the Banking Industry," Board of Governors of the Federal Reserve System, working paper 1999-41.
- Berger, A. N., R. DeYoung, H. Genay, and G. F. Udell, 2000, "Globalization of Financial Institutions: Evidence from Cross-Border Banking Performance," *Brookings Papers on Economic Activity*, 2: 23-158.
- Berger, A. N., L. G. Goldberg, and L. J. White, 2001, "The Effects of Dynamic Changes in Bank Competition on the Supply of Small Business Credit," Board of Governors of the Federal Reserve System, working paper.
- Berger, A. N., A. K. Kashyap, and J. M. Scalise, 1995, "The Transformation of the U.S. Banking Industry: What a Long Strange Trip It's Been," *Brookings Papers on Economic Activity*, 2: 55-218.
- Berger, A. N., L. F. Klapper, and G. F. Udell, 2000, "The Ability of Banks to Lend to Informationally Opaque Small Businesses." Mimeo.

- Berger, A. N. and L. J. Mester, 1997, "Inside the Black Box: What Explains differences in the Efficiencies of Financial Institutions?" *Journal of Banking and Finance*, 21(7), 895-947.
- Berger, A. N., A. Saunders, J. M. Scalise, and G. F. Udell, 1998, "The Effects of Bank Mergers and Acquisitions on Small Business Lending," *Journal of Financial Economics*, 50(2), 187-229.
- Berger, A. N. and G. F. Udell, 1995, "Relationship Lending and Lines of Credit in Small Firm finance," *Journal of Business*, 68: 351-382.
- Berger, A. N. and G. F. Udell, 1996, "Universal Banking and the Future of Small Business Lending," in Anthony Saunders and Ingo Walter (eds.), *Financial System design: The Case for Universal Banking*, Burr Ridge, IL: Irwin Publishing, 559-627.
- Bhattacharya, A., C. A. Knox Lovell, and P. Sahay, 1997, "The Impact of Liberalization on the Productive Efficiency of Indian Commercial Banks," *European Journal of Operational Research*, 98: 332-345.
- Bonaccorsi di Patti, E. and G. Gobbi, 2000, "The Effects of Bank Consolidation on Small Business Lending: Evidence from Market and Firm Data," Bank of Italy working paper.
- Bonin, J. and I. Abel, 2000, "Retail Banking in Hungary: A Foreign Affair?" Wesleyan University, Processed. Prepared as background paper for, World Bank, World Development Report 2002: Institutions for Markets.
- Brealey, R. A. and E. C. Kaplanis, 1996, "The Determination of Foreign Banking Location," *Journal of International Money and Finance*, 15, 577-97.
- Buch, C. M. and S. Lapp, 1998, "The Euro No Big Bang for European Financial Markets," *Konjunkturpolitik*, 47: 11-78.
- Buch, C. M., 2000, "Why Do Banks Go Abroad Evidence from German Data," Financial Markets, Institutions and Instruments, 9(1), 33-67.
- Budzeika, G., 1991, "Determinants of the Growth of Foreign Banking Activities in the United States," Federal Reserve Bank of New York, Research Paper 9112.
- Calderón, A., and R. Castilla, 1999, "Grupos financieros españoles en América Latina: una estrategia audaz en un difícil y cambiante entorno europeo", Serie Desarrollo Productivo, Documento de Trabajo de Cepal #59.
- Calomiris, C. and M. Carey, 1994, "Loan Market Competition Between Foreign and U.S. Banks: Some Facts About Loans and Borrowers." Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, 331-351.
- Caprio, G. and R. Cull, 2000, Bank Privatization and Regulation for Egypt, Egyptian Center for Economic Studies.
- Chang, C. E., I. Hasan, and W. C. Hunter, 1998, "Efficiency of Multinational Banks: An Empirical Investigation," *Applied Financial Economics*, 8(6): 1-8.

- Cho, K. R., S. Krishnan, and D. Nigh, 1987, "The State of Foreign Banking Presence in the United States," *International Journal of Bank Marketing*, 5(2): 59-75.
- Claessens, S. and M. Jansen (eds.), 2000, The Internationalization of Financial Services: Issues and Lessons for Developing Countries, Boston, Mass.: Kluwer Academic Press.
- Claessens, S., A. Demirgüç-Kunt, and H. Huizinga, 2000, "The Role of Foreign Banks in Domestic Banking Systems" in Claessens, S. and Marion Jansen, (eds.) *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*, Boston, Mass.: Kluwer Academic Press.
- Claessens, S., A. Demirgüç-Kunt, and H. Huizinga, Forthcoming, "How Does Foreign Entry Affect the Domestic Banking Market?" *Journal of Banking and Finance*.
- Clarke, G., R. Cull, L. D'Amato, and A. Molinari, 2000, "On the Kindness of Strangers? The Impact of Foreign Entry on Domestic Banks in Argentina," in Claessens, S. and Marion Jansen, (eds.) The Internationalization of Financial Services: Issues and Lessons for Developing Countries, Boston, Mass.: Kluwer Academic Press.
- Clarke, G., R. Cull, and M. S. Martinez Peria, 2001, "Does Foreign

 Bank Penetration Reduce Access to Credit in Developing Countries? Evidence
 From Asking Borrowers," Mimeo, World Bank, Washington D.C.
- Clarke, G., R. Cull, M. S. Martinez Peria, and S. M. Sánchez, 2001, "Bank Lending to Small Businesses in Latin America: Does Bank Origin Matter?" Mimeo, World Bank, Washington DC.
- Cole, R. A., J. D. Wolken, and L. R. Woodburn, 1996, "Bank and Nonbank Competition for Small Bank Credit: Evidence from the 1987 and 1993 National Surveys of Small Business Finances," *Federal Reserve Bulletin*, 82(11): 983-95.
- Craig, B. and J. Cabral dos Santos, 1997, "The Risk Effects of Bank Acquisitions," Federal Reserve Bank of Cleveland Economic Review, 33(2): 25-35.
- Dages, G., L. B. Goldberg, and D. Kinney, 2000, Federal Reserve Bank of New York Economic Policy Review, September.
- Damanpour, F., 1990, The Evolution of Foreign Banking in the United States, New York: Quorum Books.
- Daniels, P. W., 1986, "Foreign Banks and Metropolitan Development: A Comparison of London and New York," *Tidjschrift voor Economishe en Sociale Geographie*, 77, 269-287.
- Demirgüç-Kunt, A. and H. Huizinga, 2000, "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence," *World Bank Economic Review*, 13(2): 379-408.
- Demirgüç-Kunt, A., R. Levine, and H. G. Min, 1999, "Opening to Foreign Banks: Issues of Stability, Efficiency and Growth." In *Proceedings of the Bank of Korea Conference on the Implications of Globalization of World Financial Markets*, December 1998.

- Denizer, C., 2000. "Foreign Entry in Turkey's Banking Sector, 1980-1997," in Claessens, S. and Marion Jansen, (eds.) *The Internationalization of Financial Services:*Issues and Lessons for Developing Countries, Boston, Mass.: Kluwer Academic Press.
- DeYoung, R., L. G. Goldberg, and L. J. White, 1999, "Youth, Adolescence, and Maturity of Banks: Credit availability to Small Business in an Era of Banking Consolidation," *Journal of Banking and Finance*, 23: 463-492.
- DeYoung, R. and D. E. Nolle, "Foreign-owned banks in the United States: Earning Market Share of Buying it?" *Journal of Money, Credit, and Banking*, 28(4), (Part 1, Nov. 1996), 622-36.
- Escude G., T. Burdisso, M. Catena, L. D'Amato, G. Mc Candless, and T. Murphy, 2001, "Las MIPyMES y el Mercado de Crédito en la Argentina," Documento de Trabajo Nro. 15, Banco Central de la República Argentina,
- Fisher, A. and P. Molyneux, 1996, "A Note on the Determinants of Foreign Bank Activity in London between 1980 and 1989," *Applied Financial Economics*, 6(3): 271-77.
- Focarelli, D. and A. Pozzolo, 2000, "The Determinants of Cross-Border Shareholding: An Analysis with Bank-Level Data from OECD Countries." Paper presented at the Federal Reserve Bank of Chicago Bank Structure Conference, May.
- Frankel, A. B. and P. B. Morgan, 1992, "Deregulation and Competition in Japanese Banking." *Board of Governors of the Federal Reserve System, Federal Reserve Bulletin*, 78 (18), 579-93.
- Goldberg, L. G., 1992, "The Competitive Impact of Foreign Commercial Banks in the United States," in R. Alton Gilbert, ed., The Changing Market in Financial Services, Proceedings of the Fifteenth Annual Economic Policy Conference of the Federal Reserve Bank of St. Louis, Norwell, Mass and Dordrecht: Kluwer Academic. 161-200.
- Goldberg, L. G. and R. Grosse, 1994, "Location Choice of Foreign Banks in the United States." *Journal of Economics and Business*, 46(5):3 67-79.
- Goldberg, L. G. and D. Johnson, 1990, "The Determinants of U.S. Banking Activity Abroad," *Journal of International Money and Finance*, 9(2): 123-37.
- Goldberg, L. G. and A. Saunders, 1980, "The Causes of U.S. Bank Expansion Overseas:

 The Case of Great Britain," *Journal of Money, Credit, and Banking*, v12, n4: 630-43.
- Goldberg, L. G. and A. Saunders, 1981a, "The Determinants of Foreign Banking Activity in the United States," *Journal of Banking and Finance*, 5, 17-32.
- Goldberg, L. G. and A. Saunders, 1981b, "The Growth of Organizational Forms of Foreign Banks in the U.S.: A Note," *Journal of Money, Credit, and Banking*, 13(3), 365-374.

- Goldberg, L. G., and L. J. White, 1998, "De Novo Banks and Lending to Small Businesses: An Empirical Analysis," *Journal of Banking and Finance*, 22 (6-8): 851-67.
- Goldberg, L. B., 2001, "When is U.S. Bank Lending to Emerging Markets Volatile?," Federal Reserve Bank of New York, Mimeo.
- Grosse, R. and L. G. Goldberg, 1991, "Foreign Bank Activity in the United States: An Analysis by Country of Origin," *Journal of Banking and Finance*, 15(6), 1092-1112.
- Hancock, D., D. B. Humphrey, and J. A. Wilcox, 1999, "Cost Reductions in Electronic Payments: The Roles of Consolidation, Economies of Scale, and Technical Change," *Journal of Banking and Finance* 23(2-4): 391-421.
- Hasan, I. and W. C. Hunter, 1996, "Efficiency of Japanese Multinational Banks in the United States," in Andrew H. Chen, ed., *Research in Finance*, Volume 14, Greenwich, CT and London: JAI Press. 157-173.
- Hasan, I. and A. Lozano-Vivas, 1998, "Foreign Banks, Production Technology, and Efficiency: Spanish Experience." Working Paper presented at Georgia Productivity Workshop III. Athens, Georgia.
- Hawawini, G. A., and I. Swary, 1990, Mergers and Acquisitions in the US Banking Industry: Evidence from the Capital Markets, Amsterdam: North-Holland.
- Hao, J., W. C. Hunter, and W. K. Yang, "Deregulation and Efficiency: The Case of Private Korean Banks," In Harvey Rosenblum, editor, *Bank Privatization:*Conference Proceedings of a Policy Research Workshop. Dallas, TX: Federal Reserve Bank of Dallas.
- Honohan, P., 2000, "Consequences for Greece and Portugal of the Opening-Up of the European Banking Market," in Claessens, S. and Marion Jansen, (eds.) The Internationalization of Financial Services: Issues and Lessons for Developing Countries, Boston, Mass.: Kluwer Academic Press.
- Houpt, J. V., 1980, "Foreign Ownership and the Performance of U.S. Banks." Staff Study 109. Board of Governors of the Federal Reserve System. Washington, D.C. (July).
- Hultman, C. W., and R. McGee, 1989, "Factors Affecting the Foreign Banking Presence in the United States," *Journal of Banking and Finance*, 13(3), 383-96.
- International Monetary Fund, Staff Team led by Donald J. Mathieson and Garry J. Schinasi, 2000, International Capital Markets: Developments, Prospects, and Key Policy Issues, Washington DC: IMF Publication Services.
- Jenkins, H. 2000, "Commercial Bank Behavior in Micro and Small Enterprise Finance." Development Discussion Paper No. 741. Harvard Institute for International Development, Harvard University.
- Keeton, W. R. 1995, "Multi-Office Bank Lending to Small Businesses: Some New Evidence," Federal Reserve Bank of Kansas City Economic Review, 80(2): 45-57.

- Keeton, W. R. 1996, "Do Bank Mergers Reduce Lending to Businesses and Farmers? New Evidence from Tenth District States," Federal Reserve Bank of Kansas City Economic Review, 81(3): 63-75.
- Kiraly, J., B. Majer, L. Matyas, B. Ocsi, A. Sugar and E. Varhegyi, 2000, "Experience with Internationalization of Financial Service Providers Case Study: Hungary," in Claessens, S. and Marion Jansen, (eds.) The *Internationalization of Financial Services: Issues and Lessons for Developing Countries*, Boston, Mass.: Kluwer Academic Press.
- Kolari, J. and A. Zardkoohi, 1997a, "The Impact of Structural Change in the Banking Industry on Small Business Lending," Report to the United States Small Business Administration.
- Kolari, J. and A. Zardkoohi, 1997b, "Bank Acquisitions and Small Business Lending," Texas A&M University, Mimeo.
- Kraus, J. R., 1995, "Foreign Banks' Big Market Share Hides Weak Profits," *American Banker*, February 28.
- Kroszner, R. S. and P. E. Strahan, 1999, "What Drives Deregulation? Economics and Politics of the Relaxation of Bank Branching Restrictions." *Quarterly Journal of Economics* 114 (4), 1437-1467.
- Levine, R., 1999, "Foreign Bank Entry and Capital Control Liberalization: Effects on Growth and Stability," University of Minnesota, mimeo.
- Levine, R. and S. Zervos, 1998, "Stock Markets, Banks, and Economic Growth," *American Economic Review*, 88(3), 537-558.
- Levonian, M. and J. Soller, 1995, "Small Banks, Small Loans, Small Business," Federal Reserve Bank of San Francisco, Mimeo.
- Mahajan, A., N. Rangan, and A. Zardkoohi, 1996, "Cost Structures in Multinational and Domestic Banking," *Journal of Banking and Finance*, 20(2): 238-306.
- McCauley, R. N. and R. Seth, 1992, "Foreign Bank Credit to U.S. Corporations: The Implications of Offshore Loans," Federal Reserve Bank of New York, Quarterly Review (Spring), 52-65.
- Mester, L. J., 1997, "What's the Point of Credit Scoring?" Federal Reserve Bank of Philadelphia Business Review, Sept.-Oct.: 3-16.
- Miller, S. R. and A. Parkhe, 1998, "Patterns in the Expansion of U.S. Banks' Foreign Operations," *Journal of International Business Studies*, 29(2), 359-390.
- Miller, S. R. and A. Parkhe, 1999, "Home-Country Environment as a Source of International Competitiveness: An Analysis of the Global Banking Industry," Michigan State University, Mimeo.
- Moshirian, F. and A. Van der Laan, 1998, "Trade in Financial Services and the Determinants of Banks' Foreign Assets," *Journal of Multinational Financial Management*, 8(1): 23-38.

- Nigh, D., Kang R. C., and S. Krishnan, 1986, "The Role of Location-Related Factors in U.S. Banking Involvement Abroad: An Empirical Analysis," *Journal of International Business Studies* (Fall): 59-72.
- Parkhe, A. and S. R. Miller, 1999, "Is There a Liability of Foreignness in Global Banking? An Empirical Test of U.S. Banks' X-Efficiency," Michigan State University, Mimeo.
- Peek, J. and E. S. Rosengren, 1996, "Small Business Credit Availability: How Important is Size of Lender?" in Anthony Saunders and Ingo Walter, eds., *Financial System Design: The Case for Universal Banking*, Burr Ridge, IL: Irwin Publishing.
- Peek, J. and E. S. Rosengren, 1998, "Bank Consolidation and Small Business Lending: It's Not Just Bank Size That Matters," *Journal of Banking and Finance*, 22(6): 799-819.
- Peek, J. and E. S. Rosengren, 2000a, "Collateral Damage: Effects of the Japanese Bank Crisis on Real Activity in the United States," *American Economic Review*, 90(1), 30-45.
- Peek, J. and E. S. Rosengren, 2000b, "Implications of the Globalization of the Banking Sector: The Latin American Experience," Federal Reserve Bank of Boston, New England Economic Review, Sept.-Oct.: 45-62.
- Peek, J., E. S. Rosengren, and F. Kasirye, 1999, "The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created?" *Journal of Banking and Finance*, 23(2-4): 579-604.
- Petersen, M. A. and R. G. Rajan, 2000, "Does Distance Still Matter? The Information Revolution in Small Business Lending," mimeo.
- Radecki, L. J., J. Wenninger, and D. K. Orlow, 1997, "Industry Structure: Electronic Delivery's Potential Effects on Retail Banking," *Journal of Retail Banking Services*, 19(4): 57-63.
- Sagari, S. B., 1992, "United States Foreign Direct Investment in the Banking Industry," Transnational Corporations: 93-123.
- Seelig, S. A. and T. Critchfield, 1999, "Determinants of De Novo Entry in Banking," Federal Deposit Insurance Corporation Working Paper 99-1.
- Seth, R., D. E. Nolle, and S. K. Mohanty, 1998, "Do Banks Follow Their Customers Abroad?" Financial Markets, Institutions, and Instruments, 7(4), 1-25.
- Strahan, P. E. and J. P. Weston, 1996, "Small Business Lending and Bank Consolidation: Is There Cause for Concern?" Federal Reserve Bank of New York Current Issues in Economics and Finance, 2: 1-6.
- Strahan, P. and J. Weston, 1998, "Small Business Lending and the Changing Structure of the Banking Industry," *Journal of Banking and Finance* 22, 821-45.
- Terrell, H. S., 1993, "U.S. Branches and Agencies of Foreign Banks: A New Look." Board of Governors of the Federal Reserve System, Federal Reserve Bulletin, 79 (10), 913-25.

- Tschoegl, A. E., 1983, "Size, Growth, and Transnationality among the World's Largest Banks," *Journal of Business*, 187-201.
- Tschoegl, A. E., 1985, "Ideology and Changes in Regulations: The Case of Foreign Bank Branches Over the Period 1920-80," In Thomas L. Brewer, ed., *Political Risks in International Business*, New York: Praeger, 95-114.
- Tschoegl, A. E., 2000, "International Banking Centers, Geography, and Foreign Banks," *Financial Markets, Institutions and Instruments*, 9(1), 1-32.
- Ursacki, T. and I. Vertinsky, 1992, "Choice of Entry, Timing, and Scale by Foreign Banks in Japan and Korea," *Journal of Banking and Finance*, 16, 405-21.
- Vander Vennet, R., 1996, "The Effect of Mergers and Acquisitions on the Efficiency and Profitability of EC Credit Institutions," *Journal of Banking and Finance*, 20, 1531-1558.
- Walraven, N. A., 1997, "Small Business Lending by Banks Involved in Mergers," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 1997/25.
- Walraven, N. A., 1999, "Lending by Rural Banks Involved in Mergers," *Journal of Agricultural and Applied Economics*, 31(2): 201-14.
- Williams, B., 1996, "Determinants of the Performance of Japanese Financial Institutions in Australia, 1987-1992," *Applied Economics*, 28, 1153-65.
- Williams, B., 1998, "Factors Affecting the Performance of Foreign Owned Banks in Australia: A Cross Sectional Study," *Journal of Banking and Finance*, 22, 197-219.
- Yamori, N., 1998, "A Note on the Location choice of Multinational Banks: The Case of Japanese Financial Institutions," *Journal of Banking and Finance*, 22: 109-120.
- Zardkoohi, A. and J. Kolari, 1997, "The Effect of Structural Changes in the U.S. Banking Industry on Small Business Lending," Texas A&M University, Mimeo.
- Zimmer, S. A. and R. N. McCauley, 1991, "Bank Cost of Capital and International Competition." Federal Reserve Bank of New York, Quarterly Review (Winter), 33-59.

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