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## **FDI in Emerging Markets Banking Systems<sup>1</sup>**

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### **I. INTRODUCTION**

During the 1990s, one of the most striking structural changes in many emerging markets' financial systems has been the growing presence of foreign-owned financial institutions, especially in the banking system. As noted by Eichengreen and Mussa (1998), many emerging markets have been reducing barriers to trade in financial services since the early 1990s, but it was not until the second half of the 1990s that foreign financial institutions acquired a substantial presence across many emerging markets.

Measures of foreign participation and control in some key emerging market banking systems demonstrate the extent to which large inflows of FDI and portfolio investment have transformed the sector during the 1990s. The share of investment in the financial industry in the total inward FDI stock to Central and Eastern Europe reached 13.6 percent in 1999, the highest sectoral share in that region, while the comparable figure in Latin America was 12.3 percent (second only to business activities in the tertiary sector)<sup>2</sup>. High shares of FDI in the financial sector have resulted in significant changes in the ownership structure of the industry, and the proportion of total bank assets controlled by foreign-owned banks in Central Europe stands currently at around 70 percent, while in some major Latin American countries, more than half of total bank assets are controlled by foreign institutions.

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<sup>2</sup> In contrast, the share of financial sector FDI in Asia stood at 1.8 percent of total FDI, while the average for developing countries was 4.2 percent (see UNCTAD, *World Investment Report 2001*).

The sharp increase in FDI in emerging markets banking systems is a result of the globalization of the financial services industry, together with the removal of barriers to entry in several emerging markets. In response to deregulation and disintermediation processes, the financial services industry has diversified across geographic and product lines. Although there are strong incentives for foreign banks to expand abroad, they have until recently faced substantial barriers to entry in most emerging markets. However, the need to strengthen financial systems and reduce the costs associated with recapitalizing and restructuring banks in a post crisis period, led the authorities in a growing number of emerging markets to open their banking systems to foreign entry in an effort to improve banking system efficiency and to have banks that are part of organizations that hold globally diversified portfolios.

The increase in foreign participation has led to a series of studies focused on the effects of foreign bank entry in domestic financial systems. While the sharp rise in the level of foreign bank participation in many emerging markets is clear evidence that the authorities in these countries have concluded that foreign bank entry will have an overall positive effect on the banking system, the effects of foreign bank entry on the efficiency and stability of the local banking systems has been much debated in many countries. A general finding of the empirical studies that have included either mixed samples of mature and emerging markets (for instance, Claessens, Demirgüç-Kunt, and Huizinga, 1999) or have focused on emerging markets, is that foreign banks in emerging markets have been more efficient in terms of both costs and profits than domestic banks—whereas the opposite is true for mature markets. Moreover, significant foreign bank entry was associated with a reduction in both the profitability and overall expenses of domestic banks.

The evidence on the stability effects of foreign bank presence is more mixed but an increasing body of evidence points to the fact that banks with a long-term commitment to emerging markets tend to provide a stable influence. Evidence from the Japanese and Asian banking crises indicates that banks sometimes choose to shrink host country operations more than those at home when they have home country problems (Peek and Rosengren, 2000). However, recent case studies suggest that foreign banks in Argentina and Mexico have expanded operations even when facing host country problems (see Goldberg, Dages and Kinney, 2000). Also, Palmer (2000) notes that US money center banks generally sustained the operations of their offshore branches and subsidiaries during the recent emerging market crises.

This paper summarizes and updates results presented in Chapter V of IMF (2000) and Mathieson and Roldos (2001). The following issues related to the increased role of foreign banks are highlighted. First, measures of foreign participation and foreign control derived from banks' balance sheets mirror the important increase in financial sector FDI during the second half of the 1990's. Second, an empirical analysis of the determinants of foreign bank entry shows that an index of banking crises (based on the work of Kaminsky and Reinhart, 1999 and Caprio and Klingebiel, 1999) contributes to explain to a large extent the increased foreign bank presence in emerging markets. A third section of the paper reviews both the theoretical arguments and the available empirical evidence about the effects of foreign bank entry on both the efficiency and stability of the domestic banking system. Particular attention is given to examining how the lending and deposit-taking activities of domestic and foreign banks respond to large domestic and external shocks and the degree to which foreign banks have been supported by parents during a crisis or when they get into difficulty. The final section addresses some of the policy issues raised by an increased presence of foreign banks in the domestic banking system, including the need to develop effective cross-border prudential supervisory and regulatory policies for large complex banking organizations and the new instruments and derivative products they introduce, the degree of parental support that is likely to be offered to local establishments during periods of difficulty, the banking concentration issues that can arise, and the effects of foreign bank entry on the level of systemic risk in the banking system.

## **II. INCREASE IN FOREIGN BANK ENTRY TO EMERGING MARKETS**

The extent of foreign ownership in emerging markets banking systems has increased dramatically during the second half of the 1990s and further increases are already occurring in a number of countries. However, there have been widely divergent trends across different regions, with Central Europe showing much larger increases than Asia (Table 1).

Table 1. Foreign Bank Ownership in Selected Emerging Markets<sup>1</sup>

	Total Assets	Foreign Control <sup>2</sup>	Total Assets <sup>3</sup>	Foreign Participation	Foreign Control <sup>2</sup>	Foreign Control <sup>4</sup>
	December 1994 <i>(In billions of U.S. dollars)</i>	December 1994 <i>(In percent)</i>	December 1999 <i>(In billions of U.S. dollars)</i>	December 1999 <i>(In percent)</i>	December 1999 <i>(In percent)</i>	December 1999 <i>(In percent)</i>
<b>Central Europe</b>						
Czech Republic 5/	46,6	5,8	63,4	65,7	86,7	88,0
Hungary	26,8	19,8	32,6	59,5	56,6	80,4
Poland	39,4	2,1	91,1	36,3	52,8	52,8
Total	112,8	7,8	187,1	50,2	65,0	69,5
Turkey	52,0	2,7	156,2	1,6	1,7	1,7
<b>Latin America</b>						
Argentina	73,2	17,9	157,0	41,7	48,6	48,6
Brazil 5/	487,0	8,4	732,3	17,8	17,1	18,2
Chile	41,4	16,3	112,3	48,4	53,6	53,6
Colombia	28,3	6,2	45,3	16,2	17,8	17,8
Mexico 5/	210,2	1,0	204,5	54,1	47,6	61,7
Peru	12,3	6,7	26,3	33,2	33,4	33,4
Venezuela	16,3	0,3	24,7	34,7	41,9	43,9
Total	868,6	7,5	1302,4	29,8	29,5	32,2
Total excluding Brazil and Mexico	171,4	13,1	365,6	39,5	44,8	44,9
<b>Asia</b>						
Korea	638,0	0,8	642,4	11,2	4,3	16,2
Malaysia	149,7	6,8	220,6	14,4	11,5	11,5
Thailand	192,8	0,5	198,8	6,0	5,6	5,6
Total	980,5	1,6	1061,8	10,9	6,0	13,2

Source: IMF staff estimates based on data from Fitch IBCA's BankScope Database.

<sup>1</sup> Ownership data reflects changes up to December 1999 while balance sheet data is the most recent available in Fitch IBCA's BankScope.

<sup>2</sup> Ratio of assets of banks where foreigners own more than 50 percent of total equity to total bank assets.

<sup>3</sup> For Central Europe and Asia available balance sheet data is in most cases for December 1998.

<sup>4</sup> Same as footnote 2 but at 40 percent level.

<sup>5</sup> Includes major transactions in 2000-01.



The increased activities of foreign banks in emerging markets can be measured either in terms of foreign bank participation in domestic banking markets or in terms of how effectively foreign banks control banking activities. For example, while foreign banks might participate in a number of joint ventures as minority shareholders, the overall operations of the banks might be controlled by the local majority shareholders. Using publicly available balance sheet and ownership data,<sup>3</sup> Table 1 presents measures of both participation and control by foreign banks in different regions. Foreign participation is measured as the ratio of the sum across all banks of the assets of each bank multiplied by the percentage of equity held by foreigners to total bank assets. In contrast, the table presents two measures of the extent of bank assets under effective foreign control since corporate control may not be directly and exclusively related to the proportion of a bank's equity held by a particular owner. While holding more than 50 percent of total equity typically ensures effective control of a bank, a number of analysts have argued that hostile takeovers are unlikely to occur when the existing owners hold more than 40 percent of bank equity.<sup>4</sup> The extent of foreign control is thus measured by the ratio of the sum of the total assets of those banks where foreigners own more than either 40 or 50 percent of total equity to total bank assets.<sup>5</sup>

## Central Europe

Foreign participation in Central Europe increased considerably in the second half of the 1990s, and by mid-2001 the share of banking assets under foreign control had reached almost 70 percent (Table 1). Following the banking crises of the first half of the decade, the privatization of state-owned banks increased foreign participation substantially. Initially, most of the sales were of medium-sized banks, but more recently the large state-owned saving and foreign trade banks have been sold. Hungary took the lead in the privatization process, and by end-1999 foreign participation in the banking system was about 60 percent of total assets. Poland's privatization process, accelerated in 1999–2000 and, with the sale of Bank Pekao in mid-1999, the share of bank assets under foreign control rose to 53 percent. The Czech Republic began to privatize its state-owned banks in 1998, and by early 2000 three of the four large state-owned banks had been sold. As a result, foreign institutions controlled 46 percent of total banking assets by end-1999, and that share increased to more than 60 percent with the sale of the second largest bank in March 2000 and to almost 90 percent of bank assets with the sale of Komerční Banka to Societe Generale in mid-2001.

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<sup>3</sup> The data are from Fitch IBCA's Bank Scope data base. There are three major advantages of using this data base. First, coverage is comprehensive, with banks included accounting for about 90 percent of the assets of banks in each country; second, the agency makes an effort to adjust individual bank accounts for differences in reporting and accounting standards, and puts the accounts into a standardized global format (see Claessens, Demirgüç-Kunt, and Huizinga, 1999); and, third, it allows for the use of individual bank data (usually unavailable from official sources) to analyze several definitions of ownership and performance ratios for domestic and foreign banks. The main drawback is that the activities of some foreign branches are not captured, which leads to an underestimation of the level of foreign participation, especially in countries where entry through branches is the main modality—such as the Asian countries. Whenever such underestimation is important, this is indicated in the text.

<sup>4</sup> See García Cantera (1999).

<sup>5</sup> The measures of foreign participation and foreign control would be identical if all banks were fully (i.e., 100 percent) owned by either domestic or foreign investors. In some instances, our measures of foreign control can exceed the measure of foreign participation. This can occur because all the assets of a "controlled" bank are regarded as foreign-owned, whereas our participation measure counts as foreign-owned assets only the product of banks' assets and the proportion of equity held by foreigners.

## Latin America

Although foreign banks have been present in Latin America for many decades, there has been a quantitative jump in the degree of foreign participation in the second half of the 1990s with the acquisition program initiated by the leading Spanish financial institutions. Indeed, the presence of foreign banks is important not just because of the size of their market share but also because leading institutions in almost every country are controlled by foreign institutions.

Foreign banks had a relatively large presence in Argentina and Chile by end-1994 (see Table 1), but the share of assets under foreign control increased to the 50 percent level following a series of mergers and acquisitions in 1996–97. In the larger markets of Brazil and Mexico, foreign participation has traditionally been lower, but assets under foreign control had reached 18 percent by end-1999. However, the sale of the third-largest Mexican bank in May 2000 and of the second-largest in June 2000 brought the share of assets under foreign control to about 40 percent; the sale (yet to be completed) of the largest Mexican bank to Citigroup would bring that figure to more than 60 percent. Brazil is the only banking market in Latin America where foreigners are unlikely to have a dominant position, owing to a large share of bank assets under government control and the existence of three large, well-capitalized, and well-managed private banks. The entry of two large European banks in 1997–98 nevertheless changed the banking landscape and increased competition, and the privatization of some state banks has increased the share of foreign bank participation to around 20 percent of bank assets.

## Asia

Foreign banks have played a smaller role in most Asian financial systems than in Central Europe or Latin America, reflecting in part official policies that have limited entry, especially into local retail banking markets. The restrictions on foreign bank entry have typically involved limitations on both the number of foreign banks that could enter the market and the number of branches they could establish within the market. After the crisis, several countries have liberalized entry norms for foreign banks, with the exception of Malaysia. However, foreign bank participation in Malaysia is 23 percent of total commercial bank assets, one of the highest in the region.<sup>6</sup>

The speed and scope of the foreign influx in Korea and Thailand has been lower than originally expected by most analysts.<sup>7</sup> The sale of Korea First Bank to Newbridge Capital accounts for the increase in foreign control in Korea (see Table 1), while the increase in foreign participation also captures the increasing (minority) stakes in several banks.<sup>8</sup> Foreign bank participation in Thailand has been traditionally low, though the involvement of foreign banks has been larger than the figures in Table 1 suggest, owing to the banks operating through the Bangkok International Bank Facility (BIBF).<sup>9</sup> After the crisis, four banks were sold to foreign institutions, increasing the share under

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<sup>6</sup> This figure refers to commercial banks only; the figures in Table 1 are lower because they include finance companies and merchant banks that are majority-owned by Malaysian interests.

<sup>7</sup> The increase in foreign participation since the beginning of the financial crisis has been around 9 percent of total assets in both Korea and Thailand (including the recent sale of Bangkok Metropolitan Bank).

<sup>8</sup> Foreign banks have been allowed to open branches in Korea since 1967. There were 52 foreign bank branches in September 1997, and their market share was just 2 percent of total financial system assets (see Baliño and Ubide, 1999).

<sup>9</sup> The BIBF scheme was established in 1993 to develop Bangkok as a regional financial center. In addition to offshore lending, the BIBF also allowed to lend locally in foreign currencies, and the rapid growth of this

(continued...)

foreign control from 0.5 percent at end-1994 to 4.5 percent at end-1999 (Table 1). However, the share of assets under foreign control could rise with the privatization of the other intervened banks.

### III. FACTORS INCREASING FDI IN EMERGING MARKETS BANKING SYSTEMS

The dramatic increase in FDI in emerging markets banking systems is a result of the globalization of the financial services industry, together with the removal of barriers to entry in several emerging markets.

The globalization of the financial services industry has resulted in banks facing competition from a variety of nonbank sources of credit and financial services (particularly securities markets) and this has fueled an ongoing consolidation of banking systems in both mature and emerging markets.<sup>10</sup> Foreign bank interest in emerging markets has been driven by technology-induced economies of scale and scope that are being exploited by geographic and product diversification worldwide. While only a handful of banks are able to conduct global commercial banking, a number of banks, leveraging language and cultural affinities, have emerged as “regional evolvers”—that is, banks that focus their activities on a particular region, such as the Spanish banks in Latin America, the Austrian, Belgian, Dutch, and German banks in Central Europe, and, to a lesser extent, the Australian and Japanese banks in Asia.<sup>11</sup> The large Spanish banks redefined their international expansion strategy after the Asian crisis, pulling out of that region and focusing on becoming large regional banks in Latin America and Western Europe.

Although there are strong incentives for foreign banks to expand abroad, they have until recently faced substantial barriers to entry in most emerging markets. A greater openness to foreign trade and investment, combined with the need to build up more efficient and stable financial systems in the aftermath of crises, have been major catalysts for the removal of barriers to entry of foreign institutions. As noted by Eichengreen and Mussa (1998), many emerging markets have been reducing barriers to trade in financial services since the early 1990s and allowing for the entry of foreign financial institutions has been just one facet of this more general liberalization. Nonetheless, by the mid-1990s, only a modest amount of foreign bank entry had occurred (Table 1). In part, this limited foreign entry reflected concerns about the potential effects of foreign bank entry and the political resistance to such entry by the domestic banking industry.

While significant changes in the restrictions on foreign bank entry have at times been motivated by a desire to improve the levels of competition and efficiency in the banking system, they have often been triggered by the need to help reduce the costs of restructuring and recapitalizing banks following a major crisis, as well as a desire to build an institutional structure in the banking system that is more robust to future domestic and external shocks. The experience with banking system instability in many emerging markets since the 1970s (Lindgren, García, and Sall, 1996) has

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lending in 1994–97 contributed to the financial crisis (see IMF, 1998a). Despite the fact that this type of lending has been substantially curtailed since 1998, the numbers in Table 1 appear to underestimate foreign bank participation in Thailand.

<sup>10</sup> See G-10 (2001) for a thorough description and analysis of the process of consolidation in the mature markets and IMF (2001) for a similar process in emerging markets.

<sup>11</sup> A couple of Singaporean banks also have regional ambitions, especially Development Bank of Singapore, which has made acquisitions in Thailand, Hong Kong SAR, and the Philippines.

demonstrated the need to make domestic banking systems more robust to large external and domestic shocks. While the authorities in most emerging markets have moved to strengthen prudential supervision, there has been a recognition that relatively small banks holding internationally undiversified portfolios remain a source of vulnerability in the face of large shocks. To improve on this situation and often to help reduce the costs associated with recapitalizing and restructuring banks in a post crisis period, the authorities in a growing number of emerging markets have begun to open their banking systems to foreign entry in an effort to improve banking system efficiency and to have banks that are part of organizations that hold globally diversified portfolios.

While there are a number of factors that could potentially influence a bank's decision to enter a particular market or the authorities willingness to allow such entry, it is an empirical issue which of the factors have been most important during the 1990s. To examine the relative importance of the different factors influencing foreign bank entry, Mathieson and Roldos (2001) studied the determinants of foreign participation using data on 1,135 banks from 15 countries<sup>12</sup> for the period from 1991 to 1999. The estimation results for the pooled annual data suggest that, not surprisingly, foreign banks increase their participation in and control of banks that earn relatively high rates of return on equity. In addition, the results also suggest that a previous banking crisis and improved macroeconomic conditions are likely to lead to greater foreign participation and control. A banking crisis during the previous three year period raised both foreign participation and control by about 10 percentage points. This suggests that countries experiencing a banking crisis regularly turn to foreign banks to help rebuild and restructure the domestic banking system. Finally, the regional dummies are highly significant, confirming the differential attitude toward foreign bank entry in Asia and Central Europe.

#### **IV. EFFECTS OF FOREIGN BANK ENTRY**

The sharp rise in the level of foreign bank participation in many emerging markets is clear evidence that the authorities in these countries have concluded that foreign bank entry will have an overall positive effect on the efficiency and stability of the banking system. Nonetheless, the effects of foreign bank entry on the efficiency and stability of the local banking systems has been much debated in many countries. This section examines the nature of the arguments concerning the likely effects of foreign bank entry, as well as the available empirical evidence.

##### **Arguments Concerning Banking Efficiency and Stability**

Allowing foreign bank entry is generally seen as improving both the efficiency and stability of the banking system. It is argued that foreign banks will help improve the quality, pricing, and availability of financial services, both directly as providers of such enhanced services and indirectly through competition with domestic banks. These new financial products can provide better opportunities for portfolio diversification and intertemporal trade, and foreign banks are often seen as improving the allocation of credit since they have more sophisticated systems for evaluating and pricing credit risks. Similarly, it has also been argued that the entry of foreign banks can improve the overall stability of the domestic banking system. In particular, foreign banks can provide a more stable source of credit and can make the banking system more robust to shocks. This greater stability is said to reflect the fact that the branches and subsidiaries of large international banks can draw on their parent for additional funding and capital when needed. Finally, the entry of sound foreign banks is seen as implicitly allowing a country to import strong prudential supervision for at least a portion of the financial system.

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<sup>12</sup> The countries are Argentina, Brazil, Chile, Colombia, the Czech Republic, Hungary, Korea, Malaysia, Mexico, Peru, the Philippines, Poland, Thailand, Turkey, and Venezuela.

Others see foreign banks as making much less of a contribution to an efficient and stable banking system. One concern is that foreign banks “cherry pick” the most profitable domestic markets and customers, leaving domestic banks to serve the other (more risky) customers and thereby increase the overall riskiness of domestic banks’ portfolios. In addition, it has been argued that it may be difficult for foreign banks to transfer some of the credit risk evaluation methods used in mature markets, as their credit scoring methods may face informational constraints in emerging markets and end up reducing the availability of credit to small firms.<sup>13</sup> Apart from the impact of foreign bank entry upon the stability of domestic banks, there have also been concerns about the behavior of foreign banks during crisis periods. Indeed, in Asia one of the most frequently cited reasons for limited foreign bank entry is the perception that foreign banks have “cut and run” during recent crises, especially in the period following the 1997 crises. While it is evident that cross-border lending to emerging markets has often fallen sharply in the 1990s in post crisis periods, there is the question of whether foreign banks with a local presence are more likely to maintain their exposures to domestic borrowers than are foreign banks that only engage in cross-border lending. A final concern that is often voiced is linked to the issue of whether they will be adequately supervised: some observers have argued that the complex cross-border financial transactions undertaken by international banks may be difficult to supervise by either the host or the home country supervisors.

### **Empirical Evidence on Efficiency Effects**

This debate over the potential effects of foreign bank entry has led to a number of recent empirical studies of the efficiency and, to a lesser extent, the stability effects of foreign bank entry. One of the striking results of recent studies of the effects of foreign bank entry on banking system efficiency is the differing results for mature and emerging markets. In examining the experience of France, Germany, Spain, the United Kingdom and the United States, for example, Berger and others (2000) analyzed cost and profit efficiency for both foreign and domestic banks using annual data for 1993–98. In these mature markets, they found that foreign banks were less efficient in terms of either costs or profits, on average, than domestic banks. However, some banking organizations—particularly from the United States—were found to consistently operate at or above the efficiency levels of domestic banks. They argued that this latter result reflected the fact that the home field advantages of domestic banks were offset by the global advantages (which reflect such factors as superior risk management practices, superior product mix, or more diversified portfolios) enjoyed by some foreign banks.

In contrast, virtually all empirical studies that have included either mixed samples of mature and emerging markets or have focused on emerging markets have concluded that foreign banks have been more efficient in terms of both costs and profits. For example, Claessens, Demirgüç-Kunt, and Huizinga (1999) examined the behavior of banks in 80 mature and emerging markets in the period from 1988 to 1995 to investigate how net interest rate margins (between lending and deposit rates), overhead expenses, taxes paid, and profitability differed between foreign and domestic banks. Foreign banks were found to have higher interest rate margins, profitability, and tax payments than domestic banks in emerging markets, while the opposite was true in mature markets. Moreover, significant foreign bank entry was associated with a reduction in both the profitability and overall expenses of domestic banks. In addition, the efficiency effects of foreign banks on emerging markets banking systems appeared to occur as soon as there was entry and did not depend on gaining a substantial

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<sup>13</sup> See Garber and Weisbrod (1994).

market share.<sup>14</sup> Performance indicators for a sample of emerging markets in the more recent period 1996–98 (see IMF, 2000) seem to confirm that foreign banks operating in these markets are relatively more efficient than domestic banks. Finally, further evidence on the beneficial effects of foreign competition is provided by qualitative studies that assess the response of the successful local incumbents (see, for example, Abut, 1999).

There are no broad-based studies on whether foreign banks ration credit to small firms to a larger extent than domestic banks, but a recent study on the Argentine banking industry does find evidence supporting that hypothesis. Berger, Klapper, and Udell (2001) show that small businesses tend to receive less credit from large banks and foreign banks, and that this effect is magnified for small firms with loan repayment delinquencies. The authors argue that foreign-owned institutions may have difficulty extending relationship loans to opaque small firms.

Why is there such a sharp contrast between the effects of foreign bank entry for mature and emerging markets? To a significant degree, the contrasting results reflect differences in initial conditions. All of the recent studies of mature markets cover periods where the banking system regulations have long since been liberalized, and banks faced competition not only from other banks but also from a variety of nonbank sources of credit (especially capital markets). Such competition had already put intense pressures on net interest rate margins and forced banks to merge and/or adopt new technologies to help reduce overhead costs. While foreign bank entry could intensify these competitive pressures, the scale of such an increase would typically be marginal. In contrast, the studies of the effect of such entry on emerging markets have typically focused on periods where the banking systems have only recently been liberalized and/or were coming out of crisis periods. In either situation, the banks were just emerging from periods where there had often been extensive restriction on new entry into the banking system, nonmarket determination of key interest rates (because of either official interest rate ceilings or oligopolistic determination of the interest rate structure by bankers' associations), and limited degrees of competition from nonbank sources of credit. While such an environment increased the franchise value of banks and allowed relatively inefficient banks to survive, these created strong profit opportunities for new banks that could operate with more efficient cost structures and offer more market-related interest rates. In this situation, the entry of foreign banks could have a major impact on banking system efficiency both directly because of their own operations and indirectly because they forced other banks to become more efficient if they wished to survive.

### **Empirical Evidence on the Stability Effects of Foreign Bank Entry**

Whatever the effects of foreign bank entry on banking system efficiency, an equally important issue for many emerging markets is whether such banks are likely to contribute to banking system stability and to be a stable source of credit, especially in crisis periods. There are two related issues here: whether the presence of foreign banks makes systemic banking crises more or less likely to occur, and whether there is a tendency for foreign banks to “cut and run” during a crisis.

There are surprisingly few studies of the relationship between foreign bank entry and systemic banking crises. However, Levine (1999) has recently attempted to analyze the impact of foreign bank presence on the probability that a banking crisis will occur. Levine's empirical study builds on the earlier work of Demirgüç-Kunt and Detragiache (1998), which used a multivariate logit model to relate the probability that a banking crisis would occur during a particular period to a series of macroeconomic and banking system indicators by adding a measure of the number of foreign banks relative to the total number of banks. The foreign bank share variable was found to have a negative

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<sup>14</sup> Studies of the experiences of Argentina (Clarke and others, 1999), Colombia (Barajas, Steiner, and Salazar, 1999), Turkey (Denizer, 1999), and eight Asian economies (Claessens and Glaessner, 1999) also report results that support these conclusions.

and significant coefficient, which led Levine to conclude, after controlling for the effects of other factors that are likely to produce banking crises, that greater foreign bank participation was a stabilizing factor.

The stability of foreign bank lending has also been examined by contrasting the behavior of cross-border and local lending<sup>15</sup> by foreign banks during crisis periods. For example, Palmer (2000) noted that U.S. money center banks generally sustained the operations of their offshore branches and subsidiaries during the recent emerging market crises. While cross-border claims in Asia decreased 36 percent between June 1997 and June 1999, local claims declined just 6 percent (in Korea, local claims actually rose 19 percent). In addition, U.S. banks' claims on Latin American countries actually increased during that period. Palmer (2000) argued that the disparity between movements in cross-border and local claims reflected the fact that U.S. banks that had developed local franchises in the region saw good prospects beyond the crises, while the extent of franchise development (and the associated commitment) was much less for institutions primarily involved in cross-border lending.<sup>16</sup> Peek and Rosengren (2000) find substitutability between cross-border lending and increased FDI in some Latin American banking systems, but they conclude that measures of foreign bank penetration that include both lending by subsidiaries and cross-border lending do increase after crisis episodes. Finally, Goldberg, Dages, and Kinney (2000) examined the lending behavior of foreign and domestic banks in Argentina and Mexico in the period surrounding the 1994–95 Mexican crisis and concluded that foreign banks exhibited stronger loan growth compared to all domestic-owned banks, with lower associated volatility, and thereby contributed to greater stability in overall financial system credit. Furthermore, they found strong similarities in the portfolio composition of lending and the volatility of lending by private foreign and domestic banks in Argentina, while the same was true in Mexico for banks with low levels of problem loans. Overall, they argued that bank health, and not ownership, *per se*, was the critical element in the growth and volatility of bank credit.

In a more recent study of the Asian experience, Laeven (1999) considered the behavior of foreign and domestic banks in East Asia (Indonesia, Korea, Malaysia, the Philippines, and Thailand) in 1992–96 to identify the role of ownership structure in determining vulnerability to domestic and external shocks. In examining both the profitability and risk-taking activities of banks, he found that foreign-owned banks took relatively limited risks and showed an increase in efficiency relative to other banks. In addition, family-owned and company-owned banks were found to hold the most risky portfolios. Moreover, banks that required restructuring after the crisis of 1997 occurred were mostly family-owned or company-owned and almost never foreign-owned.

It is often argued that local operations of foreign banks are likely to have recourse to additional capital from their head-offices in times of financial stress. However, this is a largely untested proposition, with only a few clear examples to support it. In Hungary, for example, when the brokerage subsidiaries of foreign banks suffered large losses in the aftermath of the Russian crisis, head-offices quickly injected capital.<sup>17</sup> However, relative to the size of local operations, the recapitalizations required were small. In another example of foreign support, Portugal's Banco Espírito Santo injected more capital into its Brazilian subsidiary Banco Boavista Interatlantico, after the latter had to make good on the losses sustained by its mutual funds after the real's devaluation of January 1999. Similarly, Credit Commercial de France injected capital into its Brazilian subsidiary

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<sup>15</sup> Cross-border claims are those booked outside the foreign counterparty's home country, usually at the lender's head office. Local claims on the foreign counterparty are those booked in the local office of the reporting bank, that is, offices located in the country of the counterparty.

<sup>16</sup> See IMF (2000).

<sup>17</sup> See IMF (1999).

(CCF do Brasil) in 1998 to absorb losses derived from the financial markets turbulence of October 1997.<sup>18</sup> However, there are also examples of foreign banks that withdrew from emerging markets after having failed to establish a profitable presence. Market participants suggest foreign banks will likely examine whether or not to inject capital on a case-by-case basis, trading off future value (including international reputational effects) against cost. Minority shareholders are viewed as less likely to make capital injections during periods of financial stress.

Apart from the stability of foreign bank lending and capital support, there is also the issue of whether foreign banks can contribute to the stability of the domestic deposit base. Foreign banks contribute to the stability of the domestic financial system, for example, if depositors shift their funds to foreign institutions that are perceived as sounder than the local banks rather than engaging in capital flight. Flight-to-quality was widespread during the Asian crises, as depositors shifted funds from finance companies and small banks toward large banks, especially foreign banks. The market share of deposits in foreign banks tripled in Korea and Indonesia between January 1997 and July 1998, while in Thailand it increased from 2 percent of total deposits to 5 percent in the period December 1996 to December 1997.<sup>19</sup> The crisis that began with the failure of a large bank in Argentina in March 1980 led to runs on three other banks, with foreign banks among the beneficiaries of the flight-to-quality.<sup>20</sup> Similarly, concerns about the ability of Argentine banks to meet depositor demands following the Mexican crisis of 1995 led depositors to shift their funds to foreign banks.<sup>21</sup> More recently, rumors of financial difficulties at Postabank—the second largest bank in Hungary—led to a run by depositors that benefited in part foreign institutions.<sup>22</sup>

In sum, the evidence on the effects of foreign bank entry supports the conclusion that the competitive pressures created by such entry have led to improvements in banking system efficiency in terms of lower operating costs and smaller margins between lending and deposit interest rates. There is as yet only limited evidence as to whether a greater foreign bank presence contributes to a more stable banking system and less volatility in the availability of credit.

## **V. POLICY ISSUES**

The growing presence of foreign banks has raised a number of complex policy issues, especially in relation to cross-border supervision and regulation, banking system concentration, and systemic risks and official safety nets.

### **Cross-Border Supervision and Regulation**

The growing presence of foreign banks in many emerging markets, as well as the expansion of emerging markets banks to offshore markets, have increased the complexity of the tasks facing supervisory authorities, especially in emerging markets. Banking supervisors have long been aware of the potential problems associated with the cross border banking activities, and a series of principles

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<sup>18</sup> See Fitch IBCA (1999b).

<sup>19</sup> See Domac and Ferri (1999).

<sup>20</sup> See Baliño (1991).

<sup>21</sup> See IMF (1995).

<sup>22</sup> See OECD (1999).

and best practices has evolved to establish effective prudential supervision of these activities. The key objective of the supervisors of internationally active banks has remained that of ensuring that no activity of these banks escapes effective supervision and that coordinated remedial action can be undertaken when necessary. Nonetheless, the collapse of institutions such as BCCI in 1991 and Peregrine Investments in 1998<sup>23</sup> has illustrated how a constantly evolving set of institutional structures and legal arrangements could potentially be used to escape effective prudential supervision.

Moreover, the recent experience of the Bank of New York has demonstrated how readily cross-border banking linkages can be used for purposes of fraud and money laundering. Indeed, one of the on-going concerns of bank analysts and supervisory authorities is that the increasing complexity of cross-border banking activities and institutional arrangements—including the development of virtual banks that operate in several jurisdictions,<sup>24</sup> will allow some activities to “fall between the cracks.”

From the perspective of emerging markets banking supervisors, there are a number of issues that have become increasingly important as the presence of foreign banks has expanded. First, there is the issue of how to monitor the local establishments of large international and regional banks. As foreign banks become an important source of financial services, emerging markets supervisors need to be aware of the financial positions of not only the local branches and subsidiaries of major international and regional banks but also the parent bank. Indeed, difficulties at the parent bank could raise questions about the survivability of the local affiliate, even if its position is fundamentally sound. Second, one of the key strategies employed by major international banks to gain market share when they enter an emerging market is to offer a variety of new financial products, including OTC derivative products. While these new derivative products can allow for better hedging of a variety of risks, experience has shown that they can be readily used to evade prudential regulations. As a result, emerging markets’ supervisors will need to upgrade their ability to analyze the growing use of these instruments. A third issue is understanding when and to what extent parent banking organizations will support their local operations in times of difficulty or crisis.

### ***Large Complex Banking Organizations***

The ongoing consolidation of the global bank industry has created a set of large international and regional banks that engage in a broad range of complex on- and off-balance-sheet transactions and their total assets are multiples of most emerging markets GDPs. These institutions are typically the parents of the foreign branches and subsidiaries established in most emerging markets. Understanding and supervising the exposure of these large international organizations has led to special measures by mature markets supervisors and requires a level of financial expertise that may be lacking in many emerging markets. For instance, supervisors in the United States have selected a small subset of large, complex, banking organizations (LCBOs), and have established teams of examiners that are dedicated to monitor each one of these LCBOs.<sup>25</sup> Since difficulties at one of these parent organizations could quickly create doubts about the viability of its local branches and subsidiaries, the stability of emerging markets financial systems has become increasingly dependent on the quality of prudential supervision in the mature markets. Nonetheless, emerging markets supervisors will still need to develop the expertise to monitor a new range of activities and instruments that are likely to be used by

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<sup>23</sup> Peregrine had grown to become Asia’s largest investment bank outside Japan before its collapse in January 1998. It was not registered or regulated as an investment bank, but was in fact structured as a group with some 200 subsidiaries, of which many were special purpose vehicles registered offshore (see IMF, 1998a).

<sup>24</sup> See IMF 2001 for a discussion of issues related to the growth of e-finance.

<sup>25</sup> See Meyer (1999).

the local establishments of LCBOs. The need to acquire such expertise has been demonstrated by the role that derivative products have played in recent balance of payments crises.

### ***Derivative Products and Prudential Supervision***

As noted earlier, one of the strategies employed by major international banks when they enter an emerging market is to offer a variety of new products, including OTC derivative products. These new derivative products can be a source of considerable benefit since they increase the ability to separate and market risks and thereby allow for better hedging of a variety of risks that were previously undiversifiable. However, as noted by Garber (2000), these instruments can also be used to take on excessive risks, especially in weak financial systems with obsolete accounting systems, slow reporting systems, and unprepared supervisors. Moreover, derivatives can be used to evade prudential regulation and capital or exchange controls.<sup>26</sup>

### ***Parental Support***

A key consideration influencing the decisions of both the authorities to allow foreign banks to enter and local residents to place deposit in these banks is the extent of that support that these banks are likely to receive from their parents. There are both legal and reputational issues involved in determining the support that is likely to be forthcoming during difficult periods. From a narrow legal perspective, a bank subsidiary is a stand-alone entity with its own dedicated capital, and the parent's formal obligation to support its subsidiary is generally limited to the amount of invested capital. However, the relationship between a bank and its subsidiary can be broader as a result of statutes (U.S.law, for example, requires banks to guarantee their subsidiaries' capital) or from contractual provisions between a bank and its subsidiary (that may be imposed by the regulatory authorities as a condition for issuing a license to a subsidiary). In contrast, a branch has no independent legal personality distinct from that of its parent, and claims on the branch actually constitute claims on the parent.<sup>27</sup> Even apart from the legal requirements, a parent bank would typically have an incentive to support its local branches and subsidiaries because of the reputational effects associated with allowing their failure and collapse. Indeed, the failure of a large branch or subsidiary in one country could call into question the parent's support for its establishments in other countries or even the strength of the parent's own financial position.

A number of factors are likely to influence both the likelihood and extent of a parent bank's support for its foreign establishments. One key factor is the financial position of the parent bank. A parent bank under profit pressure and with a weak capital position may have little capacity to raise the funds need to recapitalize a large troubled foreign entity. Another important factor is the degree to which the parent bank is committed to developing a sustained presence in the local market. As noted earlier, some foreign banks enter a market primarily to service customers from their home market that have set up operations in the local market. Should those customers fail or leave the market, these banks would be less inclined to maintain a local presence. Another issue is the degree to which the difficulties encountered by the local establishment have arisen as a result of its own actions (such as having inadequate controls against fraud) or are due to events beyond its control (such as the imposition of capital controls or the expropriation of its assets). While the parent bank will typically have a strong incentive to remedy problems created by weak internal controls, it may have a much

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<sup>26</sup> See Mathieson and Roldos (2001).

<sup>27</sup> See IMF (1998b), p. 51.

smaller incentive to support its local establishment if *force majeure* events prevent the local entity from making payments.<sup>28</sup>

### **Banking System Concentration**

The expansion of large foreign banks (often with global balance sheets several times local GDP) into emerging markets have prompted concerns about concentration in the local banking markets. The entry of such institutions can affect banking system concentration both directly and indirectly. In some cases, large foreign banks have acquired a significant share of local bank assets by purchasing a local state bank that was being privatized or by acquisition of a large private bank that was in need of recapitalization. The entry of such banks would in turn create pressures on local banks to merge to remain competitive both by capturing economies of scale in back office operations and by being viewed by depositors as offering the same degree of safety and soundness as large foreign banks. Moreover, in some countries, such as Chile, the concentration issue arose when the parents of two local foreign banks merged.<sup>29</sup>

There are concerns that such concentration could create monopoly power that would reduce banking system efficiency and the availability of credit, open up new avenues for the transmission of disturbances from mature to emerging markets, and increase the risk that these institutions will become too big to fail locally. It has been argued that a high degree of banking system concentration will adversely affect output and growth by yielding both higher interest rate spreads (with higher loan rate and lower deposit rates) and a lower stock of credit than in a less concentrated, more competitive system. However, there are conflicting theoretical views on the effects of such concentration on growth and output, and the limited empirical evidence yields conflicting results.<sup>30</sup> In any event, the recent experiences of Chile and Mexico suggest that emerging markets should equip themselves with antitrust laws appropriate to deal with the complex issues involved in the definition and resolution of anticompetitive cases in the financial sector. The share of total assets held by some of the international banks in Central Europe and Latin America is around the 15–25 percent level, suggesting fairly large exposures to relatively volatile regions and also highlighting the potential for “reverse contagion.”<sup>31</sup>

### **Systemic Risk, Official Safety Nets, and Cross-Border Banking**

Systemic risk associated with cross-border banking can arise if either liquidity or solvency problems of banks in one country create similar problems for financial institutions elsewhere in the international financial system. As noted by Berger and others (2000), the contagion effects associated with such problems can be transferred across different financial systems through failures to settle in payments systems, panic runs that follow the revelation of institutional problems, or falling prices,

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<sup>28</sup> It is evident from recent episodes of “ring-fencing” of the obligations of the local branches of some major international banks in Asia that there are clear limits on the extent of parental support for these local operations (see IMF 2000).

<sup>29</sup> The merger of Banco Santander with Banco Central Hispano resulted in the merger of their respective subsidiaries, Banco Santander Chile and Banco Santiago, the two largest banks in the country with a combined market share of about 28 percent of total deposits (see IMF 2001).

<sup>30</sup> For example, Levine (2000) found no statistical relationship between banking system concentration and any negative outcomes for financial sector development, banking system fragility, or growth. In contrast Cetorelli and Gambera (1999) found that, while banking system concentration help those industries heavily dependent on external financing, the overall effect on output was negative.

<sup>31</sup> See IMF (2000 and 2001).

liquidity problems, or markets failing to clear when large volumes are traded under crisis conditions. In addition to creating problems for the implementation of monetary policy, such contagion will also impose the costs arising from the bankruptcy and financial distress of institutions affected by the contagion.

Systemic risk can conceptually either decrease or increase as a result of a growing foreign presence in the banking system. Consolidation may help reduce systemic risks if it creates a smaller set of larger institutions that are more efficient, better diversified and that can be monitored more readily by prudential supervisors and market participants. On the other hand, systemic risks could rise because the failure of larger institutions can be more severe. In addition, a weakened parent bank could quickly drain funds from a local bank to support its own position.

Cross-border banking activities can affect the cost of maintaining an official safety net under the financial system in a number of ways. If governments are more likely to protect large banks because they are regarded as “too big to fail,” then the mergers stimulated by foreign bank entry could increase the implicit costs associated with maintaining the official safety net. To contain these costs, there will be a need to strengthen prudential supervision of such institutions or eventually to limit mergers that increase systemic risks sharply. Moreover, the entry of foreign banks and associated local mergers could bring into the official safety net institutions that normally receive only limited access to the safety net. In many emerging markets, banks are not stand-alone institutions but are rather a part of holding company groups. Even when banks are of a relatively modest size, the existence of these groups raises issues about what level of consolidation should occur when evaluating bank capital adequacy. The key issues are that the holding company can potentially transfer capital and asset and liability positions among its various entities if they are not treated on a consolidated basis and that there will not be arms-length transactions between the various members of the group. As the banks owned by the groups become too large to fail, there is the concern that support provided to the bank during a crisis period will either directly or indirectly assist the rest of the group. In many respects, these potential problems can only be minimized by consolidation at the group level.

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