

## **Opening to Foreign Banks: Issues of Stability, Efficiency, and Growth**

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July 1998

### Abstract

This paper evaluates whether foreign bank activity (i) increases the likelihood of suffering a banking crisis, (ii) improves the efficiency of domestic banks, and (iii) accelerates long-run economic growth. Using bank-level data across a broad cross-section of countries, we find foreign bank participation (1) lowers the probability that a country will experience a banking crisis, (2) lowers overhead costs and profits of domestic banks, and (3) accelerates overall economic growth by boosting domestic banking efficiency.

\* A. Demirguc-Kunt: World Bank; R. Levine: University of Minnesota; H.Min: World Bank. We thank Edward Kane, Val Koromzay, Allan Meltzer, Adrian Orr, and John Taylor for helpful comments. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the World Bank, its Executives Directors, or member countries. This paper was prepared for the Bank of Korea conference, “The Implications of Globalization of World Financial Markets,” in Seoul, Korea, June 1998.

## **I. Introduction**

Both the steady globalization of financial markets and the sudden crash in East Asia last year motivate an inquiry into the potential benefits, costs, and risks associated with international banking. Foreign banks may create competitive pressures that stimulate efficiency, innovation, and stronger supervision and regulation. Through these channels, liberalizing restrictions on foreign bank activity would improve the quality of financial services, boost economic growth, and reduce financial fragility. On the other hand, foreign banks may facilitate international capital flows, spur excessive borrowing, and overwhelm the capabilities of domestic regulators. In these ways, foreign banks would destabilize domestic markets, without substantially improving domestic banking services or accelerating long-run economic growth. Versions of these polar views have been hotly debated in newspapers, magazines, policy forums, and academic conferences.

In light of existing debates regarding the efficacy of liberalizing restrictions on foreign bank activity, this paper offers empirical evidence on three questions associated with foreign banks:

1. *Do foreign banks increase the likelihood that a country will suffer a banking crisis?*
2. *Do foreign banks improve the efficiency of the domestic banking system?*
3. *Do foreign banks accelerate long-run economic growth?*

If foreign banks increase the probability that a country will experience a severe banking crisis, then this would make policymakers wary of easing entry restrictions on foreign banks. In contrast, if foreign banks do not raise the likelihood of suffering a banking crisis, then this should reduce policymaker concerns about liberalization. Similarly, if foreign banks improve the quality of domestic financial services through competition and the direct importation of modern banking skills and technologies, then this would favor liberalizing impediments to foreign bank entry. Although acutely relevant for pending policy initiatives, there exists surprisingly little rigorous, cross-country

empirical evidence on the relationship between foreign bank activity and financial fragility, banking efficiency, and economic performance.

This paper finds very strong evidence regarding the impact of foreign banks on fragility and efficiency and suggestive results on long-run growth. Specially, we find the following:

1. ***Foreign banks do not increase the likelihood that a country will suffer a banking crisis.*** Indeed, we find that greater foreign bank participation in the domestic banking system tends to lower the probability that a country will experience a banking crisis.
2. ***Foreign banks improve the efficiency of the domestic banking system.*** Countries where foreign banks play a larger role tend to have more efficient domestic banks, that is banks with smaller overhead costs and lower profits. Our case-study of Korea supports this conclusion.
3. ***Foreign banks accelerate long-run economic growth by boosting domestic banking efficiency.*** Although foreign banks do not exert a significant direct impact on economic growth, they boost the efficiency of the domestic banking system, and greater efficiency is strongly linked with faster growth. Specifically, we find that countries with more foreign banks have smaller average overhead costs, and these smaller overhead costs are positively and robustly linked with long-run growth.

The paper uses different econometric methods to examine the impact of foreign banks on bank fragility, bank efficiency, and overall economic growth. First, based on the work of Demirguc-Kunt and Detragiache (1998), we use a multivariate logit econometric model to estimate the probability of a banking crisis using a large set of explanatory variables. We focus on the relationship between foreign bank participation and financial fragility. After controlling for characteristics of national banking systems, macroeconomic conditions, and the international environment, we study whether foreign bank entry affects the probability that a country will experience a banking crisis. We use two measures of foreign bank activity. The first measure, FOREIGN ASSETS, equals foreign bank assets as a share of total domestic banking assets. The

second measure, FOREIGN BANKS, equals the number of foreign banks divided by the total number of banks in the country. We classify a bank as foreign if at least 50 percent of its shares are foreign-owned. We find that FOREIGN ASSETS is negatively, though insignificantly, associated with the probability of suffering a banking crisis. We find that FOREIGN BANKS is negatively and significantly correlated with banking crises. That is, greater foreign bank activity tends to reduce the probability that a country will experience a crisis.

This paper also examines whether foreign bank entry spurs competition and raises domestic banking efficiency. We use balance sheet data of commercial banks for 80 countries over the period 1988-1995. We confirm the findings in Claessens, Demirguc-Kunt, and Huizinga (1997). Although FOREIGN ASSETS is unrelated to domestic banking efficiency, FOREIGN BANKS is negatively, significantly, and robustly associated with overhead expenses and before tax profits. Thus, the evidence is consistent with the view that foreign bank entry spurs competition and efficiency. Moreover, foreign banks do not have to gain substantial market share to initiate this efficiency-enhancing competitive response by domestic banks.

Finally, to examine the relationship between foreign bank activity and long-run economic growth, we use standard cross-country growth regressions using data on 60 countries, one observation per country, over the period 1980-1995. We find no direct connection between foreign bank activity (either FOREIGN ASSETS or FOREIGN BANKS) and economic growth. We do, however, find an indirect link. Foreign bank participation is associated with a drop in bank overhead expenses and lower overhead costs is robustly linked with faster long-run economic growth. Thus, the data suggest -- though do not irrevocably establish -- a simple, compelling story: foreign banks spur competition and boost domestic bank efficiency and thereby accelerate economic growth.

The remainder of the paper is organized as follows. Section II presents evidence on the econometric relationship between foreign banks and banking crises. In Section III, we study the association between foreign banking and the efficiency of domestic banks. Then, in Section III, we present evidence on the linkages between foreign banks and long-run economic growth. The particular case of Korea is discussed in Section IV, while Section V concludes.

## **II. Foreign Banks and Bank Fragility**

### **A. Conceptual Issues**

Conceptually, foreign banks may influence financial fragility in both positive and harmful ways.<sup>1</sup> In terms of potential harms, foreign banks are often accused of stimulating capital flight. Thus, in stressful times, foreign banks may facilitate capital outflows, currency crises, and financial instability. Second, many analysts fear that foreign banks will flee when faced with problems in local markets or when faced with problems in their home market. This lack of “commitment” would enhance the fragility of the domestic financial system, especially if foreign banks account for a large share of the domestic banking system. A third concern associated with foreign banks involves supervision and regulation. Reduced entry restrictions on foreign banks may accompany broader efforts to deregulate the domestic banking system. The combination may overwhelm domestic banking officials and create a more risky environment.

Countervailing arguments, however, suggest that foreign bank activity may not intensify fragility and may even enhance stability. First, there exists no systematic evidence demonstrating that foreign banks facilitate capital outflows and bank fragility. Second, although there are isolated examples of industrialized-country banks retreating from overseas markets [Peek and Rosengren

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<sup>1</sup> For citations, see Levine (1996).

1997; Vittas 1995], there exists no systematic cross-country evidence suggesting that foreign banks have less commitment than domestic banks. Third, though foreign activity should not run ahead of the domestic supervisory capabilities, this sequencing concern should not necessarily become a pretext for restricting foreign bank entry. Indeed, Glaessner and Oks (1996) argue that when Mexico made a reciprocal agreement to open to United States banks under NAFTA, this stimulated an improvement in Mexican regulatory, supervisory, and accounting standards. Specifically, to gain access to the United States, Mexican banks must demonstrate to the Federal Reserve that Mexican supervisors adequately supervise its banks and related financial institutions. Thus, once Mexico started to open its doors to U.S. banks and sought entry for its banks in the U.S., there were pressures to harmonize prudential regulations, in areas such as capital adequacy, valuation and accounting principles, related-party transactions, and conflict-of-interest provisions.<sup>2</sup> Tough too late to avoid the 1994-5 Mexican banking crisis, liberalizing entry restrictions on foreign banks may set in motion forces that lead to better supervision, regulation, and accounting systems. In sum, though sound conceptual arguments exist for and against foreign bank entry, the major gap is evidence: there is little systematic evidence regarding the connection between foreign bank entry and domestic financial fragility.

#### B. Foreign Banks and Bank Fragility: Methodology<sup>3</sup>

Considering the work of Demirguc-Kunt and Detragiache (1997ab, 1998), we empirically examine the relationship between foreign bank entry and banking crisis. We first describe the econometric methodology and then discuss the results.

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<sup>2</sup> White (1995) discusses when harmonization of regulations versus competition will produce the best set of regulations for promoting sound financial systems.

<sup>3</sup> This section relies very heavily on the description in Demirguc-Kunt and Detragiache (1998).

*sample/foreign bank data:* We have data on foreign banks, banking crises, and an array of variables that we use to control for cross-country differences in banking sector conditions, macroeconomic stability, and the international environment. The data on the domestic banking sector, including foreign bank participation and size, is from the BankScope data base, which is provided by IBCA. According to IBCA, the data account for about 90 percent of the assets of banks in each country. The data on the share of foreign banks are listed in Table 1. We recognize that there may be shortcomings with these data in terms of defining and measuring foreign banks and in terms of comprehensively measuring each country's banking sector. For these reasons, we list the data and hope that future research develops better measures of the impact of foreign banking on the financial system. Here, we simply note that IBCA data are considered of high quality and are based on income and balance sheet data from over 7900 individual commercial banks. We believe these data provide a useful look into the impact of foreign banks on stability, efficiency, and growth.

*Econometric model* To identify the impact of foreign banks on financial fragility, we estimate the probability of a banking crisis using a multivariate logit model. The probability that a crisis will occur at a particular time in a particular country is modeled as a function of  $n$  variables,  $X(i, t)$ , including the foreign bank variables.  $P(i, t)$  takes the value of one when a banking crisis occurs in country  $i$  and time  $t$  and a value of zero otherwise.<sup>4</sup>  $\beta$  is an  $n$ -dimensional coefficient vector and  $F(\beta'X(i, t))$  is the cumulative probability function. The log-likelihood function is then

$$\ln L = \sum_{t=1..T} \sum_{i=1..n} \{P(i,t)\ln[F(\beta'X(i,t))] + (1-P(i,t)) \ln[1- F(\beta'X(i,t))]\}.$$

To model F, we use the logistic functional form. Thus the estimated coefficients do not indicate the increase in the probability of a crisis given a one-unit increase in the corresponding explanatory variable. Although the sign of the coefficient indicates the direction of the change, the magnitude depends on the slope of the cumulative distribution function at  $\beta'X(i,t)$ . Thus, we test the null hypothesis that greater foreign bank entry does not significantly increase the probability of a crisis, holding other factors constant.

***banking crisis indicator*** Following Demirgüç-Kunt and Detragiache (1998), we identify a banking crisis if at least one of the following conditions applies: the ratio of non-performing assets to total assets in the banking system exceeded 10 percent; the cost of the rescue operation was at least 2 percent of GDP; banking sector problems resulted in a large scale nationalization of banks; extensive bank runs took place or emergency measures such as deposit freezes, prolonged bank holidays, or generalized deposit guarantees were enacted by the government in response to the crisis. A list of the crisis episodes is presented in Table 2.

***control variables*** The set of control variables is chosen based on the theory of banking crises and data availability.<sup>5</sup> The first group of control variables captures macroeconomic and international factors, such as the rate of growth of real GDP, the level of GDP per capita, the external terms of trade, the rate of inflation, and real short-term interest rate. The second set of control variables includes characteristics of the banking system, such as vulnerability to sudden capital outflows (measured as M2 divided by foreign exchange reserves, Calvo, 1996), liquidity (measured by the ratio of bank cash and reserves to bank assets), exposure to the private sector

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<sup>4</sup> Note, banking crises will likely affect the explanatory variables. Since these feed-back effects could bias or make the estimation less efficient, we eliminate years in which banking crises are occurring.

<sup>5</sup> For more details on the relationship between the theory of banking crises and the choice of control variables, see Demirgüç-Kunt and Detragiache (1997).



(measured by the ratio of loans to the private sector to total loans), and lagged credit growth (as a measure of whether past credit expansion is financing an asset price bubble). Finally, we include the number of past crises, the duration of the last spell, and the time since the last crisis since the probability of a future crisis may depend on past fragility.

### C. Foreign Banks and Bank Fragility: Results

The data show that foreign banks do not increase the likelihood that a country will suffer a banking crisis. Indeed, the data suggest that foreign banks tend to lower the probability of a banking crisis. The results are summarized in regressions 1-4 of Table 3. Regressions 1 and 2 include FOREIGN ASSETS, the ratio of foreign bank assets to total bank assets in the economy. Regression 3 and 4 include FOREIGN BANKS, which equals the number of foreign bank divided by the total number of banks in the economy. FOREIGN ASSETS is negatively, though insignificantly, correlated with banking crises. FOREIGN BANKS is negatively and significantly correlated with the likelihood of experiencing a banking crisis. Thus, there is no indication that foreign banks increase fragility. The data, instead, indicate that an increase in the number of foreign banks is negatively associated with the incidence of banking system fragility. These results suggest that foreign banks reduce domestic bank fragility as they enter the economy rather than as foreign banks gain market share.

### **III. Foreign Banks and Domestic Bank Efficiency**

This section examines whether foreign banks affect domestic bank efficiency. Specifically, we study whether foreign banks influence domestic bank profit margins and overhead expenses as in Claessens, Demirguc-Kunt, and Huizinga (1997).

### A. Concepts and Case-Studies

Easing restrictions on foreign bank entry may improve the quality, pricing, and availability of banking services in a number of ways. Foreign banks may directly bring new and better skills, management techniques, training procedures, technology, and products to the domestic market. Also, foreign banks may indirectly boost efficiency by stimulating competition in and contestability of domestic financial markets, which will put downward pressure on profits and overhead expenses [Terrell 1986]. Furthermore, foreign banks may accelerate the development of ancillary institutions that promote the flow of information about firms. For instance, foreign banks may encourage the emergence of better rating agencies, accounting and auditing firms, and credit bureaus that acquire and process information. Similarly, foreign banks may improve information disclosure about banks themselves as foreign banks to attract customers by demonstrating their comparatively sound financial condition. Finally, as noted above, foreign bank entry may stimulate improvements in the supervisory and regulatory framework. This would (tautologically) improve incentives in the banking industry and thereby improve the quality of bank lending practices.

There have been country studies of the effects of liberalizing foreign bank entry restrictions. For example, McFadden (1994) finds that, in the case of Australia, domestic banks responded aggressively to liberalization. They improved their operations, invested in new technologies, and cut costs, such that foreign banks were less profitable and captured a much smaller share of the domestic market than many analysts expected. Overhead costs fell and individuals enjoyed better services than were available before Australia liberalized foreign bank entry. Bhattacharaya (1993) notes that enhanced foreign bank competition has forced lower commission fees in Turkey, e.g., fees on letters of credit fell from 1.5 percent to 0.5 percent, and fees on letters of guarantee fell from 4 percent to 1 percent following liberalization. Foreign banks can also directly improve banking

services. In Spain, foreign banks pioneered the commercial paper market, the swap market, and spurred the boom in credit cards and ATMs. This paper complements these country studies with systematic, cross-country empirical evidence and a case-study of Korea, which is presented in Section IV.

#### B. Foreign Banks and Domestic Banking Efficiency: Cross-Country Evidence

To investigate the connection between bank efficiency and the presence of foreign banks, we use bank-level accounting data from 80 countries over the period 1988-1995. The income statement and balance sheet data of about 7900 individual commercial banks in 80 countries are from the BankScope data base, which is described more fully in Claessens, Demirguc-Kunt, and Huizinga (1997). The data cover approximately 90 percent of bank assets in each country. The countries and the share of foreign banks in the domestic banking system are listed in Table 1. We use two variables to measure banking efficiency:

**Before tax profits/ta** = a bank's profits (before taxes) divided by total assets;<sup>6</sup>

**Overhead/ta** = a bank's entire overhead costs divided by total assets.

We interpret higher values of these measures as representing lower levels of efficiency. Holding other factors constant, high profits may reflect an absence of rigorous competition, large overhead costs may reflect a less efficient management and organizational system. These efficiency measure may also be influenced by cross-country differences in accounting standards. While recognizing that differences in accounting procedures may create "noise," we do not believe this biases the results in one direction or another.<sup>7</sup>

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<sup>6</sup> Before tax profits equals net interest income + non-interest income - overhead costs - loan loss provisioning.

<sup>7</sup> Low profitability may also reflect direct government interventions that reduce profits, but do not necessarily reflect low efficiency.

We now examine how foreign bank penetration influences domestic bank net interest margins, before tax profits, and overhead expenditures. Regressions 1-2 in Table 4 and 5 summarize the findings. The dependent variables are respectively: **before tax profits/ta** and **overhead/ta**. As noted earlier, we control for a variety of financial and macroeconomic factors, including the lagged value of the equity-asset ratio, the ratio of non-interest earning assets to total assets, the ratio of customer and short term funding to total assets, GDP per capita, output growth, inflation, and the real interest rate.<sup>8</sup> Table 3 estimates the equations in levels. Table 4 presents the results using differenced data. Differencing the data captures how domestic bank efficiency changes with alterations in foreign bank participation.

FOREIGN BANKS enters the before tax profits/ta and overhead/ta negatively and significantly in both the levels and differenced equations (Tables 4 and 5). As in the fragility regressions, FOREIGN ASSETS enters all the regressions negatively, though insignificantly. The data indicate that foreign bank entry -- *not* the share of foreign bank assets in total banking assets -- tends to spur competition and render national banking markets more efficient. Increased foreign entry forces domestic banks to eliminate excess overhead and accept lower profits. The major link between efficiency and foreign banks is associated with the number of foreign entrants, not with market share. This suggests that entry, per se, increases competition and efficiency.<sup>9</sup>

#### IV. Foreign banks and economic growth

##### A. Concepts

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<sup>8</sup> Customer and short-term funding equals demand, savings, and time deposits.

<sup>9</sup> There may be simultaneity issues associated with these regressions. These are likely to bias the results *against* our conclusions. Specifically, countries where domestic banks have big overhead expenditures and bloated profits are likely to attract foreign banks. This reverse causality would imply a positive relationship between foreign bank entry and domestic profits and overhead. Rather, we find a negative relationship; this suggests that the interpretation that foreign entry boost competition and domestic bank efficiency is most appropriate.

Foreign banks may influence long-run economic growth directly and indirectly. By bringing additional capital, energetically seeking profitable uses for these funds, exerting corporate control, and facilitating risk management, foreign banks may directly boost capital accumulation and the efficiency of resource allocation in ways that accelerate long-run growth. Foreign banks may also spur growth indirectly by intensifying competition. By contesting markets and sharpening competition, foreign banks raise the overall level of banking sector efficiency as demonstrated above. Thus, domestic banks provide better services; domestic banks become better at mobilizing savings, energetically seeking profitable uses for these savings, exerting corporate control, and easing risk management in ways that accelerate long-run growth.

#### B. Evidence: Direct Link

To examine whether foreign banks directly affect economic growth, we conducted a pure cross-sectional analysis using one observation per country. There are many methodological, statistical, and conceptual shortcomings associated with interpreting cross-country growth regressions as discussed in Levine and Zervos (1993). Also, in this exploratory investigation, we do attempt to control for issues of endogeneity.<sup>10</sup> Nonetheless, we use this methodology to provide some suggestive evidence.

The basic regression takes the form:

$$(2) \quad \text{GROWTH} = \alpha + \beta \text{FOREIGN} + \gamma \mathbf{X} + \varepsilon,$$

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<sup>10</sup> For work on the causal links between finance and growth, see Levine, Loayza, and Beck (1998) and Beck, Levine, and Loayza (1998).

where the dependent variable, *GROWTH*, equals real per capita GDP growth over the period 1980-1995, *FOREIGN* equals either *FOREIGN ASSETS* or *FOREIGN BANKS*, and *X* represents a matrix of conditioning information that controls for other factors associated with economic growth. To examine the sensitivity of the results, we experiment with different conditioning information sets.

We find no evidence that foreign banks directly influence long-run economic growth. Specifically, *FOREIGN ASSETS* and *FOREIGN BANKS* are not significantly associated with long-run growth. We experimented with various combinations of the conditioning information and could not find a significant, direct link between these measures of foreign bank participation and long-run growth.

### C. Evidence: Indirect Link

Next, we examine whether foreign banks might indirectly affect long-run growth. Since foreign bank entry influences the efficiency of the domestic banking system, we examine whether the efficiency of the domestic banking system is positively associated with long growth. Thus, we run the following pure cross-section regressions:

$$(3) \quad \text{GROWTH} = a + b\text{EFFICIENCY} + c\mathbf{X} + e,$$

where the dependent variable, *GROWTH*, equals real per capita GDP growth over the period 1980-1995, *EFFICIENCY* equals either the **overhead/ta** or **before tax profits/ta** measure of banking efficiency, and *X* is the same matrix of conditioning information discussed above. We seek to reduce the chances that equation (3) either omits an important variable or includes a select group of regressors that yields a favored result. We report the results with two conditioning information sets.

The *simple conditioning information set* includes the a constant, the logarithm of initial per capita GDP and initial level of educational attainment. The initial income variable is used to capture the convergence effect and school attainment is used to control for investment in human capital accumulation. The *full conditioning information set* plus measures of government size, inflation, the black market exchange rate premium, openness to trade, political stability (the number of revolutions and coups, the number of assassinations per thousand, and an index of civil liberties), and ethnic diversity (Easterly and Levine 1997).

The results of these regressions are presented in Table 6. Although there is not a strong relationship between growth and **before tax profits/ta**, the results demonstrate a robust negative link between **overhead/ta** and economic growth. This negative link between domestic bank inefficiency and growth remains strong and significant even when controlling for many other factors associated with economic performance. Although we do not investigate potential endogeneity issues, the data are consistent with the view that forces – such as foreign bank participation – that reduce bank overhead costs have a strong positive impact on economic growth.

The coefficients also suggest an economically large impact. For instance, a one standard deviation fall in bank overhead expenses as a share of total bank assets (1.94) implies that real per capita GDP growth would have been one percentage point faster ( $1.94 \times 0.54$ ). Similarly, if Mexico had the sample mean value of **overhead/ta** (3.5) instead of its own realized value (4.9), the results suggest that Mexico would have grown 0.8 percentage points faster over the last 15 years. These examples should not be taken literally, since the cross-country growth methodology does not yield estimates of exploitable elasticities. Instead, these examples are simply meant to illustrate that the relationship between domestic bank efficiency is economically meaningful. In sum, while we view the growth results as purely suggestive and in need of further investigation, the data imply a strong

positive link between domestic bank efficiency and growth, and foreign entry tends to boost domestic bank efficiency.

#### **IV. The Case of Korea**

Korea has importantly lowered entry barriers and restrictions on the operations of foreign banks, especially since the mid-1980s. This section reviews the Korea's experience with the liberalization of impediments to foreign bank activities. Our primary concern is whether Korea's experience conforms with the cross-country analyses presented above. We focus on the relationship between foreign bank entry and the efficiency of Korean banks.

##### **A. History of Deregulation of Foreign Bank Operations in Korea**

Table 7 summarizes changes in the laws governing foreign bank entry and operations in Korea since 1984. These changes reflect both a reduction of preferential treatment of foreign banks in some areas as well as a reduction of barriers to foreign bank activities in other areas. For instance, Korea requires banks to provide a certain percentage of credit to small and medium size enterprises. Initially, these requirements were less binding for foreign banks. Over the last 20 years, there has been an equalization of treatment. Similarly, initially foreign banks were provided with swap facilities with guaranteed yields, while domestic banks did not enjoy these benefits. This preferential treatment was gradually eliminated starting in 1986. Also, over this period, impediments to foreign banks were liberalized. Foreign banks have been granted access to the central bank rediscount window, restrictions on capital were eased, and foreign banks were allowed to establish multiple branches under the same conditions as domestic banks.

##### **B. Principal Components of Foreign and Domestic Bank Balance Sheets**



Table 8 presents information on the balance sheets of both domestic and foreign banks.

From table 8, we can see that *total assets* of foreign banks have been increasing at an annual *real* growth rate of 3.2 percent for the period while *total capital* of foreign banks operating in Korea has been increasing at an annual *real* growth rate of 13.6 percent, increasing more than four times during the last eight years. This higher *real* growth rate of capital can be explained by sound reinvestment of earnings and capital by the foreign banks (Kim, 1997).

Foreign banks' most important *source of funds* was the *inter-office account*<sup>11</sup> and this accounted for about 58 percent of the *total liabilities* in 1996. *Total liabilities* of foreign banks have been increasing by 8.7 percent per year during this period and most of the increase in *total liabilities* was financed by *foreign liabilities* (the share of foreign liabilities to total liabilities was 65 percent in 1996). For the whole period, the annual growth rate of *foreign liabilities* was 16.8 percent and this was higher in the later period (22 percent for 1991 - 1996)<sup>12</sup>. This reflects the increased liquidity in international capital markets since 1991 (IMF, 1996: CrossBorder Capital, 1997) and it contributed to the significant increase in the ratio of short-term debt<sup>13</sup> to total debt (Min, 1998). In contrast, *deposits in won currency* constituted only 2.1 percent of *total liabilities* in 1996 and they could acquire additional domestic funds for their operations through the sales of foreign currency, within stipulated limits, to the bank of Korea under swap agreements.

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<sup>11</sup> For domestic banks, annual growth rate of *total liabilities* was 18.0 percent (1988-1996) and most of the increase in total liabilities was financed by *borrowings in foreign currency*. While foreign banks annual growth rate of *borrowings in foreign currency* decreased from 33.4 percent (1988-1990) to 26.8 percent (1991-1996) that of domestic banks increased from 12.7 percent to 27.5 percent for the corresponding period. This resulted in increased foreign exchange risk exposure of domestic banks.

<sup>12</sup> Thailand, also, recorded high growth rate of *foreign liabilities* of deposit money banks during this period. The annual growth rate of *foreign liabilities* was 33.3 percent (1988-1990) and then it increased to 58.8 percent (1991-1996).

The major difference in *usage of funds* between foreign banks and deposit money banks lies in the share of *loans & discounts* out of *total assets*. The share for deposit money banks as a whole was some 40 percent throughout the period while that of foreign banks accounted for some 20 percent. This difference can be explained by the increased share of foreign banks in *loans in foreign currency* and *customer's liabilities on acceptance & guarantees* reflecting their competitiveness in these businesses.

### C. Foreign Bank Penetration

Foreign banks first arrived in Korea in 1967 when Chase Manhattan opened its first branch. Table 9 shows the change in number of foreign bank branches and offices over the last 30 years. The number of branches and volume of business expanded rapidly reflecting their relatively advantageous business circumstances vis-à-vis domestic commercial banks. By the end of January 1998, 68 foreign banks branches and 23 offices from 19 countries had a business presence in Korea and this figure changed little in the 1990s. With the expansion of business outside their traditional developed markets, banks from Australia, Canada and Pakistan have increased their presence in Korea. Foreign bank penetration as a share of total banks was 0.63 at the end of 1997 (52 foreign banks out of 82 deposit money banks).<sup>14</sup>

Foreign banks penetration in terms of *total assets* is reported in Line (7) of Table 8. Unlike the share of banks measure, according to the *total assets* criterion, foreign bank penetration has been decreasing from 9.4 percent in 1988 to 5.0 percent level by the end of 1996. Foreign banks' share of *domestic assets* was 5.0 percent in 1996, a figure smaller than the estimate (6 percent) of

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<sup>13</sup> Foreign capital regulation in Korea mandates the approval of long-term borrowing by the Ministry of Finance and Economy. Each year, the Ministry of Finance and Economy rationed planned total long-term borrowing to each bank. However, short-term borrowing was not regulated.

<sup>14</sup> This figure is different than that in Table 1 since BankScope data base only covers the largest banks.

Gelb and Sagari (1990), yet further indication of the non-dominance of foreign banks in domestic financial market. This is also consistent with Levine (1996).

#### D. Foreign and Domestic Banking Efficiency During Liberalization

Table 10 presents evidence on bank profitability, productivity, and non-performing loans over the period 1987-1996. Foreign banks clearly enjoy an advantage. Foreign banks achieve much higher return-on-assets (ROA) and return-on-equity (ROE), which may partially reflect the fact that foreign banks (1) make more loans per employee and earn bigger profits per employee than domestic banks, and (2) have few non-performing loans as a share of total loans. The huge gaps between domestic and foreign banks suggest that Korea's economy will importantly benefit from improvements in its banking system, which may be spurred by foreign bank entry.

Indeed, domestic banks in the 1990s seem to be responding positively to these competitive pressures. Specifically, non-performing loans as a share of total loans fell by 85 percent over the period 1987-1996, and loans per employee rose by 235 percent. Although the recent crisis in Korea reveal deep problems, recent experience also suggests that liberalization and competition offer great opportunities for Korea to improve the functioning of its domestic banking system and thereby promote further expansion during the coming decades. Nonetheless, the current weak state of Korea's domestic banking system suggests that now may *not* be the time for additional liberalization since greater foreign bank entry would put even greater pressures on domestic banks.

### V. Conclusions

Recent instability in world financial markets may make policymakers reluctant to ease liberalization restrictions on the entry and activities of foreign banks. This paper empirically addressed policymaker concerns regarding foreign banks. The data show that greater foreign bank

entry does not increase the fragility of the domestic banking system. Specifically, greater foreign bank activity does not increase the probability that a country will experience a banking crisis. Moreover, our analysis indicates that foreign bank entry tends to reduce the chances that a country will experience a crisis; foreign bank entry tends to boost financial stability.

We also examine the connections between foreign banks and domestic bank performance. The data indicate a strong positive association between foreign bank entry and the efficiency of domestic banks. We also find that this improvement in domestic bank efficiency translates into faster long-run economic growth. Thus, the data are consistent with the story that as barriers to foreign bank entry fall, the more competitive atmosphere spurs rapid improvements in domestic bank efficiency that positively influence economic performance. The particular case of Korea supports this conclusion. As restrictions on foreign banks fell, Korean banks responded by boosting the quality of their loan portfolios and raising productivity. While foreign banks are still much more efficient than Korean banks, the aggressive response by Korean banks suggests that the beneficial effects of competition will be felt in Korea in coming years.

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**Table 1. Share of Foreign Banks in Domestic Banking Systems in 1995**

A foreign bank is defined to have at least 50 percent foreign ownership. Figures reported are ratios of number of foreign banks to total number of banks and foreign bank assets to total bank assets in each country, respectively. \* denotes those countries included in the fragility analysis.

	No. of foreign banks in total	Foreign bank assets in total	Total number of banks		No. of foreign banks in total	Foreign bank assets in total	Total number of banks
Argentina	0.22	0.13	9	Lithuania	0.10	0.09	7
Australia*	0.31	0.05	26	Luxembourg	0.93	0.79	107
Austria*	0.30	0.50	10	Malaysia*	0.19	0.15	47
Bahrain	0.86	0.97	7	Malta	0.00	0.00	7
Belgium*	0.30	0.06	47	Mexico*	0.05	0.03	19
Bolivia	0.30	0.44	10	Morocco	0.50	0.48	8
Botswana	0.75	0.94	4	Nepal	1.00	1.00	3
Brazil	0.42	0.34	41	Netherlands*	0.45	0.05	20
Canada*	0.64	0.08	69	New Zealand*	0.88	0.92	8
Chile*	0.25	0.20	20	Nicaragua	0.08	0.08	12
China	0.00	0.00	5	Nigeria*	0.22	0.28	9
Colombia*	0.17	0.05	28	Norway*	0.05	0.01	19
Costa Rica	0.23	0.05	22	Oman	0.00	0.00	6
Cyprus*	0.29	0.11	7	Pakistan	0.31	0.16	15
Czech Rep.	0.60	0.51	15	Panama*	0.37	0.39	8
Denmark*	0.04	0.00	56	P. New Guinea	0.40	0.30	5
Dom. Rep.	0.08	0.03	12	Paraguay*	0.40	0.30	20
Ecuador*	0.40	0.50	5	Peru*	0.36	0.28	22
Egypt*	0.10	0.01	9	Philippines*	0.41	0.62	17
El Salvador*	0.25	0.31	4	Poland	0.36	0.16	28
Estonia	0.43	0.35	7	Portugal*	0.17	0.03	34
Finland*	0.00	0.00	11	Qatar	0.00	0.00	3
France*	0.25	0.10	95	Romania	0.14	0.01	7
Germany*	0.36	0.22	80	Russia	0.07	0.00	14
Greece*	0.56	0.84	16	S. Africa*	0.14	0.01	14
Guatemala*	0.00	0.00	24	Saudi Arabia	0.50	0.80	4
Haiti	0.00	0.00	3	Singapore*	0.32	0.62	19
Honduras*	0.33	0.21	3	Spain	0.37	0.39	38
Hong Kong	0.61	0.66	28	Sri Lanka*	0.14	0.14	7
Hungary	0.63	0.65	19	Swaziland*	1.00	1.00	3
India	0.00	0.00	5	Sweden*	0.06	0.00	18
Indonesia*	0.33	0.11	18	Taiwan	0.14	0.06	24
Ireland*	0.42	0.18	12	Thailand*	0.08	0.02	12
Israel*	0.09	0.02	22	Tunisia	0.43	0.45	7
Italy*	0.08	0.01	64	Turkey*	0.07	0.01	29
Jamaica*	0.50	0.50	10	U.K.*	0.26	0.16	70
Japan*	0.08	0.19	73	U.S.*	0.05	0.03	370
Jordan*	0.43	0.94	7	Venezuela*	0.06	0.02	17
Korea*	0.23	0.24	40	Yemen	0.00	0.00	3
Lebanon	0.60	0.68	5	Zambia	0.67	0.38	3



**Table 2. List of Crisis Episodes 1988-1995**

Country	Banking Crisis Dates
Finland	1991-94
Indonesia	1992-94
Italy	1990-94
Jordan	1989-90
Japan	1992-94
Mexico	1994
Nigeria	1991-94
Paraguay	1995
Sri Lanka	1989-93
Sweden	1990-93
Turkey	1991, 1994
Venezuela	1993

**Table 3. Foreign Bank Entry and Banking Crises**

Dependent variable takes the value 1 if there is a crisis and the value 0 if there is no crisis. Observations for the duration of the crises are omitted. Time-series cross-country data are pooled over the 1988-1995 time period. Standard errors are given in paranthesis.

	(1)	(2)	(3)	(4)
<b>Control Variables:</b>				
GROWTH	-.144** (.062)	-.199** (.084)	-.163*** (.064)	-.207*** (.083)
TOT CHANGE	-.175*** (.061)	-.186*** (.061)	-.157*** (.060)	-.171*** (.062)
DEPRECIATION		.048** (.022)		.045** (.021)
RL. INTEREST	.115*** (.040)	.108** (.046)	.116*** (.043)	.108** (.047)
INFLATION	.070*** (.025)	.013 (.038)	.070*** (.025)	.015 (.039)
M2/RESERVES	.014 (.026)	.029 (.024)	.012 (.024)	.025 (.023)
CREDIT GRO <sub>t-2</sub>	.039** (.019)	.041** (.020)	.043** (.020)	.044** (.021)
BANK/GDP		-.018 (.018)		-.019 (.017)
GDP/CAP	.037 (.064)	.065 (.087)	.031 (.058)	.067 (.076)
<b>Foreign Bank Entry:</b>				
FOREIGN ASSETS	-.016 (.015)	-.020 (.018)		
FOREIGN BANKS			-.041** (.020)	-.040** (.020)
<b>Past Crisis:</b>				
DURATION of last period	.258** (.132)	.290* (.157)	.319** (.150)	.336** (.169)
No. of Crisis	13	13	13	13
No. of Obs.	259	242	259	242
% correct	75	76	78	79
% crisis correct	62	54	69	54
model $\bar{R}^2$	28.42***	37.49***	32.13***	40.03***
AIC	95	88	91	85

\*, \*\*and \*\*\* indicate significance levels of 10, 5 and 1 percent respectively

**Table 4. Domestic Bank Performance and Foreign Bank Share**

The regression is estimated using weighted least squares pooling bank level data across 80 countries for the 1988-95 time period. Only domestic bank observations were used. Number of banks in each period is used to weight the observations. Regression also includes country and time dummy variables which are not reported. In column (1) dependent variable is before tax profits over total assets (Before tax profits/ta). In column (2) overhead/ta is the dependent variable which is defined as personnel expenses and other non-interest expenses over total assets. Foreign bank share is the number of foreign banks to total number of banks. Standard errors are given in parantheses.

	(2) Before tax profits/ta	(3) Overhead/ta
Foreign bank share	-.027*** (.011)	-.034*** (.008)
Equity/ta <sub>t-1</sub>	.077*** (.007)	.079*** (.005)
Non-interest earning assets/ta	-.061*** (.008)	.050*** (.006)
Customer & short term funding/ta	.006* (.004)	.002 (.003)
Overhead/ta	-.293*** (.019)	
Gdp/cap	.010*** (.001)	-.003*** (.001)
Growth	.018* (.011)	.033*** (.008)
Inflation	.030*** (.008)	.036*** (.006)
Real interest	.025*** (.008)	.022*** (.006)
Adj. R <sup>2</sup>	.19	.48
N. of obs.	4618	4618

\*, \*\* and \*\*\* indicate significance levels of 10, 5 and 1 percent respectively.

**Table 5. Foreign Bank Entry and Change in Domestic Bank Performance**

The regression is estimated using weighted least squares pooling bank level data across 80 countries for the 1988-95 time period. Only domestic bank observations were used. Number of banks in each period is used to weight the observations. Regression also includes country and time dummy variables which are not reported. In column (1) dependent variable is the the one period change in before tax profits over total assets (Before tax profits/ta). In column (2) it is the one period change in overhead/ta variable which is defined as personnel expenses and other non-interest expenses over total assets. Foreign bank share is the ratio of number of foreign banks to total number of banks. All independent variables are in first differences. Standard errors are given in parantheses.

	(1) Before tax profits/ta	(2) Overhead/ta
Foreign bank share	-.028*** (.010)	-.015*** (.005)
Equity/ta <sub>t-1</sub>	-.002 (.012)	.060*** (.006)
Non-interest earning assets/ta	-.014 (.010)	.061*** (.005)
Customer & short term funding/ta	.026*** (.007)	-.023*** (.004)
Overhead/ta	-.597*** (.027)	
Gdp/cap	.001 (.002)	-.002** (.001)
Growth	.006 (.009)	.016*** (.005)
Inflation	.013** (.007)	.016*** (.004)
Real interest	.016*** (.007)	.015*** (.004)
Adj. R <sup>2</sup>	.15	.12
N. of obs.	4592	4592

\*, \*\* and \*\*\* indicate significance levels of 10, 5 and 1 percent respectively.

**Table 6. Bank Efficiency and Economic Growth: 1980-1995****Dependent variable: Real Per Capita GDP Growth, 1980-95**Regression Set #1: simple conditioning information set

Explanatory Variable	coefficient	standard error	t-statistic	P-value	Number of Observations	R-square
Overhead/ta	-0.697	0.146	-4.789	0.000	60	0.345
Before tax profits/ta	-0.019	0.272	-0.070	0.944	60	0.052

Regression Set #2: full conditioning information set

Explanatory Variable	coefficient	standard error	t-statistic	P-value	Number of Observations	R-square
Overhead/ta	-0.543	0.115	-4.742	0.000	53	0.599
Before tax profits/ta	-0.363	0.276	-1.313	0.196	53	0.465

Simple conditioning information set: logarithm of initial income per capita and schooling

Full conditioning information set: simple set, plus indicators of revolutions and coups, civil liberties, political assassinations, size of government, inflation, black market premium, and openness to trade.

**Overhead/ta** - personnel expenses and other non-interest expenses divided by total assets.**Before tax profits/ta** - before tax profits over total assets.

**Table 7. Major Deregulation on Foreign Banks in Korea**

date	Regulation and Deregulation
1. Entry	O. Approval of Monetary Board recommended by the Superintendent of Banks (Article 37-2 to 37-7 of the General Banking govern the legal status of foreign banks branches in Korea) unless the country of origin has entry barriers for Korean banks.
2. 1984	O. Allowed to join the Korean Federation of Banks
3. 1985	O. Monetary Board determined that foreign banks are subject to the SME basket ratio of 25 % O. Permitted to engage in trust business and make use of the rediscount facilities at BOK for short-term export financing
4. 1986	O. SME basket ratio was increased to 35 % for foreign banks branches that make use of the central banks rediscount facilities for commercial bills O. Granted access to the central bank rediscount window on the same condition as domestic banks and permitted to issue negotiable CD O. Gradually reduced foreign banks swap facilities and lowered their guaranteed yield on swap transactions and swap transactions were forbidden to foreign branches established 1988
5. 1988	O. Citibank and Chase Manhattan Bank joined Clearing House and Foreign banks branches have been able to borrow funds from the BOK to finance shortage of reserve requirement or settlement funds.
6. 1989	O. Upper limit on their Capital A fund was raised to 12 billion won
7. 1991	O. Restriction on multiple branching of foreign banks was abolished and they could establish multiple branches under the same conditions of domestic banks and class A fund of foreign bank branch was removed. O. Upper limit on Capital A fund was abolished. O. Impartial brokerage system in call market
8. 1996	O. Lowered ceilings on swap facilities by further 10 % compared with that of the end of 1995

Source, BOK, Banking Supervision in Korea, 1996

Table 8. Principal Accounts of Foreign and Deposit Money Banks

YEAR	1989	1990	1992	1994	1995	1996
<b>ASSETS</b>						
<b>Deposit Money Banks</b>						
(1) Domestic Asset	98840	151616	201073	260540	308694	365381
(1-1) Securities	8465	14393	21718	35052	45089	56023
(1-2) L & D	48805	74029	102797	138560	152478	177184
(1-3) = (1-2)/(3)	39.1	40.1	41	42.9	40	39.3
(1-4) Loans in for. cur	5698	8278	10305	13522	17654	23009
(2) Foreign Assets	5824	6829	10174	16514	21542	28626
(2-1) For. Cur. & Bills	3818	5124	7517	11460	15268	20090
(3) Total Assets	124708	184553	251321	322956	379517	451180
<b>Foreign Banks</b>						
(4) Domestic Assets	6071	7333	10437	11865	13829	18139
(4-1) Securities	287	238	482	931	1479	1888
(4-2) L & D	2711	3114	4012	3367	3131	3431
(4-3) = (4-2)/(6)	23.1	20.8	23.7	20.3	16.1	13.9
(4-4) Loans in for. cu	1945	1816	2268	2605	2300	4839
(5) Foreign Assets	593	863	1108	1406	1876	2305
(6-1) For. Cur. & Bills	545	786	932	1260	1649	1978
(6) Total Assets	11745	14980	16924	16541	19425	24694
(7) = (6)/(3)*100	9.41	8.12	6.73	5.12	5.12	5.47
<b>LIABILITIES and CAPITAL</b>						
<b>Deposit Money Banks</b>						
(8) Domestic Liabilities	91332	138031	183825	239642	282960	332230
(9) Foreign Liabilities	7092	7305	11572	16756	24513	36672
(10) Total Liabilities	118469	171444	235471	302300	356754	426075
(11) Total Capital	6239	13109	15851	20656	22762	25105
<b>Foreign Banks</b>						
(12) Domestic Liabilities	1905	2915	3913	2937	3082	3231
(12-1) Deposits	542	828	616	346	304	457
(13) Foreign Liabilities	4036	4172	6073	8377	10059	13955
(13-1) Borrowings in for. cur.	206	367	422	1033	1154	1382
(13-2) Interoffice	3749	3749	4707	5525	8726	12318
(14) Total Liabilities	11020	13870	15659	12860	16861	21436
(15) Total Capital	723	1109	1302	1750	2564	3258

Source: Bank of Korea, Monthly Bulletin, various issues

Unit: line (1-3), (4-3) and (7) are in percent, all other figures are in billion Korean won.

**Table 9. Number of Foreign Branches and Offices in Korea**

year	65- 75	76- 80	81- 90	199 1	199 2	199 3	199 4	199 5	199 6	199 7	<b>Total</b>
<b>Branches</b>											
Opened	9	24	44	6	5	2	1	0	0	5	96
Closed	0	0	8	5	2	1	3	1	4	4	28
<b>Total (A)</b>	<b>9</b>	<b>24</b>	<b>36</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>-2</b>	<b>-1</b>	<b>-4</b>	<b>1</b>	<b>68</b>
<b>Offices</b>											
Opened	9	17	40	5	2	4	0	2	1	3	83
Upgraded	2	5	28	3	1	1	1	0	0	3	44
Closed	0	0	7	3	1	2	0	0	2	1	16
<b>Total (B)</b>	<b>7</b>	<b>12</b>	<b>5</b>	<b>-1</b>	<b>0</b>	<b>1</b>	<b>-1</b>	<b>2</b>	<b>-1</b>	<b>-1</b>	<b>23</b>
<b>Total (A+B)</b>	<b>16</b>	<b>36</b>	<b>41</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>-3</b>	<b>1</b>	<b>-5</b>	<b>0</b>	<b>91</b>

Source: Bank Supervisory Office, Statistics on Bank Management, 1997



**Table 10. Efficiency Indicators of Foreign Banks and Domestic Banks**

<b>DOMESTIC BANKS</b>										
	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>ROA1)</b>	0.23	0.43	0.71	0.77	0.73	0.72	0.62	0.62	0.38	0.32
<b>ROE 2)</b>	4.33	6.13	6.65	6.28	6.58	6.69	5.9	6.09	4.19	3.8
<b>PPE3)</b>	1.6	3.7	6.6	8.7	8.8	10.4	10.5	11.8	7.9	7.4
<b>LPE4)</b>	491	513	569	677	758	928	1054	1250	1414	1635
<b>EXPE5)</b>	12.9	14.5	16.6	19.1	22.1	26.8	30.1	35.5	41.9	48.8
<b>NPL6)</b>	5.4	5	3.1	2.1	1.8	1.7	1.8	1	0.9	0.8
<b>FOREIGN BANKS</b>										
	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>ROA1)</b>	NA7)	NA	1.82	1.38	1.51	1.47	1.21	1.39	1.24	1.61
<b>ROE2)</b>	NA	NA	15.56	12.26	13.26	13.33	9.55	10.96	10.28	12.51
<b>PPE3)</b>	NA	NA	53	47	65	75	62	78	88	142
<b>LPE4)</b>	NA	NA	1720	1683	2208	2528	2142	2181	2346	2734
<b>EXPE5)</b>	NA	NA	44	50	54	56	64	75	73	86
<b>NPL6)</b>	NA	NA	NA	NA	NA	0.87	0.81	0.5	0.2	0.08

Source: Bank Supervisory Office, Statistics on Bank Management, various issues.

Note:

- 1) Return on Assets: Trust account excluded
- 2) Return on Equity
- 3) Profit per Employee in million Korean won.
- 4) Loans per employee in million Korean won.
- 5) Expenses per Employee in million Korean won.
- 6) Ratio of non-performing loans to total loans.
- 7) NA: not available.

Finally, foreign bank subsidiary's credit growth is influenced by the health of the parent bank. Keywords: foreign banks, transition economies, credit growth, financial stability JEL codes: C23, F36, G21, P34. A better understanding of these issues is of special policy relevance for those countries that still have to decide whether to open up their banking sectors for foreign competition. The remainder of this paper is structured as follows. However, efficiency gains may be (partly) offset if a trade-off between banking efficiency and banking stability is present. Unfortunately, the strand of empirical literature that goes into the implications of foreign bank entry for host country financial stability is rather limited. This shows that foreign exchange illiquidity alone can result in bank runs which would then lead to the collapse of the currency regime (see also Section 4 below). In the empirical literature, Kaminsky and Reinhart (1999) have found that banking crises are a leading indicator of currency crises which is consistent with (but not conclusive evidence of) the former causing the latter. This type of analytical framework, linking together financial efficiency and stability with the system's infrastructure, warrants further theoretical analysis. The Bank of England publishes a six-monthly Financial Stability Review (FSR) which contains a summary assessment of current and prospective risks to financial stability in the United Kingdom and internationally. Large foreign banks, if permitted to compete in domestic retail and business banking markets, can provide an effective competitive counterweight to large domestic banks. These include protection of depositors and resolution processes for large banks in financial distress. Since these issues would become more pressing were large Australian banks to merge, they also warrant attention prior to any review of bank merger restrictions. Unfortunately, should a review of bank merger restrictions be warranted, there is relatively little policy guidance to be gained from either theory or evidence for countries such as Australia with high bank concentration ratios.

Second, allowing greater foreign bank presence tends to enhance the efficiency of the domestic banking system. In turn, better-developed banks spur economic growth primarily by accelerating productivity growth. Thus, international financial integration can promote economic development by encouraging improvements in the domestic financial system. Copyright 2001 by Blackwell Publishing Ltd. Opening to Foreign Banks: Issues of Stability, Efficiency, and Growth. Asli Demirguc-Kunt, Ross Levine, Hong-Ghi Min. 1998. Issues of Stability, Efficiency, and Growth. Asli Demirguc-Kunt, Ross Levine, and Hong-Ghi Min\*. July 1998. Abstract. This paper evaluates whether foreign bank activity (i) increases the likelihood of suffering a banking crisis, (ii) improves the efficiency of domestic banks, and (iii) accelerates long-run economic growth. Using bank-level data across a broad cross-section of countries, we find foreign bank participation (1) lowers the probability that a country will experience a banking crisis, (2) lowers overhead costs and profits of domestic banks, and (3) accelerates overall economic growth. 2. Foreign banks improve the efficiency of the domestic banking system. Countries where foreign banks play a larger role tend to have more efficient domestic banks, that is.