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Does Foreign Ownership Contribute to Sounder Banks in Emerging Markets? The Latin American Experience

Jennifer S. Crystal, B. Gerard Dages and Linda S. Goldberg

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Abstract

Foreign bank entrants into emerging markets are usually thought to improve the condition and performance of acquired institutions, and more generally to enhance local financial stability. We use bank-specific data for a range of Latin American countries since the mid-1990s to address elements of this claim. Across the seven largest countries, we find that the financial strength ratings of local banks acquired by foreign entities generally show a slight improvement relative to their domestic counterparts. Our more in-depth case studies of Chile, Colombia, and Argentina do not indicate striking differences in health between larger foreign and domestic retail-oriented banks (although state banks are noticeably weaker). However, foreign banks often have higher average loan growth, higher average provisioning expense, and greater loss-absorption capacity. These results suggest that foreign ownership may provide important positive influences on the stability and development of emerging market banking systems.

JEL codes: F3, F4

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I. Introduction

Over the latter half of the 1990's, foreign banks significantly increased their ownership shares of emerging market banking systems. This trend reflects a range of factors, perhaps most notably the need for recapitalization of local banking sectors in the wake of crises, but also broader market trends of consolidation, integration, privatization, and liberalization. Increased foreign ownership of emerging market banking systems is particularly striking in Latin America and Eastern Europe, where foreign banks now account for 50 percent or more of system assets in a number of countries. These structural changes could portend significant implications for domestic financial intermediation.

Empirical analysis of the effects of broad foreign participation in emerging market banking systems has been relatively limited, however, which in part reflects the recent timing of these developments. A number of recent studies focus on the systemic bank efficiency effects associated with the entry of foreign banks and the resulting increase in competition for domestic banking institutions. In the Latin American context, Martinez-Peria and Schmukler (1999) have concluded that foreign bank entry has been associated with both lowered profit margins and increased efficiency of local banks.¹

A second line of analysis considers differences in lending patterns across domestically owned and foreign-owned banks operating within emerging markets. In a study of Argentina and Mexico, Dages, Goldberg and Kinney (2000) show that private foreign banks and private domestic banks had similar lending activities in the 1990s, especially when financial condition was comparable. Foreign banks tended to show stronger and less volatile loan growth, potentially reflecting a more diversified funding base. The finding that foreign banks are relatively stable lenders to emerging markets is supported by a recent analysis of the behavior of international claims by individual U.S. banks (Goldberg 2001). These banks have not been particularly volatile lenders with respect to emerging markets. Indeed, the international claims of U.S. banks generally are considerably more sensitive to U.S. macroeconomic fundamentals than to emerging market fundamentals. Similar types of conclusions on lending are expressed in Peek and Rosengren (2000) and Palmer (2000), who find that foreign bank lending to Latin

¹ See related analyses by Burdisso, D'Amato, and Molinari (1998); Claessens, Demirguc-Kunt, and Huizinga (1998); and Clarke, Cull, D'Amato, and Molinari (1999).

America was not characterized by “cutting and running” during recent crises in emerging markets, although cross-border claims declined relative to local claims.

Whether broader strategic and operational differences exist across foreign and domestically owned banks in emerging markets remains an open issue. In this paper, we look for discernable differences between foreign and domestic banks in terms of financial condition and performance.² We focus on trends in Latin American banks in the late 1990’s, a period characterized by not only substantial foreign presence, but also by cases of significant macroeconomic stress. Our approach is more of an analytical review of relative changes in bank condition than an evaluation of the impact of foreign bank entry on the condition of domestic banks.

After briefly reviewing trends in foreign bank ownership in Latin America, we undertake two related analyses using annual data for the mid-1990s through 2000. First, we examine a broad indicator of institutional strength, namely, Moody’s Bank Financial Strength Ratings (BFSRs), for three categories of banks (foreign, private domestic, and government) in seven countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela). Second, we narrow the analysis to Chile, Colombia, and Argentina, using detailed data drawn from individual bank balance sheets in order to more finely compare specific aspects of bank condition (that is, liquidity, asset quality, earnings, and capital adequacy) across types of banks during recent periods of financial stress. Our analysis focuses entirely on retail-oriented banks.

We conclude that the condition and performance of foreign banks are not systematically different from their privately owned domestic counterparts in the countries examined, although both are generally superior to government-owned entities. However, the broad measure of financial strength ratings does provide some evidence that local banks acquired by foreign entities fared marginally better than those institutions that remained under domestic control. Our more detailed evaluation of bank condition in three countries yields more interesting results. Foreign banks, particularly those with longer-standing in-country operations, had consistently stronger loan growth, on average, than private domestic banks. Foreign banks established through recent acquisitions undertook more defensive actions and posted the lowest loan and deposit growth rates. We observe more aggressive loan provisioning and higher loan recovery

² Banks are considered to be foreign if they are majority owned by foreign shareholders, or if foreign shareholders exercise effective management control.

rates by foreign banks across-the-board. Their more proactive recognition of losses adversely affected foreign banks' profitability indicators, although risk-based capital ratios at foreign banks remain above those of private domestic banks. These tendencies may indicate that foreign banks are more willing to tolerate, or can better afford, lower returns in the near term for the sake of building longer-term institutional strength. Finally, foreign banks tended to maintain greater asset liquidity and relied less on deposit financing.

The lack of strong differences in foreign and private domestic bank condition may suggest there is competitive space for both types of institutions. It may also reflect efforts in the three countries to improve supervision and regulation, promote increased consolidation, and progressively weed out the weakest players. Specific findings on foreign bank behavior, namely, stronger credit growth, more aggressive provisioning behavior, and higher loss-absorption capacity, suggest that foreign ownership can impart important stabilizing influences on domestic banking systems in emerging markets.

II. Trends in Foreign Bank Ownership in Latin America

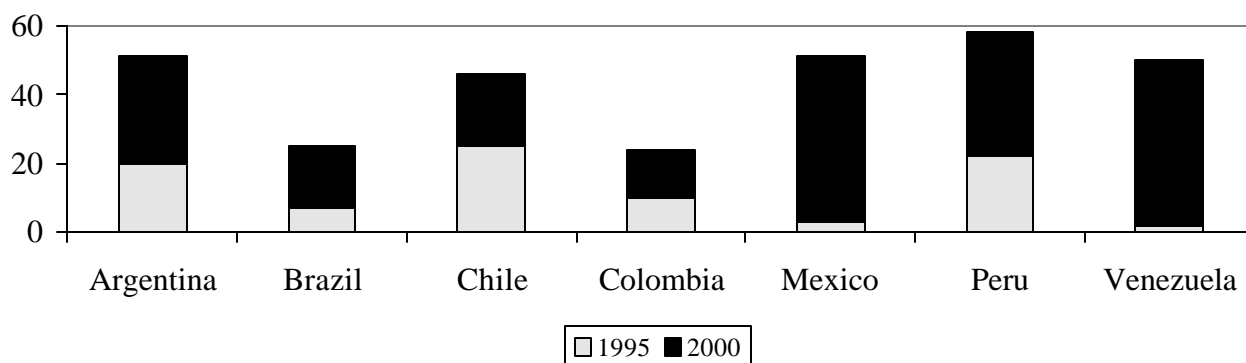
Prior to the 1990's, very few foreign banks were present in Latin America, and foreign ownership shares of domestic financial systems were low, reflecting a generally closed regulatory environment for foreign investment in the sector. Domestic financial systems were also generally fragmented, composed of a large number of financial institutions (including a number of marginal players) and a substantial state bank presence at the federal and regional levels.

Attitudes toward foreign participation in domestic financial sectors evidenced a dramatic shift following a series of banking crises in the mid-1990's. The need for substantial recapitalization of a number of institutions, as well as for structural consolidation and rationalization of the state sector, led to significant liberalization of regulatory limitations on foreign bank ownership. The sale of intervened institutions, privatizations of state banks, and some recapitalization efforts of remaining banks triggered a substantial increase in the level of foreign bank ownership in regional financial institutions.

Large-scale acquisitions began in 1995, with foreign banks acquiring controlling stakes in a number of the region's largest private banks, particularly those with a strong national or regional retail franchise. As a result, the structure of bank ownership in Latin America has

changed dramatically over the second half of the decade. Foreign banks now control majority shares in nearly all of the larger Latin American financial systems, with the important exceptions of Brazil and Colombia (See Chart 1).³

Chart 1: Foreign Share of Latin American Banking System Assets
(Percent of System Assets, 1995 and 2000)

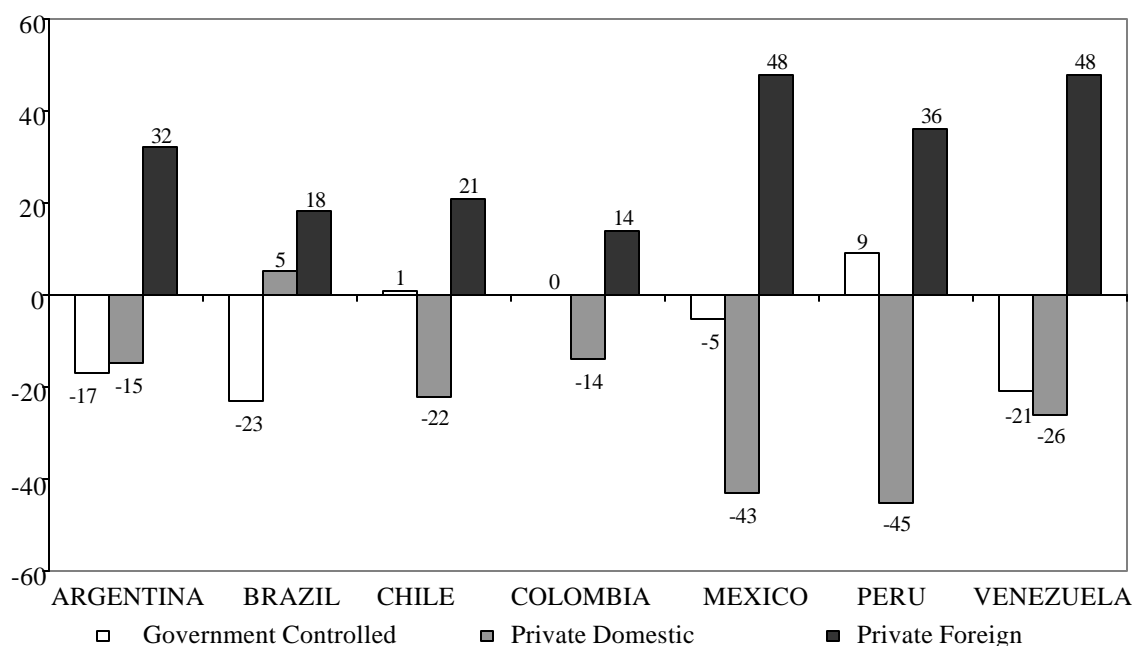


Source: Authors' calculations, based on statistical information from local bank regulators.

This increasing foreign bank presence has reduced both private and public domestic ownership shares throughout the region. As shown in Chart 2, foreign entry largely displaced private domestic banks in Chile, Colombia, Mexico, and Peru. In other countries where public sector banks have historically played a more significant role in the credit intermediation process, such as in Brazil, foreign entry coincided with large-scale privatization efforts. In countries like Argentina and Venezuela, foreign banks increased market share via both significant privatizations of state assets and the purchase of sizeable domestic banks from private shareholders.

³ As shown by Peek and Rosengren (2000), data on local exposures of foreign banks understates overall exposures due to the presence of direct cross-border lending.

Chart 2: Change in Asset Ownership Share of Banking in Latin America
(Percent of System Assets) 1995, 2000



Source: Authors' calculations, based on statistical information from local bank regulators.

Liberalization of foreign entry and a renewed commitment to privatizing inefficient public sector banks were only two components of broader financial sector reforms undertaken in the region in the latter half of the 1990's. In a number of countries, these structural reforms were bolstered by the introduction of deposit insurance, the liquidation or consolidation of nonviable entities, and the dedication of substantial resources to strengthening supervisory oversight and the regulatory framework. A number of measures were implemented to enhance prudential supervision and regulation, including the establishment of higher capital requirements, more stringent loan classification and provisioning standards, and increased disclosure requirements.

In summary, regional financial systems experienced a dramatic transformation in the second half of the 1990's. The domestic banking environment underwent a marked consolidation and a significant change in the competitive landscape. Since many of these changes are relatively recent, the full effects of this transformation may not yet be evident. Moreover, recent episodes of weak macroeconomic conditions have placed additional pressures on bank balance sheets, limiting lending activities and potentially constraining observed

differences between foreign and domestic banks. The initial strength of market participants and their capacity to respond to heightened competition will be important determinants of the future evolution of domestic financial systems.

III. Financial Institution Strength

Financial institution strength is usually thought of both in quantitative terms, namely a bank's intrinsic financial condition as reflected in its capital, reserves, asset quality, earnings and liquidity, and in qualitative terms, as evidenced in the underlying quality and effectiveness of bank management, internal controls, and risk management policies and practices. The soundness of financial institutions is founded on a strong balance sheet and strong management; significant deficiencies in either element generally suggest medium-term vulnerability.

Foreign ownership of domestic banks in emerging markets generally is argued to increase overall financial institution strength both quantitatively and qualitatively. Foreign banks are viewed as providing greater access to capital and liquidity and bolstering balance sheet strength. The knowledge, skill, and technology transfer that accompany foreign bank entry are expected to contribute to a stronger control and risk management environment. More broadly, foreign bank presence in emerging market financial systems is said to contribute to an improved financial system infrastructure by encouraging higher standards in auditing, accounting and disclosure, credit risk underwriting and reserving, and supervision.

However, the altered competitive environment may exert pressure on domestically owned banks, as documented in Martinez-Peria and Schmukler (1999). If foreign banks "cherry-pick" the lower risk clientele from the domestic banks, then the overall asset quality and earnings of domestic banks could decline. The implications for domestic bank financial strength presumably will depend on initial conditions, the overall regulatory environment, and the extent to which domestic banks take measures to retain competitiveness.

A. The CAMEL Framework. The intrinsic strength of a bank is usually evaluated based on a CAMEL framework, which consists of individual assessments of five core aspects of a bank's financial condition and performance: **C**apital Adequacy, **A**sset Quality, **M**anagement, **E**arnings, and **L**iquidity. This framework is sometimes modified to include other aspects of a bank's condition or performance. The CAMELS framework, for example, which is employed

by federal and state bank regulatory agencies in the United States, also evaluates a bank's Sensitivity to market risk, while the CAMELOT framework includes individual components for assessing **O**perational controls and **T**echnology.⁴ Under such frameworks, individual components are typically evaluated on a rating scale. These individual ratings are then aggregated to arrive at a composite ranking of the institution, which usually reflects differential emphasis on individual components, and not a simple average. Box 1 provides an abbreviated summary of factors that are considered in undertaking a CAMEL analysis and the possible implications of foreign ownership for individual CAMEL components.

| Box 1: CAMEL Ratings | | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Components of Ratings | Possible Implications of Foreign Ownership |
| Capital Adequacy | Compliance with regulatory standards; Adequacy given nature/level of risks, and future expansion plans; Quality of bank capital. | Improved access to and increased diversification of bank capital, leading to stronger and more stable capital levels. |
| Asset Quality | Creditworthiness of bank loans and investments; Adequacy of credit policies and procedures; Adequacy of loan loss reserve policies and levels; Level of impaired assets to capital and reserves. | Improved credit underwriting and administration leading to lower non-performing loan levels and higher reserve coverage of NPLs. |
| Management | Fitness and experience levels; Adequacy of strategic and operating plans; Risk management and control environment; Succession planning. | Secondment of management from head office, coupled with risk management and internal control practices closer to international norms, leads to better corporate governance. |
| Earnings | Quantity and quality; Diversification; Sensitivity to market risk. | Wider variety of products and services, stronger corporate governance, and potentially lower funding costs, leads to higher and more stable bank earnings. |
| Liquidity | Adequacy of asset/liability management policies and procedures; Appropriate level of asset and liability liquidity; Diversification of funding sources; Contingent funding plans. | Foreign bank access to parent bank liquidity and international funding markets, in combination with a higher credit standing of the parent and more sophisticated balance sheet management techniques, leads to better liquidity management. |

⁴ Related issues are covered in Barth, Caprio and Levine (2001), along with a discussion of a new country-specific database on regulation and supervision of banks around the world.

We now turn to the data to determine whether domestic and foreign banks in Latin America exhibit significant differences on a number of indicators of bank balance sheet strength. We first analyze differences using ratings of institutional strength provided by Moody's and then assess possible differences following a CAMEL-based framework.

B. Quantitative Differences in the Financial Condition of Domestic and Foreign Banks in Latin America. One broad indicator of the soundness of a bank is its Moody's Bank Financial Strength Rating ("BFSR"). BFSRs reflect Moody's evaluation of the intrinsic financial strength of a bank on a scale of A-E, with A representing the highest rating, without regard for prospective parent or government support.⁵ The exclusion of support is useful in that the BFSR better compares the basic health of domestic and foreign banks: it filters out possible support of domestic banks by the government or support of foreign banks by the parent. Moreover, BFSRs are viewed as providing a relatively uniform metric over time.

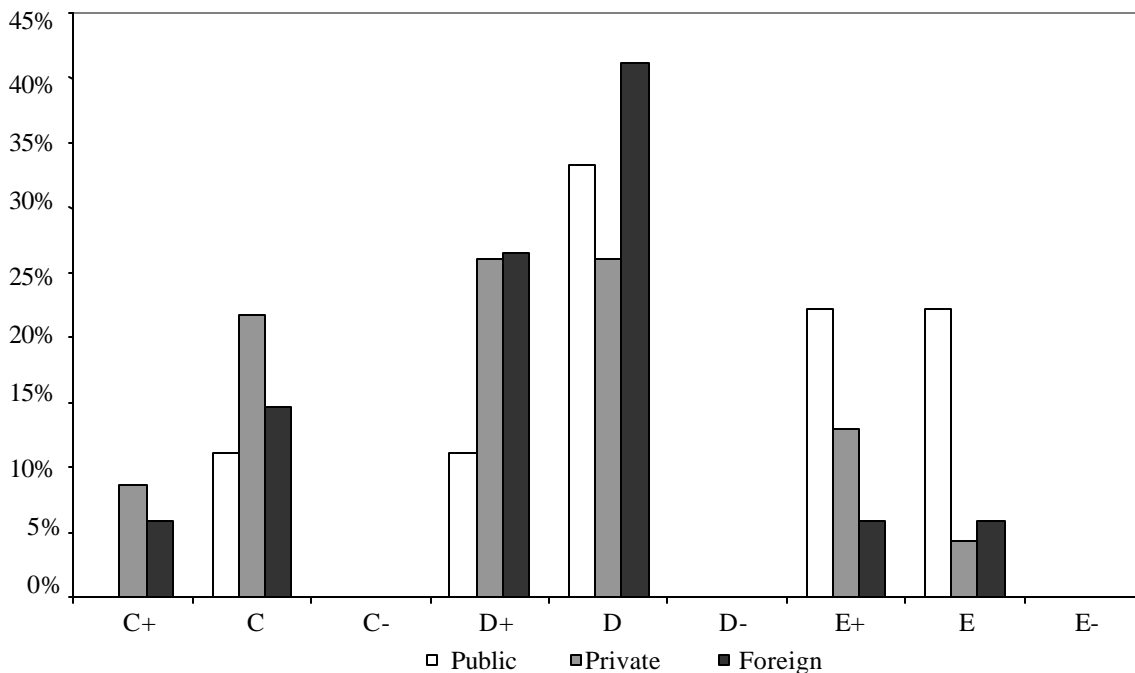
One of the main limitations of BFSRs as a metric of soundness is their timeliness. The administrative process of assigning or revising ratings may cause a lag in adjusting ratings to reflect changes in underlying institutional condition. Additionally, BFSRs cover only a subset of banks in a given country, although they tend to include the largest institutions. Finally, BFSRs only indicate the general health of an institution; they do not identify specific areas of strength or weakness, such as capital or asset quality.

We calculated the average asset-weighted BFSRs for seven Latin American countries, based on sixty-seven rated foreign and domestic banks. Between 1995 and 2001, the average ratings declined for four of the countries (Argentina, D+ to D; Colombia, C to D; Peru, C- to D; and Venezuela, D+ to D), improved for one country (Brazil, D to D+), and either fluctuated or remained unchanged for the other two countries (Mexico, D+ to D- to D; and Chile, C throughout). Historically, no Latin American bank has been rated higher than a C+ (considered by Moody's as good) largely as a result of broad environmental vulnerabilities, particularly in the underlying economies and legal and regulatory infrastructures.

⁵ Ratings categories are defined by Moody's as follows: A ("exceptional"); B ("strong"); C ("good"); D ("adequate"); and E ("very weak"). Distinctions among banks are also made by the assignment of pluses and minuses to bank ratings.

Chart 3 breaks out the current average BFSR ratings across ownership categories. Public bank ratings are clearly skewed toward the lower end of the rating scale, while private domestic and foreign banks have similar proportions of ratings in the D or higher range.

Chart 3: Share of Rated Banks by BFSR Values, 2001



Source: Authors' calculations, based on Moody's rating data.

These data are useful for comparing changes in the ratings of foreign and domestic banks over time. The fact that a large number of rated banks (twenty-eight out of sixty-seven) were acquired by foreigners between 1995 and 2001, creates an opportunity to consider the evolution of the ratings of these banks, both in an absolute sense and relative to other banks at similar points in time. Since banks were acquired at different dates, we date the acquisition year as $T=0$ and consider the rating changes observed within one, two, three, four, or five years after the acquisition event. We first analyze the path of actual changes in ratings in the aftermath of foreign acquisition of a domestic bank. We then generate a measure of relative ratings changes in which we adjust the ratings changes of a bank for country and year effects that influence all other banks within a country. For example, the relative ratings changes of an Argentine bank acquired in 1997 are the bank's actual ratings changes in each year through

2000, minus an unweighted average of the ratings changes of all of those Argentine banks that were rated in 1997 and that can be considered a comparable cohort of institutions.

We compute these ratings paths for banks in each country, as well as an average across countries (unweighted by bank or country size) of the relative ratings changes of acquired banks. The main patterns of ratings results averaged across banks in all seven countries are captured by the cross-country summaries shown in Figure 1, Panels A and B. Each unit on the vertical axis represents a single ratings notch, for example a move from D to D+ or from C- to C. The dots in the figures represent the average ratings change across all foreign-acquired banks at each of their post-acquisition years. The vertical dashes extending above and below these dots are the maximum and minimum ratings changes observed for any bank at the specified year after acquisition. The right-most entry in these figures, denoted cumulative, represents the average of total changes in ratings for acquired banks across their entire post-acquisition history.⁶

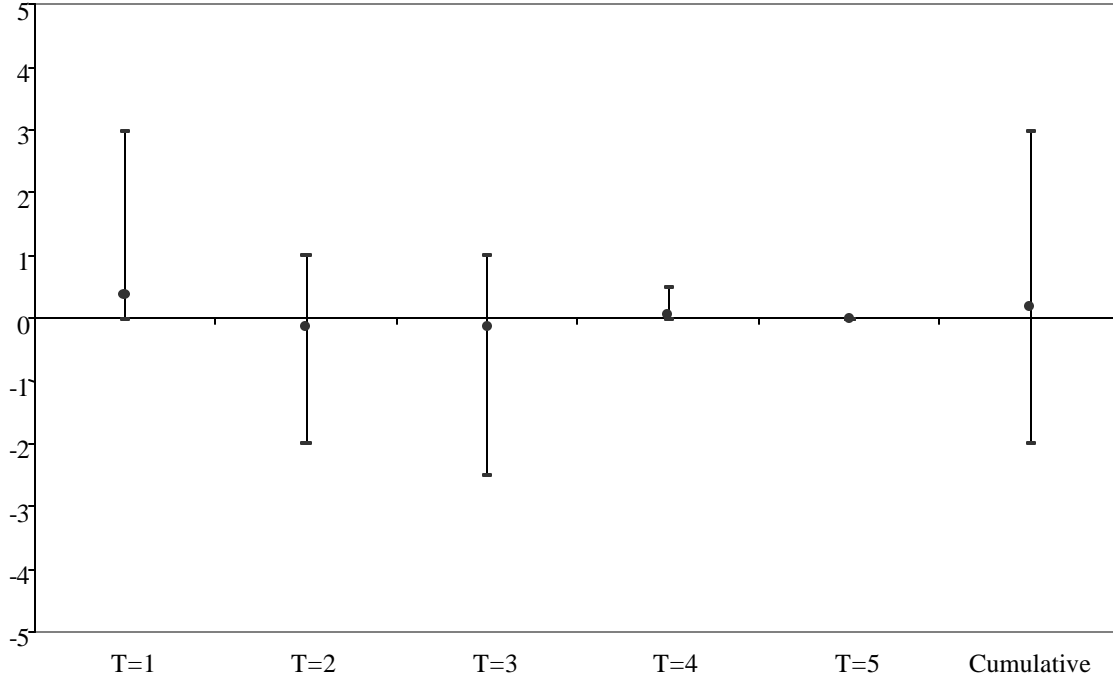
Figure 1 Panel A shows that the actual ratings changes of acquired banks within one year of acquisition were either positive (and as high as three notches) or nonexistent. The average change in bank ratings in the first post-acquisition year is a small positive number, reflecting the fact that very few acquired banks had any immediate change in their ratings. Similarly, mean ratings changes were close to zero in all subsequent years, although isolated cases of acquired bank upgrades or downgrades are found in the second and third years after acquisition.⁷ The cumulative entry shows the range of total ratings changes of the acquired banks in their entire post-acquisition histories. The basic lesson is that the ratings changes of domestic banks purchased by foreign banks were, more often than not, zero.

⁶ “Cumulative” does not reflect the sum of the dots in the individual year entries in the rest of the figure. Rather, it is the average of the summed ratings changes of banks over the distinct horizons in their post-acquisition histories.

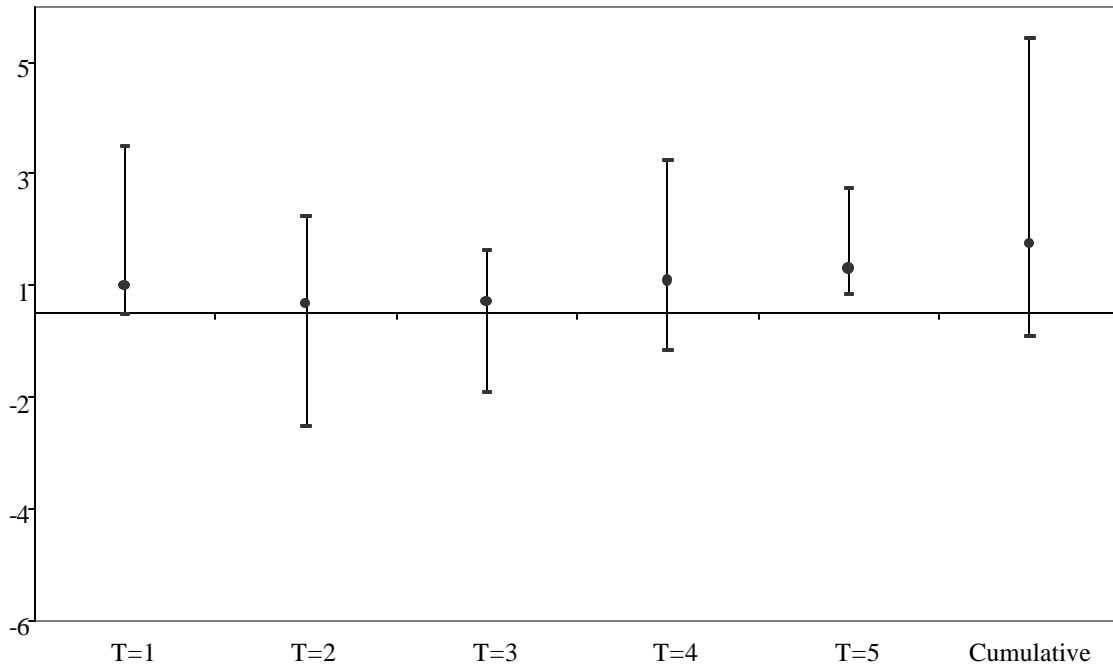
⁷ In Argentina, two of the acquired banks that were rated had downgrades, while the other four banks had no ratings changes in the period since acquisition. In Brazil, seven of the nine acquisitions (all since 1997) had no ratings changes, while the remaining two banks had upgrades of one and three grades, respectively. In Mexico, the three acquired banks all experienced upgrades within one year of acquisition.

Figure 1: Average Absolute and Relative Changes in Moody's BFSRs of Foreign-Acquired Banks in Latin America

Panel A: Absolute Average Ratings Changes of Foreign Acquisitions



Panel B: Acquired Bank Ratings Changes Relative to Domestic Bank Cohort



Panel B of Figure 1 shows that foreign acquired banks performed modestly better than domestic banks, with most of the relative gains occurring soon after the initial acquisition. This overall difference between the results in the two panels arises because domestic banks tended to be downgraded while the foreign banks maintained more stable ratings. Across all countries, the cumulative difference in bank ratings was typically less than a single ratings notch. The magnitude of this relative improvement is similar for foreign bank ratings changes compared with only the private subset of domestic banks.

There were, of course, some differences in the ratings experiences of banks within individual countries. As shown in Table 1, the relative ratings improvements of foreign banks were particularly strong in Peru, Chile and Mexico, with small relative improvements for foreign banks in Brazil and Venezuela. The actual and relative ratings changes were negative for Argentina and Colombia, although these negative results may understate the relative gains of the foreign rated banks. Throughout our analysis, foreign banks are being compared with the domestic banks that remained in operation (and were rated) in the latter half of the 1990s through 2000. Many of the weaker domestic banks were unrated and some closed or changed ownership status during this period, which biases the empirical results against foreign banks.

| Table 1: Cumulative BFSR Changes for Foreign-Acquired Banks | | | |
|--------------------------------------------------------------------|----------------|-------------------------------------------------|-----------------------------------------------------|
| | Actual Changes | Foreign-Acquired Relative to all Domestic Banks | Foreign-Acquired Relative to Domestic Private Banks |
| All Countries | 0.15 | 0.56 | 0.50 |
| Argentina | -0.67 | -0.33 | -0.67 |
| Brazil | 0.44 | 0.63 | 0.66 |
| Chile | 1.00 | 1.61 | 1.71 |
| Colombia | -3.00 | -0.75 | -1.00 |
| Mexico | 1.67 | 1.36 | 1.36 |
| Peru | 0.00 | 1.75 | 1.75 |
| Venezuela | -0.25 | 0.38 | 0.38 |

Source: Authors' calculations, based on Moody's BFSR data.

C. Bank Performance by CAMEL Components. This section analyzes the financial condition of foreign and domestic banks in more detail, using a CAMEL-based approach. We selected specific Latin American countries based on three criteria: a sufficient mixture of foreign and domestically owned banks, a recent period of stress on the banking system, and data

availability. Three countries and time frames satisfy these criteria, namely, Chile, Colombia, and Argentina in the post-1997 period.

For each country, we use publicly available, institution-specific data from supervisory authorities and Moody's Investors Service to calculate specific indicators of bank condition and performance across three broad categories of bank ownership: foreign, private domestic, and government. We also evaluate trends in these indicators across two subsets of foreign ownership: banks that were acquired by foreign shareholders relatively recently (since 1995), and foreign banks that have maintained significant local operations for a more extended period of time. We compare these foreign banks to the local banks that have remained under domestic control. Throughout our analysis, results pertaining to foreign, private domestic, and government banks are exhibited in Panel A of the tables, while the subsets of foreign ownership (recently acquired and longer standing) can be found in Panel B. Of note, our Panel A analysis sorts banks according to ownership type at the specified date. In contrast, Panel B provides historical data on banks sorted according to their ownership status at the sample end-date (year-end 2000).

Our analysis focuses on the twenty-five to thirty largest banks operating in each country, covering between 80 to virtually 100 percent of banking system assets in the respective countries. Since we are primarily interested in evaluating commercial banks, we exclude from this sample institutions not actively engaged in the retail banking market (that is, those banks with deposits and/or loans representing less than 25 percent of assets); very small banks (defined as accounting for less than 1 percent of sample loans); and other financial institutions with unique charters and operational characteristics (such as credit cooperatives, national mortgage banks, consumer finance companies and non-banks).

We use unweighted averages within and across bank ownership categories to better evaluate the effects of foreign ownership at the institutional level. Results should therefore not be interpreted as precise indicators of the level or trend of the overall condition and performance of the banking sector. Moreover, bank financial results are prepared in accordance with local accounting and regulatory standards and are not necessarily comparable internationally or across the three countries. Individual banks or ownership types may also apply existing standards more or less rigorously.

For each country, we begin with an overview of the banking system and a description of the sample used for the analysis. We then outline sectoral trends in four categories: balance sheet structure and liquidity, asset quality, earnings, and capital adequacy. Finally, we sum up the country experience with an overall evaluation.

The Chilean Experience. Following a period of crisis in the early 1980's, the condition and performance of Chile's financial sector improved substantially on the back of enhanced regulatory and supervisory oversight, combined with sustained economic growth and relative stability. As a result, bank penetration is now the highest in Latin America – credit to the private sector represents almost 70 percent of GDP – and the sector is considered one of the soundest in the region. The effects of the crisis lingered well into the 1990's, however, particularly in the form of large dividend payments to the central bank to service bailout costs.⁸

The mid-1990's witnessed a period of escalating bank penetration, consolidation, and foreign entry. Real deposit and loan growth rates averaged above 10 percent annually, with banks increasingly focused on the consumer segment, where loan growth peaked at an annual rate above 30 percent in 1996. A series of mergers and acquisitions concentrated bank ownership, and the top five banks now control 60 percent of bank assets, compared with 45 percent in 1995.

Foreign banks have historically maintained more of a presence in Chile than in the rest of the region, controlling 25 percent of bank assets in 1995. Penetration accelerated in the late 1990's, however, with Spanish Banco Santander's purchase of fifth-largest Banco Osorno y La Union in 1996 and its subsequent acquisition of second-largest Banco Santiago from the Luksic group shortly after Santander's 1999 merger with Central Hispanoamericano. During this same time period, Banco Bhif was acquired by Spain's Banco Bilbao Vizcaya Argentaria (BBVA), and Banco Sud Americano was bought by Canada's Scotiabank. These acquisitions, combined with organic growth, essentially doubled foreign participation in the Chilean financial sector between 1995 and 2000 to just under 50 percent. Roughly two-thirds of this foreign presence is attributable to Spanish banks and one-quarter to U.S. and Canadian institutions.

The Chilean economy began slowing in 1998 in response to the onset of the crisis in Asia (the destination of one-third of Chile's exports), historical lows for copper prices, and the

⁸ Most of these debts have since been settled at substantial discounts to face value.

adverse effects of El Niño on energy and agricultural sectors. A deterioration in global liquidity conditions following the Russian financial crisis and sharp domestic monetary tightening to support the peso further contributed to economic deceleration, with recession setting in by year-end 1998. These events adversely affected the operating environment and performance of Chile's banks. Although real GDP growth recovered in 2000, domestic demand and investment growth remain weak by historical standards, and banks have yet to evidence a recovery in credit activity. Below we evaluate the condition and performance of Chilean banks across ownership categories throughout this recent period.⁹

The Sample of Chilean Banks. The Chilean banks that we evaluate account for virtually 100 percent of system assets. The number of foreign-controlled entities ranges from thirteen to fifteen, representing 21 to 48 percent of sample assets in any given year. Of these, up to ten (4.5 percent of system assets) are excluded because of business orientation or size. Of the remaining foreign banks in our sample, four (equivalent to almost 40 percent of sample assets) were acquired in 1995 or later and are thus considered to be recent acquisitions, and three (representing approximately 10 percent of sample assets) have maintained local operations for an extended period of time.

Among domestic banks, the number of privately owned institutions ranges from nine to eleven (38 to 64 percent of sample assets). In any given year, at most two institutions accounting for 0.6 percent of sample assets are excluded owing to business orientation or size. The Banco del Estado is the only government-owned bank operating in Chile. Over the sample period, this bank consistently ranked second in asset size, and its share of sample assets declined only slightly, from 15.2 to 13.6 percent. The Banco del Estado is largely excluded from the following analysis by virtue of its unique mission to provide financing to under-served sectors.

Balance Sheet Structure and Liquidity. We start the analysis with a review of balance sheet structure and liquidity. Foreign banks in Chile, on average, tend to rely less on deposits for funding, maintain a higher capital cushion, and dedicate a greater proportion of assets to lower-risk, liquid investments than do domestic banks (Table 2, Panel A).

⁹ The statistics discussed in this section are compiled using a variety of sources, including the Chilean banking superintendency and Moody's Investors Service (various years).

| Table 2: Summary Balance Sheet Structure of Chilean Banks | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------|------|----------------|------------------|----------------|------|------------------|
| (percent of assets) | | | | | | |
| Panel A* | | Liquid Assets | | Loans | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Foreign | 34 | 33 | 67 | 61 | | |
| Domestic Private | 24 | 25 | 79 | 73 | | |
| Government | 40 | 34 | 60 | 59 | | |
| | | | | Total Deposits | | Capital |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Foreign | 39 | 45 | 11 | 14 | 11 | 8 |
| Domestic Private | 54 | 53 | 14 | 14 | 6 | 7 |
| Government | 61 | 55 | 21 | 18 | 6 | 5 |
| Panel B** | | Liquid Assets | | Loans | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Recent Foreign Acquisitions | 19 | 28 | 83 | 67 | | |
| Existing Foreign | 38 | 38 | 62 | 54 | | |
| Domestic Private | 26 | 25 | 77 | 73 | | |
| | | | | Total Deposits | | Capital |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Recent Foreign Acquisitions | 51 | 45 | 14 | 14 | 7 | 7 |
| Existing Foreign | 34 | 44 | 10 | 14 | 12 | 10 |
| Domestic Private | 56 | 53 | 15 | 14 | 6 | 7 |
| Loan and Deposit Trends | | | | | | |
| (1997 through 2000, in percent) | | | | | | |
| | | Average Annual | | Average Annual | | Loans / Deposits |
| | | Loan Growth | | Deposit Growth | | 1997 2000 |
| Panel C* | | | | | | |
| Foreign | 14 | | 31 | | 176 | 137 |
| Domestic Private | 12 | | 14 | | 147 | 139 |
| Government | 13 | | 9 | | 98 | 108 |
| Panel D** | | | | | | |
| Recent Foreign Acquisitions | 3 | | 6 | | 163 | 148 |
| Existing Foreign | 29 | | 64 | | 186 | 122 |
| Domestic Private | 15 | | 18 | | 138 | 139 |
| Source: Authors' calculations, based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF). | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | |

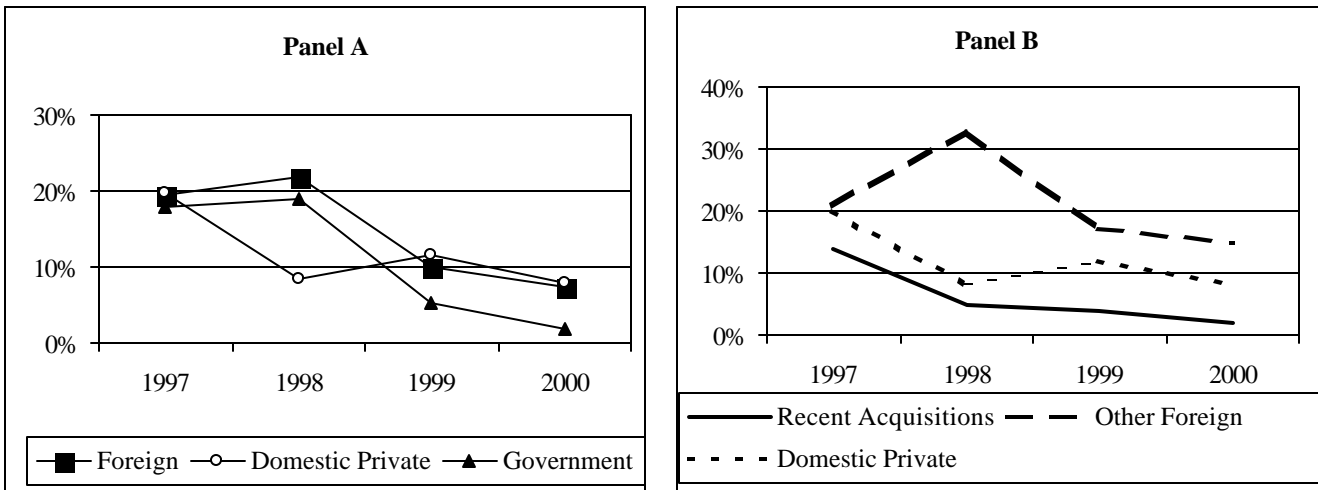
Relative to privately held domestic banks, in particular, foreign banks dedicate significantly less of their balance sheet to lending activities. These behaviors may still be evolving, however. Foreign banks appear to have aggressively targeted growth in deposit market share, for example, as evidenced by an average annual growth rate of 31 percent over the sample period –

significantly higher than private or public domestic banks (Table 2, Panel C).¹⁰ Furthermore, foreign bank holdings of relatively lower-cost demand deposits are in line with those of their private domestic counterparts (Table 2, Panel A). Foreign banks also increased their loan portfolios marginally faster, on average, than domestic banks over the sample period, although substantially less than deposits, leading to enhanced liquidity. As a result of both acquisitions and organic growth, foreign banks' share of sample deposits and loans grew to just over 40 percent in 2000, from less than 20 percent in 1997.

Over this time period, balance sheet structure and liquidity trends demonstrate important differences across banks recently acquired by foreign shareholders, foreign banks that have been operating in Chile for an extended period of time, and domestically-owned banks. Banks acquired over the past five years had, on average, a much sharper shift in the asset mix away from loans and toward more liquid holdings (Table 2, Panel B). At the same time, these acquired banks reduced their reliance on deposit-based financing, while other foreign banks with a longer history in the Chilean market sharply expanded deposit share. These distinct behaviors are clearly evident in Charts 4 and 5, Panels B, in which the average loan and deposit growth rates of recently acquired foreign banks contrast with much higher rates for longer-present foreign banks, as well as with the more moderate growth of private domestic entities.

¹⁰ Average growth rates are in nominal terms and are adjusted for acquisition effects during the sample period.

Chart 4: Average Loan Growth of Chilean Banks

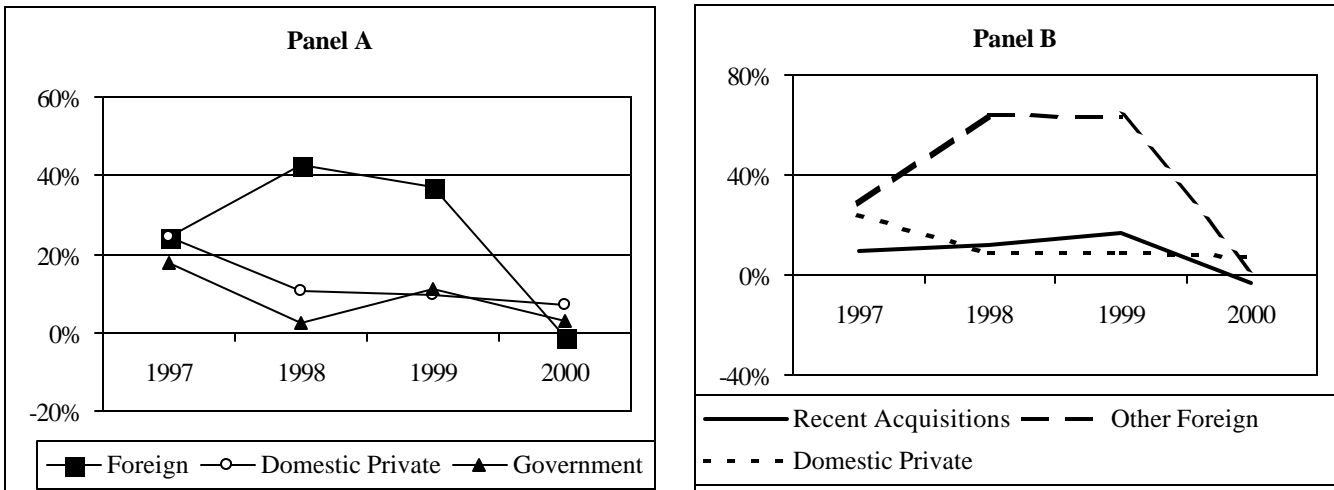


Source: Authors' calculations, based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF).

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Chart 5: Average Deposit Growth of Chilean Banks



Source: Authors' calculations based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF).

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

These results are consistent with an inward management focus in the wake of large-scale acquisitions, as attention turns toward merger integration and absorption issues such as

standardizing risk management and operating procedures, integrating technology platforms, and adapting management information systems. The runoff in loans as a proportion of average assets is similarly consistent with post-acquisition balance sheet cleansing. These findings also suggest that foreign banks that rely primarily on organic growth may feel the pressure to build market share and respond aggressively to industry consolidations.

Asset Quality. Asset quality deteriorated over the sample period as the stock of non-performing loans more than doubled in nominal terms. However, non-performing loans as a share of loans remained broadly manageable at just under 2 percent of sample loans, on average.¹¹ Credit portfolio deterioration at private sector banks appears to have proceeded at a similar pace, regardless of bank ownership (Table 3, Panel A). Grouping banks into peer groups with similar market orientation and penetration yields similar results; this suggests broad-based deterioration across borrowers.

| Table 3: Selected Average Asset Quality Indicators of Chilean Banks | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------|------------|------|------------|------|------------|------|--------------------|------|
| (percent of total loans, except as indicated) | | | | | | | | |
| Panel A* | % of Loans | | | | | | % of NPLs | |
| | NPLs | | Provisions | | Recoveries | | Loan Loss Reserves | |
| | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Foreign | 0.7 | 1.9 | 0.9 | 1.9 | 0.2 | 0.7 | 216 | 181 |
| Domestic Private | 0.8 | 2.0 | 0.9 | 1.4 | 0.2 | 0.2 | 156 | 192 |
| Government | 2.2 | 1.3 | 1.1 | 1.1 | 0.6 | 0.6 | 101 | 159 |
| Panel B** | | | | | | | | |
| Recent Foreign Acquisitions | 1.0 | 2.3 | 1.2 | 1.6 | 0.3 | 0.5 | 125 | 126 |
| Existing Foreign | 0.6 | 1.5 | 0.7 | 2.3 | 0.1 | 1.0 | 248 | 254 |
| Domestic Private | 0.7 | 2.0 | 0.8 | 1.4 | 0.2 | 0.2 | 168 | 192 |
| Source: Authors' calculations, based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF). | | | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

¹¹ Chilean banks do not report as non-performing the full balance of loans past-due, defined as at least 90 days delinquent on payment of principal or interest. Reported non-performing loans include only the payments that are actually overdue, unless legal restitution has been initiated for the entire balance.

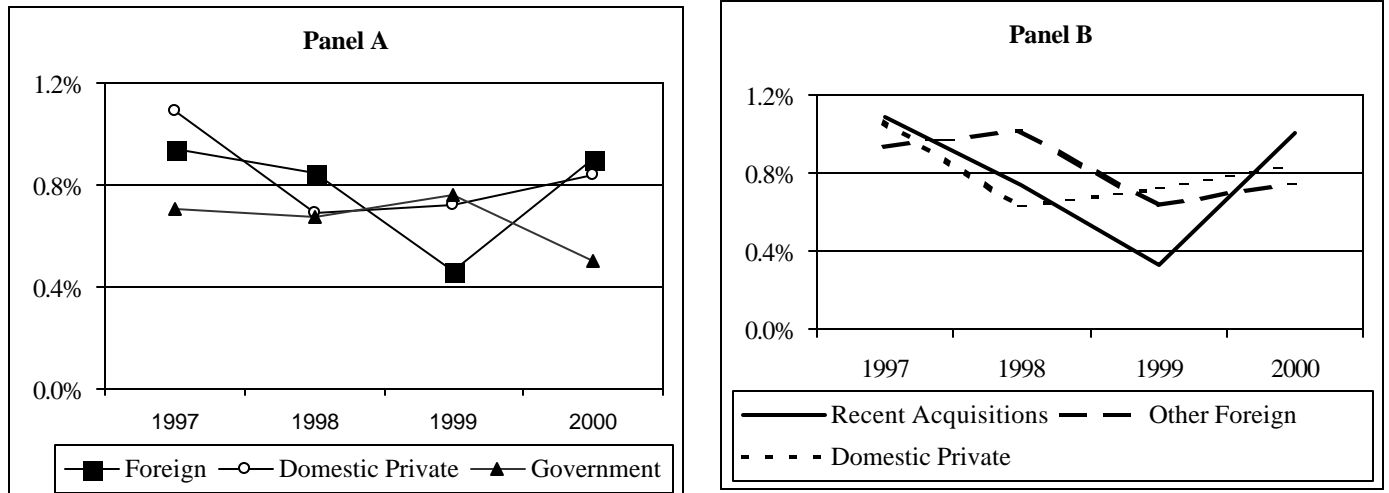
However, institutions acquired by new foreign owners over the past five years had a somewhat stronger rate and level of asset quality deterioration (Table 3, Panel B). This may reflect either the purchase of banks of lesser health or a more proactive management of credit risks. Foreign banks with more established local operations maintained notably stronger asset quality ratios than private domestic banks during this economic downturn, which could reflect a more conservative loan orientation or credit risk management. The fact that these established foreign banks were also the most aggressive provisioners for potential loan losses over the sample period supports this argument. Both acquired and established foreign banks generally provisioned more heavily than their domestic counterparts. Perhaps in reflection of this activity, foreign banks – in particular more established foreign banks – outperformed their domestic peers in recovering losses. Over the sample period, foreign banks as a group recovered 1.8 percent of average loans, with longer-standing foreign banks recovering 3.8 percent, while private domestic banks recovered 0.8 percent.

Banks across all ownership categories consistently maintained adequate reserves to cover potential losses embedded in reported non-performing loans, although foreign banks with longer-standing operations clearly stand out (Table 3, Panel B). A stable reserve trend, on average, at recently acquired entities – despite rising provisioning activity – points to a relatively more aggressive approach to charging off problem loans.¹²

Earnings. With regard to earnings, there is no clear trend in the overall profitability of either privately held domestic banks or foreign-controlled banks during the sample period. Both experienced downturns, with domestic banks more rapidly exhibiting the effects of a deterioration in operating conditions (Chart 6, Panel A).

¹² While we do not have institution-specific charge-off ratios for the sample set, a review of publicly released financial statements of a subset of the larger banks shows charge-offs as a proportion of average loans rising noticeably in the wake of foreign acquisitions.

Chart 6: Return on Average Assets of Chilean Banks



Source: Authors' calculations, based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF).
 Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.
 Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Foreign bank profitability deteriorated more sharply than that of domestic banks from 1997-1999, but it then rebounded more quickly. This reflects higher provisioning expenses in the wake of acquisitions in 1998 and 1999 and possibly also a higher volume of market-related activities (evident in operating income and expense ratios in Table 4, Panel A). Netting out these effects yields broadly similar operating income and expense ratios across banks.

On average, banks that were recently acquired exhibited declining net interest margins, while those of longer-established foreign and domestic banks increased. This is consistent with the previously discussed loan and deposit growth trends. While all banks witnessed an increase in other operating revenues, the trend was particularly pronounced at foreign banks, although again, it was largely market driven. Net operating income exhibited broadly similar trends. All banks also recorded net efficiency gains over the sample period, which were slightly but not significantly more pronounced at recently acquired banks.

| Table 4: Selected Average Profitability Indicators for Chilean Banks | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------|------|------|------|--------------------------------|------|------|------|
| (percent of average assets) | | | | | | | | |
| Panel A* | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 3.2 | 3.1 | 3.6 | 3.7 | 8.9 | 9.9 | 13.3 | 14.2 |
| Domestic Private | 3.3 | 3.5 | 3.4 | 3.7 | 3.2 | 4.4 | 3.6 | 4.3 |
| Government | 3.5 | 4.1 | 3.6 | 3.6 | 1.6 | 2.3 | 2.3 | 2.3 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 0.66 | 1.25 | 1.90 | 1.21 | 10.6 | 10.6 | 15.2 | 16.1 |
| Domestic Private | 0.72 | 1.20 | 1.47 | 1.08 | 5.5 | 6.4 | 5.4 | 6.0 |
| Government | 0.67 | 1.00 | 0.83 | 0.70 | 4.5 | 4.9 | 4.8 | 4.5 |
| Panel B** | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 3.8 | 3.8 | 3.5 | 3.5 | 5.8 | 7.5 | 6.2 | 10.3 |
| Existing Foreign | 2.9 | 2.7 | 3.7 | 4.0 | 10.3 | 13.5 | 22.9 | 19.4 |
| Domestic Private | 3.1 | 3.5 | 3.4 | 3.7 | 1.9 | 2.6 | 3.6 | 4.3 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 1.0 | 1.5 | 1.8 | 1.1 | 8.2 | 9.4 | 8.2 | 12.0 |
| Existing Foreign | 0.5 | 1.1 | 2.1 | 1.3 | 11.9 | 13.5 | 24.6 | 21.6 |
| Domestic Private | 0.6 | 1.1 | 1.5 | 1.1 | 4.2 | 4.6 | 5.4 | 6.0 |
| Source: Authors' calculations, based on data from the Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF). | | | | | | | | |
| * Banks sorted by ownership status at year-end 1997, 1998, 1999, and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

Capital Adequacy. Turning now to capital adequacy, foreign banks began the sample period with a higher ratio of capital to assets, and despite a moderate deterioration they remain broadly better capitalized than privately held domestic banks (Table 2, Panel A). Stronger capital ratios are, however, concentrated in the foreign banks with a longer local presence. Recently acquired banks exhibit similar capital levels as domestic banks, suggesting either that ownership changes were not accompanied by significant recapitalization or that new capital was used to effect balance sheet cleansing.

A similar trend is evident in the evolution of risk-based capital ratios over the sample period (Table 5). In aggregate, foreign banks had sharply stronger, albeit decreasing, tier 1 and total risk-based capital ratios than domestic banks, which reflects their relatively lower-risk balance sheet structures (Panel A). Again, stronger capital ratios were, on average, concentrated in those foreign banks that have been active in the local market for an extended period of time (Panel B).

| Table 5: Risk-Based Capital Ratios of Chilean Banks | | | | |
|---------------------------------------------------------------------------------|----------------|-------|---------------|-------|
| (percent of risk-weighted assets) | | | | |
| | Tier 1 Capital | | Total Capital | |
| | 1998 | 2000 | 1998 | 2000 |
| Panel A* | | | | |
| Foreign | 10.57 | 9.31 | 17.23 | 15.41 |
| Private Domestic | 6.27 | 6.67 | 10.29 | 11.14 |
| Government | 5.88 | 5.79 | 11.35 | 12.70 |
| Panel B** | | | | |
| Recent Foreign Acquisitions | 7.80 | 7.39 | 12.80 | 13.20 |
| Existing Foreign | 11.80 | 11.90 | 19.40 | 18.40 |
| Domestic Private | 6.06 | 6.67 | 9.90 | 11.14 |
| Source: Superintendencia de Bancos e Instituciones Financieras de Chile (SBIF). | | | | |
| * Banks sorted by ownership status at year-end 1998 and 2000. | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | |

The disparity between foreign and domestic capital ratios may be explained, in part, by constraints on domestic banks' capital generation throughout the early 1990s, stemming from high dividend payout ratios on subordinated debt inherited from the crisis of the early 1980's. Domestic banks have since taken steps to boost capital adequacy levels to conform with 1997 banking reform legislation that, among other things, adopted the 8 percent risk-weighted capital standard advocated by the Basel Committee on Banking Supervision. As a result, privately owned domestic banks, on average, comfortably exceed minimum regulatory standards for capital adequacy.

Overall Assessment. Our overall assessment is that Chile's financial sector as a whole appears to have weathered the recent economic downturn relatively well, without clear-cut distinctions in quality or trend across ownership types. Domestic and foreign banks do exhibit important differences in operating behavior, however, which could point toward longer-term institutional

trends. These differences are particularly pronounced when we evaluate condition and performance across banks that were recently acquired by foreign entities, foreign banks that have been active in the local market for an extended period of time, and private domestic banks.

Relative to domestic banks, foreign banks generally rely less on deposit-based financing (although foreign banks that are not absorbed by merger integration issues appear to be trying to change this); dedicate less of their balance sheet to lending; reduce deposit and loan growth less as macroeconomic conditions deteriorate; provision for potential loan losses (and possibly charge off bad loans) more aggressively, despite a similar degree of deterioration in non-performing loan ratios; are more successful at recovering charged-off loans; maintain a deeper capital cushion; and appear more adept at diversifying revenue streams. However, foreign banks do not appear to be in substantially overall sounder condition than their domestic counterparts, which may reflect a supervisory framework geared toward the active monitoring of credit risks.

The Colombian Experience. As in the case of Chile, a banking crisis in the early 1980s triggered structural and regulatory reforms that significantly enhanced the condition and performance of the Colombian banking system.¹³ Beginning in the early 1990s, Colombia implemented a number of measures to increase competition and efficiency in the financial sector, as part of a broader program of economic liberalization and market reform. These measures included, *inter alia*, interest rate liberalization, a reduction in barriers to entry in Colombia's historically segmented financial system, the opening of the sector to majority ownership of banks by foreign financial institutions, and a reduction in financial intermediation taxes (such as reserve requirements). These measures, coupled with strong domestic demand, contributed to rapid real credit growth of more than 20 percent a year from 1993 to 1995 and a decline in intermediation spreads attributable to heightened competition, in part reflecting increased foreign entry.

This period also witnessed substantial measures to enhance prudential regulation and supervision, including the adoption of Basel capital adequacy standards in 1994 and a range of measures to tighten requirements on loan loss provisioning, disclosure and consolidated reporting, and loan classification. Colombia's supervisory and regulatory regime is now

considered one of the strongest in the region and is credited with fostering more prudent risk taking by private banks.

Notwithstanding these measures, the Colombian banking sector has faced significant difficulties in recent years. Restrictive monetary policy in defense of the currency in late 1998, a severe recession in 1999, significant declines in the real estate market, and local governments' debt-servicing problems all weighed on the sector's condition and performance. Such pressures were especially acute in the state-owned, savings and loan, and cooperatives sectors, which together represent more than one-third of the financial system. Roughly fifty institutions were intervened, and a large number of these were eventually liquidated. These actions formed part of an overall program to contain the crisis; other measures involved recapitalizing the deposit insurance corporation, providing mortgage borrower relief, reforming the troubled cooperative sector, and recapitalizing the banking sector through direct grants to state-owned banks and soft-financing to private banks. The costs of the overall rescue program have been estimated at more than 8 percent of GDP, before recoveries.¹⁴

The pressures were generally less intense for the top twenty-five banks in the sample (with the notable exceptions of the large state-owned banks) as a result of their better credit risk management and high initial capital levels. Still, even these banks initially had relatively low coverage ratios that needed to be bolstered through substantial provisions, leading in some cases to participation in the government support program.

Foreign banks have entered Colombia through a variety of routes, including the reacquisition of previously held majority ownership stakes (which were limited in the 1970s by joint venture requirements that were lifted in the early 1990s), de novo entry, and other acquisitions.¹⁵ The largest transactions involved the acquisition of Banco Ganadero by BBVA in 1996, and of Banco Comercial Antioqueno by Banco Santander in 1997. These acquisitions, together with organic growth by foreign banks, more than doubled the share of foreign ownership of system assets to approximately 24 percent. Roughly 60 percent of this foreign presence is attributable to Spanish banks, and one-quarter to U.S. banks.

¹³ The statistics discussed in this section are compiled using a variety of sources, including the Colombian banking superintendency and Moody's Investors Service (various years).

¹⁴ Swabey, Hernandez and Edkins (2000).

¹⁵ See Barajas, Steiner, and Salazar (2000) for further discussion of the history of foreign bank ownership in Colombia and an assessment of the impact of foreign banks on the overall banking sector.

The share of sample assets under government ownership is similar to that of foreign banks (roughly 20 percent), and the Colombian authorities have committed to privatizing most institutions over the short term. In contrast to Chile and Argentina, overall concentration ratios, as measured by the share of banking system assets held by the top five banks, remained fairly steady between 1995 and 2000 (at approximately 45 percent), although the non-bank financial sector has undergone notable consolidation in recent years.

The Sample of Colombian Banks. The larger Colombian banks that we evaluate account for 90 percent of banking system assets. The number of foreign banks is ten, or 25-28 percent of sample assets. Of these, up to four are excluded from the detailed analysis in any given year, either because they are not active in the retail banking market or because they are so small as to be irrelevant for a broad system discussion. These exclusions account for less than 3 percent of sample assets. Of the remaining six foreign banks (15 percent of sample assets), two are considered recent acquisitions (since 1996), and four have maintained local operations for an extended period of time (8 percent of sample assets).

The number of privately owned domestic banks ranges from eleven to twelve, or 53-55 percent of sample assets. In any given year, only one institution accounting for less than 1 percent of sample assets is excluded owing to business orientation or size. The analysis also covers several state-owned banks, which account for 18-19 percent of sample assets. In any given year, at most two state-owned banks are excluded, representing not more than 3 percent of sample assets.

Balance Sheet Structure and Liquidity. As in the case of Chile, foreign banks generally rely less on deposits for funding, hold a relatively comparable share of lower-cost demand deposits to assets, and dedicate a greater proportion of their balance sheet to lower-risk, more liquid investments than do private domestic banks (See Table 6, panel A).

In contrast to Chile, however, foreign and private domestic banks operating in Colombia hold relatively comparable shares of loans, at least relative to total assets. Foreign banks also appear to generally have lower balance sheet liquidity than private domestic banks, as measured by loan-to-deposit ratios (see Table 6, Panel C). Capital ratios are high at both private domestic and foreign banks, while they are significantly lower at state banks. Average loan growth in the

period was slightly higher at foreign banks than at private domestic banks, while average deposit growth was comparable at both sets of institutions.

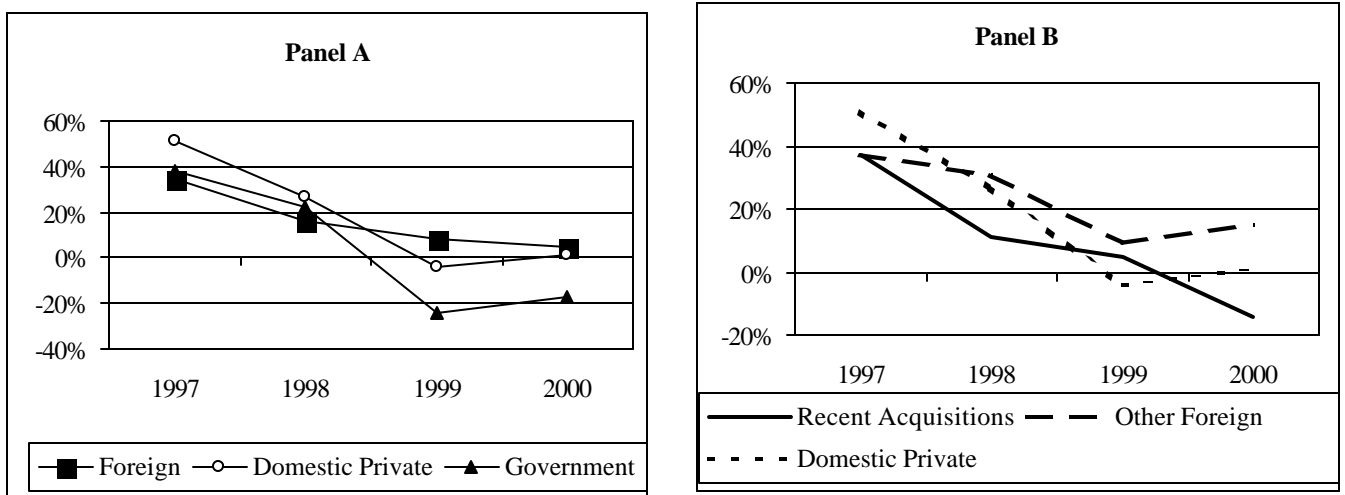
| Table 6: Summary Balance Sheet Structure of Colombian Banks | | | | | | |
|----------------------------------------------------------------------------------------------|----------------|------|------------------|------|------------------|------|
| (percent of assets) | | | | | | |
| Panel A* | | | | | | |
| | Liquid Assets | | Loans | | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Foreign | 22 | 25 | 64 | 66 | | |
| Domestic Private | 19 | 22 | 63 | 63 | | |
| Government | 16 | 31 | 64 | 33 | | |
| | Total Deposits | | | | Capital | |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Foreign | 55 | 60 | 16 | 16 | 13 | 10 |
| Domestic Private | 59 | 70 | 12 | 17 | 14 | 12 |
| Government | 59 | 63 | 17 | 17 | 8 | 5 |
| Panel B** | | | | | | |
| | Liquid Assets | | Loans | | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Recent Foreign Acquisitions | 22 | 37 | 64 | 53 | | |
| Existing Foreign | 23 | 19 | 66 | 73 | | |
| Domestic Private | 19 | 22 | 63 | 63 | | |
| | Total Deposits | | | | Capital | |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Recent Foreign Acquisitions | 56 | 63 | 18 | 17 | 16 | 10 |
| Existing Foreign | 57 | 59 | 15 | 15 | 13 | 11 |
| Domestic Private | 59 | 70 | 12 | 17 | 14 | 12 |
| Loan and Deposit Trends | | | | | | |
| (1997 through 2000, in percent) | | | | | | |
| | Average Annual | | Average Annual | | Loans / Deposits | |
| | Loan Growth | | Deposit Growth | | 1997 | 2000 |
| Panel C* | | | | | | |
| Foreign | 24 | | 28 | | 116 | 108 |
| Domestic Private | 20 | | 27 | | 108 | 88 |
| Government | -1 | | 12 | | 109 | 53 |
| Panel D** | | | | | | |
| Recent Foreign Acquisitions | 9 | | 23 | | 114 | 84 |
| Existing Foreign | 32 | | 31 | | 118 | 123 |
| Domestic Private | 20 | | 27 | | 108 | 88 |
| Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia. | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | |

Foreign bank trends were quite different, however, between those banks that entered the market through recent acquisitions and those with existing operations (Table 6, Panels B and D). Acquired banks demonstrate more defensive behavior, with sharply lower average loan

growth, a declining share of loans in their asset mix, significant build-up in liquid assets, and improving loan-to-deposit ratios. These findings are consistent with the Chilean experience, and they suggest that acquired banks were more focused on consolidation than growth during the period. Capital levels also declined more sharply at acquired banks. Foreign banks with existing operations, however, were relatively more growth-oriented, exhibiting higher average loan growth than either acquired banks or private domestic banks, as well as a slight deterioration in liquidity ratios.

Breaking out relative loan and deposit growth across the sample period shows these divergent responses more clearly, especially when considered in combination with the onset of difficult economic conditions (Chart 7, Panel A). Foreign banks overall show less dramatic declines in loan growth than do private domestic banks, although recently acquired banks show steep declines, on average (Panel B). A notable distinction across banks is seen in 2000, when loan growth was negative at recently acquired banks, basically flat at domestic banks, and significantly positive at existing foreign banks, notwithstanding relatively stronger growth in deposits at private domestic banks.

Chart 7: Average Loan Growth of Colombian Banks

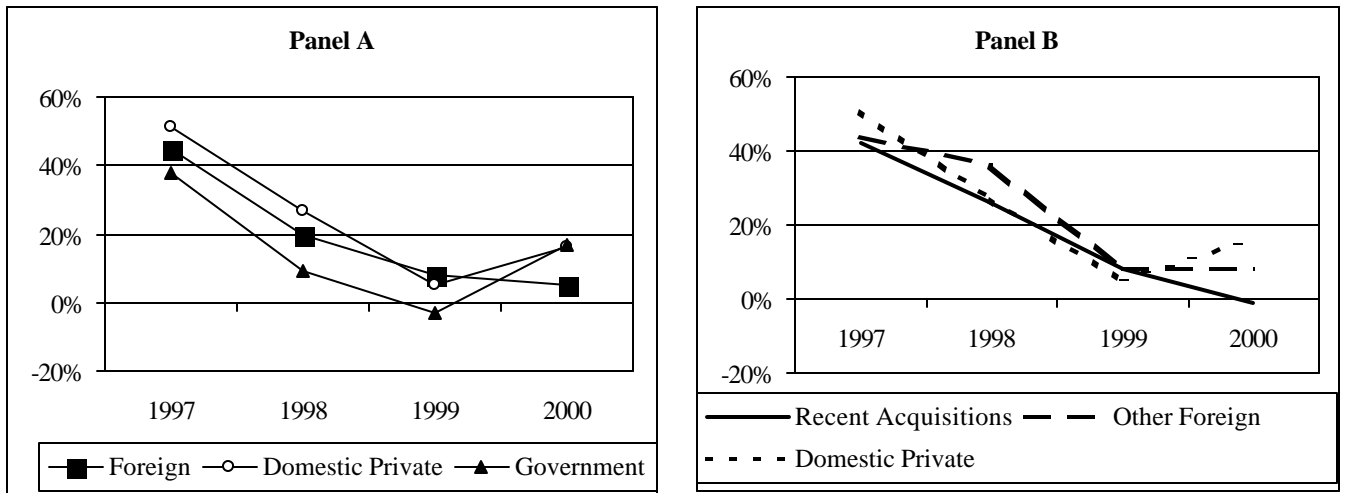


Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Chart 8: Average Deposit Growth of Colombian Banks



Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Asset Quality. As noted above, all institution types witnessed deterioration in asset quality over the period. As shown in Table 7, panel A, non-performing loan ratios rose across all types of banks, with more notable deterioration at state and private domestic banks and modest deterioration at foreign banks.¹⁶ Both foreign and private domestic banks made aggressive provisions to address asset quality problems. Reserve coverage of non-performing loans improved markedly over the period for both types of banks, although foreign banks showed the most dramatic increase: at year-end 2000 coverage was substantially higher for foreign banks than for private domestic banks, at 138 percent versus 86 percent. Foreign banks also reported higher recoveries than private domestic banks over the 1998-2000 period (11 percent of loans versus 7 percent, respectively), which may indicate more aggressive and effective workout skills – or simply a higher average level of charge-offs. Limited availability of charge-off data precludes a more comprehensive discussion of asset quality trends, but more aggressive provisioning and recoveries at foreign banks are suggestive of more aggressive charge-off policies.

¹⁶ The ratios provided here for sample endpoints obscure the sharp rise in non-performing loan ratios at state banks over the period. Average reported non-performing loan ratios for state banks peaked at 23 percent, prior to recapitalization and clean-up of the sector.

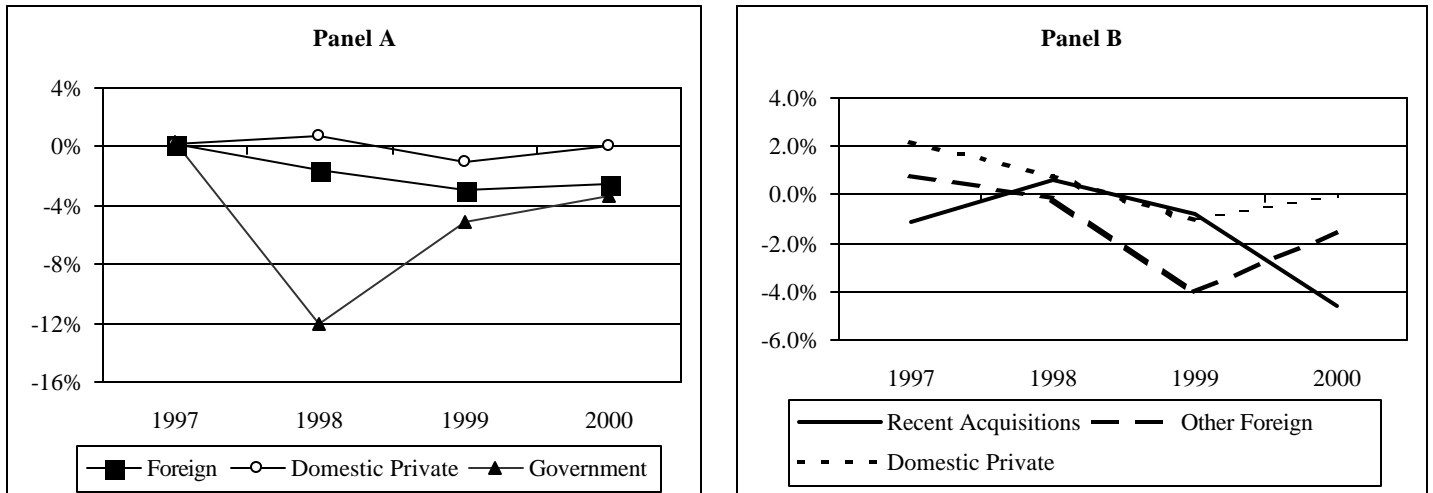
| Table 7: Selected Average Asset Quality Indicators of Colombian Banks | | | | | | | | |
|----------------------------------------------------------------------------------------------|------------|------|------------|------|------------|------|--------------------|------|
| (percent of total loans, except as indicated) | | | | | | | | |
| Panel A* | % of Loans | | | | | | % of NPLs | |
| | NPLs | | Provisions | | Recoveries | | Loan Loss Reserves | |
| | 1997 | 2000 | 1997 | 2000 | 1998+ | 2000 | 1997 | 2000 |
| Foreign | 3.4 | 4.8 | 3.1 | 4.8 | 1.7 | 4.1 | 84 | 138 |
| Domestic Private | 3.8 | 6.6 | 2.9 | 4.5 | 1.6 | 3.3 | 60 | 86 |
| Government | 8.3 | 9.7 | 4.4 | 6.4 | 2.5 | 1.8 | 39 | 87 |
| Panel B** | | | | | | | | |
| Recent Foreign Acquisitions | 4.8 | 4.7 | 4.1 | 7.8 | 2.8 | 5.3 | 79 | 220 |
| Existing Foreign | 2.8 | 4.8 | 3.2 | 3.4 | 1.3 | 3.5 | 98 | 96 |
| Domestic Private | 3.8 | 6.6 | 2.9 | 4.5 | 1.6 | 3.3 | 60 | 86 |
| Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia. | | | | | | | | |
| + Comparable 1997 recoveries data not available | | | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

Table 7, Panel B, identifies important differences in the performance of recently acquired and existing foreign banks. Acquired banks began the period with the highest average problem loan burden, and they made significantly higher provisions (and presumably charge-offs) to address problem loans. Although non-performing loan ratios were basically unchanged over the period, reserve coverage improved dramatically to more than 200 percent. Existing foreign banks reported slightly higher provisions than private domestic banks over the period, maintaining higher reserve coverage and containing increases in bad loan ratios.¹⁷

Earnings. With regard to earnings, the period of economic stress was generally marked by a deterioration in revenue streams, increasing provisions, and high non-interest expense, which contributed to declining and in some cases highly negative earnings, as shown in Chart 9. These findings are particularly true for state banks, but also for foreign banks.

¹⁷ The provisioning ratios provided here for sample endpoints do not fully represent average provision activity over the four-year period.

Chart 9: Return on Average Assets of Colombian Banks



Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

A comparison of individual income statement items across private domestic and foreign banks suggests that foreign banks had weaker earnings across all major categories of revenues and expenses and were more negatively affected by the economic downturn (Table 8, Panel A). On average, foreign banks show weaker interest margins and non-interest income, together with higher overhead and provisioning expenses. Acquired banks evidence the weakest results in terms of net interest margins, provision expense, and non-interest operating expense. Weaker interest income no doubt reflects the impact of higher relative problem loans, lower loan growth, and the significant build-up in liquid assets over the period, while higher non-interest operating expenses may reflect acquisition-related restructuring costs.

| Table 8: Selected Average Profitability Indicators for Colombian Banks | | | | | | | | |
|----------------------------------------------------------------------------------------------|---------------------|------|------|------|--------------------------------|------|------|------|
| (percent of average assets) | | | | | | | | |
| Panel A* | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 6.7 | 5.1 | 5.0 | 4.8 | n.a. | 6.0 | 6.6 | 4.6 |
| Domestic Private | 6.9 | 7.2 | 5.2 | 5.9 | n.a. | 5.8 | 5.3 | 5.5 |
| Government | 6.9 | 3.2 | 2.2 | 2.0 | n.a. | 2.7 | 4.7 | 6.5 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 2.5 | 2.6 | 6.2 | 3.6 | n.a. | 9.8 | 9.7 | 9.6 |
| Domestic Private | 2.3 | 2.6 | 4.3 | 3.5 | n.a. | 9.6 | 8.2 | 9.5 |
| Government | 4.3 | 5.8 | 5.2 | 3.1 | n.a. | 12.6 | 7.5 | 8.5 |
| Panel B** | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 7.1 | 7.4 | 4.7 | 4.0 | n.a. | 7.2 | 7.1 | 5.3 |
| Existing Foreign | 7.6 | 5.5 | 5.2 | 5.1 | n.a. | 6.3 | 6.3 | 4.3 |
| Domestic Private | 6.9 | 7.2 | 5.2 | 5.9 | n.a. | 5.8 | 5.3 | 5.5 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 3.3 | 3.5 | 5.3 | 5.4 | n.a. | 10.8 | 10.1 | 10.2 |
| Existing Foreign | 2.5 | 2.0 | 6.6 | 2.7 | n.a. | 9.4 | 9.5 | 9.3 |
| Domestic Private | 2.3 | 2.6 | 4.3 | 3.5 | n.a. | 9.6 | 8.2 | 9.5 |
| Source: Authors' calculations, based on data from the Superintendencia Bancaria de Colombia. | | | | | | | | |
| * Banks sorted by ownership status at year-end 1997, 1998, 1999, and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

Capital Adequacy. An analysis of capital adequacy reveals that the very high capital levels of both private domestic and foreign banks at the beginning of the period were important for maintaining financial institution soundness (Table 6, Panel A). State bank capital levels, which on average turned negative in 1998, benefited substantially from a large recapitalization in 1999, although capital levels declined further with subsequent losses. Capital injections during the period helped to maintain capital at robust levels for private and foreign banks. However, foreign bank losses were larger, on average, than those of domestic banks, and their capital ratios declined relatively more over the period.

A review of risk-based capital ratios across the three ownership classes portrays a somewhat different story, as shown in Table 9. All entities show notable improvement in risk-based ratios from 1997 to 2000, with foreign bank ratios exceeding those of private domestic

banks at period-end. As in the case of Chile, this result most likely reflects lower risk levels at foreign banks, and it could suggest of a more efficient use of capital by foreign banks. Acquired banks show the largest declines in leverage ratios, but they report higher risk-based ratios than private domestic and other foreign banks, attributable to the reorientation of the balance sheet toward more liquid, lower-risk investments.

| Table 9: Average Capital Ratios of Colombian Banks | | | | |
|-----------------------------------------------------------------------------|----------------|-------|--------------------------|-------|
| (percent of assets and risk-weighted assets, respectively) | | | | |
| | Capital/Assets | | Total Risk Based Capital | |
| | 1997 | 2000 | 1997 | 2000 |
| Panel A* | | | | |
| Foreign | 13.18 | 10.30 | 11.50 | 12.70 |
| Domestic Private | 14.18 | 11.97 | 11.20 | 12.10 |
| Government | 7.88 | 5.28 | 11.50 | 14.30 |
| Panel B** | | | | |
| Recent Foreign Acquisitions | 15.60 | 9.92 | 13.30 | 13.90 |
| Existing Foreign | 13.20 | 10.50 | 10.60 | 12.10 |
| Domestic Private | 14.18 | 11.97 | 11.20 | 12.10 |
| Source: Superintendencia Bancaria de Colombia | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | |

Overall assessment. For the Colombian banking system as a whole, the period under review was clearly a challenging one as banks attempted to confront a worsening operating environment and weakening asset quality by implementing defensive measures to shore up loan loss reserves and capital and rein in new lending. With regard to discernable differences between foreign and domestic bank performance, we observe relatively similar trends. The key differences center primarily on foreign banks' higher average provision expense. This higher provisioning was an important factor behind significant losses at foreign banks, but it also led to substantially higher reserve coverage and lower levels of non-performing loans. Losses eroded bank leverage ratios relatively more at foreign banks, but capital adequacy levels remained robust as a result of injections over the period and a move toward lower-risk investments. Notwithstanding these difficulties, foreign banks on the whole showed consistently higher average loan growth over the period.

These differences are magnified when one compares the relative condition and performance of acquired banks, existing foreign banks, and private domestic banks. Over the

period, acquired banks appear mainly to have concentrated on cleansing their balance sheets, building liquidity, and curbing new lending. While existing foreign banks took efforts to limit the deterioration of asset quality and improve reserve coverage, these measures generated a less severe impact on loan growth, which was higher, on average, than at either acquired or private domestic banks.

The Argentine Experience. Introduction of the Convertibility Plan in 1991 marked a turning point in Argentine financial history. It heralded profound monetary and fiscal reform, broad deregulation of domestic markets, privatization of government-owned entities, trade liberalization, elimination of capital controls and, more generally, a macroeconomic environment conducive to foreign investment. Pegging the Argentine peso to the dollar also succeeded in stemming hyperinflationary pressures and helping restore economic growth relatively quickly. This contributed to significant financial deepening, with bank credit to the private sector almost doubling to just under 20 percent of GDP by the mid-1990's.

Beginning in early 1995, contagion from Mexico's Tequila Crisis severely tested the Argentine financial sector, sparking an outflow of almost 20 percent of system deposits. The transformation of the Argentine financial sector accelerated in the wake of the Tequila Crisis. Efforts undertaken to reestablish confidence in the banking sector included the introduction of deposit insurance, a renewed commitment to privatizing inefficient public sector banks, the liquidation and consolidation of nonviable entities, and the dedication of substantial resources to strengthening supervisory oversight and the regulatory framework. Within this context, foreign banks were permitted to play an important role in recapitalizing the Argentine banking system.

Very few foreign banks were present in Argentina prior to the 1990s, with U.S. institutions among the more active. The removal of restrictions on foreign direct investment and capital repatriation led to an increase in the number of foreign banks operating in Argentina, but they remained under 20 percent of system assets through 1995. Subsequent entry occurred mainly via the acquisition of existing operations, as foreign shareholders acquired controlling stakes in private institutions with a national or regional franchise, together with minority interests in a number of other financial institutions. By 1999, roughly half of banking sector assets were under foreign control. Roughly one-third of this foreign presence is currently controlled by U.S. and Canadian banks and two-thirds by European entities, half of which are Spanish banks.

Strong economic recovery in 1996 and 1997 was accompanied by a resurgence of deposit growth (averaging in excess of 20 percent per year) and a further deepening of bank credit to the private sector, which reached 24 percent of GDP by 1998. The broad-scale adoption of direct deposit salary payments further assisted bank penetration in the period. Growth prospects were adversely affected, however, when the Asian, Russian and Brazilian financial crises, combined with domestic electoral uncertainties, triggered a tighter financing environment, volatile interest rates, and deteriorating terms of trade. Argentina's economy contracted 3.4 percent in 1999 and has yet to evidence a recovery.

Although the Argentine financial sector generally weathered this recent period of financial stress relatively well, deposit growth slowed markedly, credit to the private sector stagnated, and the quality of bank assets deteriorated. The following analysis evaluates the relative performance and condition of domestic and foreign banks from 1997 to 2000.¹⁸

The Sample of Argentine Banks. The Argentine banks that we evaluate account for 80 to 85 percent of system assets over the sample period. The number of foreign-controlled entities ranges from fifteen to eighteen, representing 50 to 61 percent of sample assets in any given year. Of these, several were excluded from detailed analysis either because they are not active in the retail banking market or because they are so small as to be irrelevant for a broad system discussion, such that their inclusion would inappropriately affect unweighted averages. In any given year, up to seven foreign-controlled banks, or 8 percent of system assets, were excluded under these criteria. Of the remaining foreign banks, seven are considered to be recent acquisitions (since 1995), equivalent to roughly 35 percent of sample assets, and five have longer-standing local operations, representing approximately 25 percent of sample assets.

Among domestic banks, the number of privately owned institutions ranges from one to three, or 11 to 14 percent of sample assets. All are considered to be retail oriented and of adequate size for inclusion in this analysis. Only one, which holds roughly 10 percent of sample assets, remained under private domestic ownership throughout the entire period. Government-controlled banks maintain a significant presence in Argentina, despite significant privatization following the Tequila Crisis. Up to six of these banks are included in our sample in any given year, representing 29 to 36 percent of sample assets. For purposes of this analysis,

we have excluded from consideration two banks (roughly 4 percent of system assets) owing to size and business orientation.¹⁹

Balance Sheet Structure and Liquidity. The balance sheet structure and liquidity of Argentine banks shows certain similarities with the Chilean and Colombian cases. Foreign banks in Argentina, on average, dedicate a relatively larger proportion of their balance sheets to liquid assets than do private domestic banks (Table 10, Panel A). In contrast to Chile and Colombia, however, the reliance on deposit-based financing of foreign banks in Argentina is broadly comparable to their private domestic peers. They also hold a similar proportion of assets in loans, and even started the sample period with a higher loan-to-asset ratio, on average. This last point, which is consistent with the Colombian case, may reflect the relatively earlier timing of most major foreign acquisitions in Argentina and Colombia than in Chile. In Argentina, it may also reflect entry coincident with a strong economic recovery, correspondingly strong average deposit and loan growth, a higher volume of acquisitions, and a broader acquisition focus beyond just the top-tier institutions. As the macro environment deteriorated, foreign banks exhibited a sharper reduction in loans as a proportion of assets than did private domestic banks, combined with a much faster buildup of less risky, liquid investments (primarily government securities). These efforts contributed to lower loan-to-deposit ratios and enhanced liquidity, although foreign banks' average loan growth over the sample period still exceeded that of private and public domestic banks (Table 10, Panel C).

Banks acquired since 1995, as well as other foreign banks present at least since the early 1990s, exhibit more similar balance sheet structures and trends than in the other two case studies, which may reflect the earlier large scale entry into the Argentine market (Table 10, Panel B).

¹⁸ The statistics discussed in this section are compiled using a variety of sources, including the Argentine central bank and Moody's Investors Service (various years).

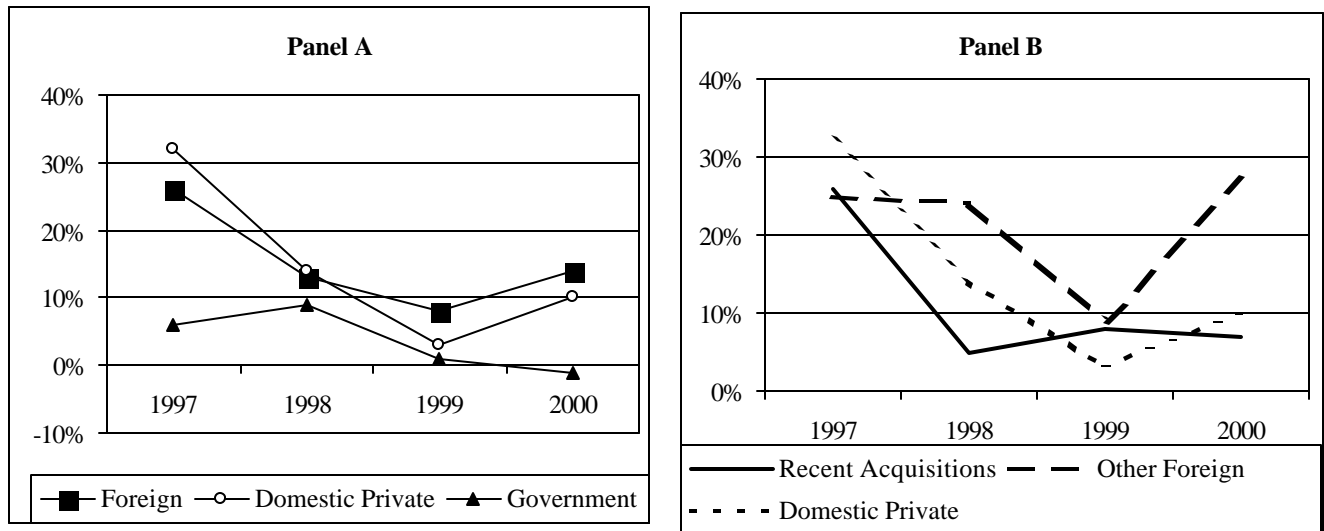
¹⁹ In particular, the national mortgage bank was excluded from consideration because of its unique financing profile and credit orientation.

| Table 10: Summary Balance Sheet Structure of Argentine Banks | | | | | | |
|------------------------------------------------------------------------------------------------|----------------|------|------------------|------|------------------|------|
| (percent of assets) | | | | | | |
| Panel A* | | | | | | |
| | Liquid Assets | | Loans | | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Foreign | 32 | 47 | 61 | 52 | | |
| Domestic Private | 36 | 39 | 59 | 55 | | |
| Government | 35 | 47 | 55 | 51 | | |
| | Total Deposits | | | | Capital | |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Foreign | 56 | 54 | 6 | 4 | 9 | 8 |
| Domestic Private | 57 | 57 | 6 | 4 | 9 | 9 |
| Government | 68 | 76 | 5 | 4 | 8 | 6 |
| Panel B** | | | | | | |
| | Liquid Assets | | Loans | | | |
| Assets | 1997 | 2000 | 1997 | 2000 | | |
| Recent Foreign Acquisitions | 34 | 47 | 60 | 51 | | |
| Existing Foreign | 29 | 46 | 63 | 53 | | |
| Domestic Private | 38 | 39 | 57 | 55 | | |
| | Total Deposits | | | | Capital | |
| | | | of which: Demand | | | |
| Liabilities | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Recent Foreign Acquisitions | 55 | 55 | 6 | 4 | 9 | 9 |
| Existing Foreign | 60 | 53 | 6 | 5 | 8 | 8 |
| Domestic Private | 50 | 57 | 6 | 4 | 10 | 9 |
| Loan and Deposit Trends | | | | | | |
| (1997 through 2000, in percent) | | | | | | |
| | Average Annual | | Average Annual | | Loans / Deposits | |
| | Loan Growth | | Deposit Growth | | 1997 | 2000 |
| Panel C* | | | | | | |
| Foreign | 22 | | 2 | | 113 | 96 |
| Domestic Private | 15 | | 22 | | 107 | 97 |
| Government | 4 | | 17 | | 81 | 69 |
| Panel D** | | | | | | |
| Recent Foreign Acquisitions | 12 | | 16 | | 113 | 93 |
| Existing Foreign | 36 | | 26 | | 108 | 102 |
| Domestic Private | 15 | | 22 | | 115 | 97 |
| Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina. | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | |

At the same time, recently acquired banks maintained significantly lower average loan and deposit growth rates than their other private sector counterparts over the sample period (Table 10, Panel D), and they curtailed deposit taking and, in particular, new lending more quickly and sharply (Charts 10 and 11, Panels B). Growth trends also appear slower to recover at these

banks, consistent with our findings in Chile and Colombia. Existing foreign banks reduced loan and deposit volumes more slowly than domestic counterparts as operating conditions deteriorate, however, and they reactivated new lending more quickly as the credit environment improved.

Chart 10: Average Loan Growth of Argentine Banks

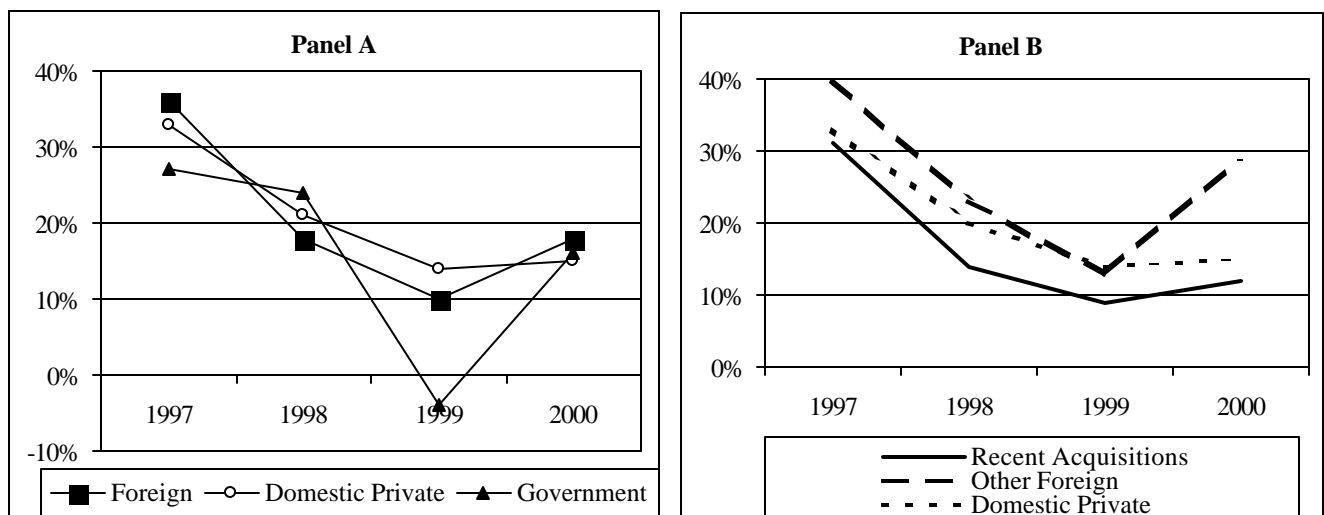


Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Chart 11: Average Deposit Growth of Argentine Banks



Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

Asset Quality. From 1997 to 2000, sample banks experienced a notable deterioration in asset quality, with the average stock of non-performing loans rising to over 10 percent of gross loans. While Argentina’s large public sector banks exhibited particularly weak asset quality indicators, private sector banks also reported a significant deterioration in credit quality over this time period (Table 11, Panel A). In contrast to both Chile and Colombia, however, asset quality deterioration was concentrated in foreign banks, whereas their private domestic peers reported better non-performing loan ratios by 2000. Foreign banks appear to have experienced either a more severe deterioration in credit quality or to have responded more quickly and aggressively in acknowledging potential losses. The combination of a deteriorating trend in the asset quality ratios of foreign banks and an improving outlook for private domestic banks – along with their shrinking number – suggests that relative credit quality trends were being driven to some extent by on-going foreign acquisition of lesser-quality domestic banks.

| Table 11: Selected Average Asset Quality Indicators of Argentine Banks | | | | | | | | |
|------------------------------------------------------------------------------------------------|------------|------|------------|------|------------|------|--------------------|------|
| (percent of total loans, except as indicated) | | | | | | | | |
| Panel A* | % of Loans | | | | | | % of NPLs | |
| | NPLs | | Provisions | | Recoveries | | Loan Loss Reserves | |
| | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 | 1997 | 2000 |
| Foreign | 6.5 | 8.7 | 2.5 | 3.8 | 0.2 | 0.3 | 83 | 78 |
| Domestic Private | 5.3 | 3.5 | 2.8 | 2.6 | 0.2 | 0.3 | 76 | 77 |
| Government | 17.8 | 18.5 | 2.1 | 2.2 | 0.2 | 0.2 | 60 | 57 |
| Panel B** | | | | | | | | |
| Recent Foreign Acquisitions | 7.0 | 8.7 | 3.0 | 3.8 | 0.3 | 0.4 | 81 | 84 |
| Existing Foreign | 5.4 | 8.7 | 2.1 | 3.8 | 0.1 | 0.1 | 84 | 69 |
| Domestic Private | 4.7 | 3.5 | 2.2 | 2.6 | n.a. | 0.3 | 71 | 77 |
| Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina. | | | | | | | | |
| * Banks sorted by ownership status at year-end 1997 and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

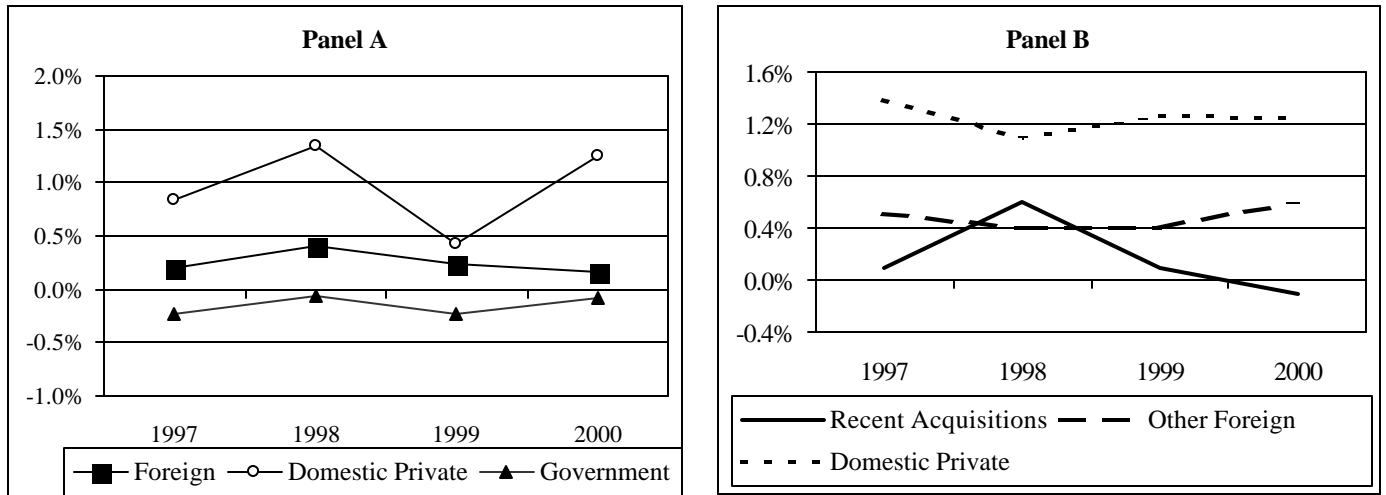
As in both prior case studies, recently acquired foreign banks entered the sample period with higher non-performing loan ratios than foreign banks with a longer-standing presence in the local market, which could reflect the absorption of entities with less sound credit risk management practices (Table 11, Panel B). As in Chile, but not Colombia, asset quality indicators at these banks continued to deteriorate throughout the sample period, perhaps as a

result of on-going acquisitions (which were absent in Colombia). Longer-established foreign banks also experienced a notable deterioration in asset quality as the macro environment deteriorated; the trend was all the more marked given their relatively stronger asset quality ratios at the onset of the sample period. This was also evident in Colombia, where more established foreign banks similarly concluded the sample period with non-performing loan ratios that were comparable to acquisition banks.

Similar trends are evident in provisioning activity. Foreign-acquired banks entered the mid- to late-1990s with higher provisioning expenses relative to loans than their peers. These banks maintained higher loan loss provisions than domestic banks throughout the sample period, but they were matched by existing foreign banks at the end of the period. Despite this accelerated provisioning activity, flat to declining loan loss reserves at foreign banks suggest that the recognition of credit losses outpaced reserve buildup, which may be indicative of relatively more aggressive charge-off practices. As in the other case studies, foreign-acquired banks entered the sample period with significantly higher recovery ratios, which they maintained or increased throughout the sample period. Across all four years, these banks recovered 1.1 percent of average loans, as compared with 0.2 percent by existing foreign banks and 0.5 percent by private domestic banks.

Earnings. Foreign-controlled banks consistently generated weak returns over the sample period, and they significantly under-performed private domestic banks, although not state banks (Chart 12, Panel A). This reflects somewhat weaker net interest revenues, and higher provisioning and operating expenses.

Chart 12: Return on Average Assets of Argentine Banks



Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina.

Panel A: Banks sorted by ownership status at year-end 1997, 1998, 1999 and 2000.

Panel B: Historical data on banks sorted by ownership status as of year-end 2000.

As is evident in Chart 12, Panel B, all foreign banks, whether long present in the local market or recent entrants, performed poorly, on average, relative to the remaining large private bank under domestic control. As in Chile, recent acquisitions exhibited particularly weak performance as a result of heavy provisioning expenses and declining net interest margins (consistent with a pronounced and retrenchment from credit activities). These banks also appear to have been relatively more successful than their longer-established peers in reducing operating expenses over the sample period (Table 12, Panel B), which might point to enhanced returns in the future. Consistent with credit and deposit growth patterns, longer-established foreign banks benefited from rising net interest flows and generated relatively strong operating revenues; this may reflect the absence of distracting merger issues. These banks also maintained relatively expensive cost structures, however.

| Table 12: Selected Profitability Indicators for Argentine Banks | | | | | | | | |
|------------------------------------------------------------------------------------------------|---------------------|------|------|------|--------------------------------|------|------|------|
| (percent of average assets) | | | | | | | | |
| Panel A* | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 4.6 | 4.8 | 4.6 | 4.7 | 2.5 | 3.0 | 2.7 | 2.6 |
| Domestic Private | 5.2 | 4.9 | 4.7 | 4.9 | 2.5 | 3.3 | 3.4 | 2.5 |
| Government | 3.6 | 4.7 | 2.6 | 3.3 | 2.6 | 2.8 | 2.3 | 2.4 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Foreign | 1.6 | 1.6 | 1.8 | 2.0 | 5.5 | 6.0 | 5.5 | 5.2 |
| Domestic Private | 1.7 | 1.2 | 2.0 | 1.5 | 5.2 | 5.8 | 5.7 | 4.5 |
| Government | 1.2 | 1.5 | 0.8 | 1.0 | 6.0 | 7.1 | 4.6 | 5.0 |
| Panel B** | | | | | | | | |
| | Net Interest Income | | | | Non-Interest Operating Income | | | |
| Income | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 4.8 | 4.7 | 4.1 | 4.2 | 2.5 | 2.9 | 2.4 | 2.4 |
| Existing Foreign | 4.6 | 5.0 | 5.8 | 5.6 | 2.7 | 3.4 | 3.7 | 2.9 |
| Domestic Private | 4.7 | 3.9 | 4.1 | 4.9 | 2.1 | 1.9 | 2.5 | 2.5 |
| | Provisions | | | | Non-Interest Operating Expense | | | |
| Expense | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| Recent Foreign Acquisitions | 1.9 | 1.6 | 1.7 | 2.0 | 5.4 | 5.8 | 5.0 | 5.1 |
| Existing Foreign | 1.4 | 1.6 | 2.3 | 2.1 | 5.7 | 6.5 | 6.6 | 5.6 |
| Domestic Private | 1.3 | 0.7 | 1.5 | 1.5 | 4.3 | 4.0 | 4.6 | 4.5 |
| Source: Authors' calculations, based on data from the Banco Central de la Republica Argentina. | | | | | | | | |
| * Banks sorted by ownership status at 1997, 1998, 1999, and 2000. | | | | | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | | | | | |

Capital Adequacy. In the area of capital adequacy, foreign banks in Argentina (as in Colombia) appear to have maintained capital-to-asset ratios that are comparable to, if slightly lower than, their privately held domestic counterparts (Table 13, Panel A). Again, state banks notably under-performed in this regard. As in the other countries, foreign banks witnessed a moderate deterioration in total capital levels relative to the asset base over the sample period, probably as a result of heavier provisioning expenses, merger integration costs, and perhaps a different calculus in the efficient allocation of capital.

| Table 13: Average Capital Ratios of Argentine Banks | | | | |
|-----------------------------------------------------------------------------|------------------|------|--------------------------|-------|
| (percent of assets and risk-weighted assets, respectively) | | | | |
| | Capital / Assets | | Total Risk-Based Capital | |
| | 1998 | 2000 | 1998 | 2000 |
| Panel A* | | | | |
| Foreign | 8.90 | 8.31 | 17.12 | 17.56 |
| Private Domestic | 8.89 | 9.00 | 17.75 | 16.71 |
| Government | 8.18 | 6.04 | n.a. | n.a. |
| Panel B** | | | | |
| Recent Foreign Acquisitions | 9.21 | 8.54 | 17.99 | 18.17 |
| Existing Foreign | 8.31 | 7.91 | 15.90 | 16.50 |
| Domestic Private | 9.64 | 9.01 | 17.19 | 16.71 |
| Source: Banco Central de la Republica Argentina. | | | | |
| * Banks sorted by ownership status at year-end 1998 and 2000. | | | | |
| ** Historical data on banks sorted by ownership status as of year-end 2000. | | | | |

As in Colombia, but not Chile, foreign acquired banks entered the period with higher capital ratios than longer-standing foreign banks, which could reflect higher recapitalization needs to effect balance sheet cleansing (Table 13, Panel B). These banks also witnessed a sharper deterioration in capital levels as a proportion of assets throughout the sample period; this pattern is consistent with dampened earnings stemming from on-going high provisioning and merger integration expenses. They remained above their longer-standing foreign counterparts, however.

As in the other two countries, foreign banks improved their risk-based capital ratios over the sample period, exceeding the levels maintained by domestic banks. This is consistent with the trend toward lower-risk asset holdings at these banks. It also suggests that foreign and domestic banks may differ in their ability to efficiently allocate capital.

Overall Assessment. Our overall assessment is that as in Chile, the Argentine financial sector as a whole weathered this economic downturn relatively well. Argentina differs from the other case studies, however, in the broader penetration of foreign banks, the winnowing presence of large, domestically owned banks, and the still-significant state bank presence. The most meaningful results are therefore derived from the evaluation of recent foreign entrants as compared with longer-established foreign players.

Overall, these banks exhibit broadly similar trends. As in Chile and Colombia, however, recently acquired banks retrenched from deposit and loan markets more quickly and more markedly than other local foreign players, and they re-engaged more slowly. This may be due to the costs and energies associated with merger integration, in which case it may be a temporary short-run phenomenon as management carries out balance sheet cleansing and a reconciliation of risk-management and operational practices. This would be consistent with the higher non-performing loan ratios reported by these banks and heavier provisioning expenses, all of which weighed on performance. However, healthier balance sheets and enhanced cost management may point to stronger, more sustainable returns in the longer term.

IV. Conclusions

Our analysis shows that foreign and private domestic banks do not exhibit strong systematic differences in condition and performance over the sample period, although the broader BFSR analysis indicates some marginal relative improvement of the ratings of foreign-acquired banks compared to domestic banks over time. Across all measures, both foreign and private domestic banks exhibit clearly superior health relative to state banks. The case studies, however, indicate some noteworthy distinctions between foreign and private domestic banks with regard to balance sheet structure, loan growth, measures to address asset quality deterioration, and loss-absorption capacity.

In terms of balance sheet structure, foreign banks rely on deposit-based funding to a lesser extent than private domestic banks, which could reflect access to alternative funding sources or difficulty in attracting deposits away from entrenched local competitors. Foreign and private domestic banks have comparable shares of lower-cost demand deposits, however. Foreign banks maintain higher shares of liquid assets, perhaps as a result of a greater reliance on potentially more volatile non-deposit borrowings. Foreign banks also tend to maintain similar or lower loan shares and similar or weaker overall liquidity, as measured by loan-to-deposit ratios.

Across all three countries, foreign banks manifest consistently stronger average loan growth than private domestic banks. This is particularly true for existing foreign banks, which over the sample period show less reduction in credit growth, on average, with the onset of weakening economic conditions than private domestic banks, followed by stronger growth with

macroeconomic improvement. The higher relative share of liquid assets maintained by foreign banks may support such a redeployment of assets. Recently acquired foreign banks undertook more defensive behavior; loan growth consistently ranked below that of established foreign banks and private domestic banks and they experienced a more rapid build-up in liquid assets. This behavior is consistent with a greater initial focus on operational restructuring, balance sheet cleansing, and integration of local operations with the parent bank, rather than on market share expansion and growth.

With respect to trends in asset quality, our results are mixed in terms of differences in current levels and trends in non-performing loan ratios across foreign and domestic banks. Ambiguous results may not be altogether surprising, however, given the traditional difficulties in evaluating bank asset quality by outside analysts, particularly in an emerging markets context: definitions of problem loans across countries often vary and individual banks within a country may apply the same standard differently. Gaining a better understanding of differences in asset quality across ownership types would require the analysis of much more detailed data, which is beyond the scope of this review.

More concrete findings concern provisioning for bad loans. Foreign banks have higher loan provisioning expenses and comparable or higher reserve coverage of non-performing loans relative to private domestic banks, which might suggest tighter credit review standards. Foreign banks also report higher average recoveries, reflecting higher provisions; this may be attributable to more aggressive or effective workout procedures – or simply higher average charge-offs. These observations characterize recently acquired banks in particular, which also have higher initial levels of problem loans and correspondingly higher provisioning and recoveries over the period. Overall, we conclude that foreign banks appear to take more aggressive actions in addressing asset quality deterioration.

In terms of earnings, foreign banks had similar or weaker overall profitability relative to domestic banks over the sample period. Foreign banks tend to have similar or weaker net interest margins. Non-interest income levels as a percent of total assets vary widely across the three countries, ranging from relatively high in Chile (and much above those of domestic

banks), to relatively low in Argentina (but comparable to domestic bank levels).²⁰ Foreign banks also report comparable or higher non-interest expense.

Finally, with respect to loss-absorption capacity, foreign banks maintain higher risk-based capital ratios than private domestic banks across all three countries, notwithstanding similar or weaker profitability levels. This is particularly notable in cases in which foreign banks have suffered large losses, such as Colombia. Higher risk-based ratios reflect foreign banks' relatively greater investment in liquid and lower-risk assets. Moreover, foreign banks' higher risk-based capital ratios, in light of generally lower capital-to-assets ratios in Argentina and Colombia, may point to potential differences between foreign and domestic banks in the efficient allocation of capital.

Given the wide range of relevant institutional and structural variables, the relatively short gestation period of significant foreign ownership, and the difficult macroeconomic conditions existent over the sample period, caution is warranted in generalizing our findings from the recent Latin American experience to the broader implications of foreign ownership for domestic financial stability. That said, some preliminary observations can be made.

First, the lack of strong differences in condition and performance between foreign and private domestic banks may suggest that there is space for strong domestic and foreign institutions to compete effectively in local banking markets.

Second, consistently stronger average loan growth by foreign banks supports similar recent findings that foreign banks do not necessarily “cut and run” during periods of economic difficulty in emerging markets. While recently acquired banks had lower loan growth, their focus on balance-sheet repair could potentially provide the foundation for future credit growth at a level more similar to that of longer-standing foreign banks.

Third, some of our case study findings challenge the “cherry-picking” critique that is often aimed at foreign banks. While existing foreign banks began the period with similar or lower average non-performing loan ratios relative to private domestic banks, which is suggestive of “cherry-picking”, their provisioning levels were relatively higher than those of the domestic institutions during the period. If relative provisioning reflects relative deterioration, it is hard to conclude that the portfolios of foreign banks consist of significantly more

²⁰ This result may reflect the relatively greater development of Chilean financial markets, where foreign banks might be better able to exploit comparative advantages in such areas as trading, investment banking, and asset management.

creditworthy borrowers than those of private domestic banks. Alternatively, if foreign banks do target low-risk clients, higher provisioning at foreign banks suggests that private domestic banks may be under-provided against potential loan losses.

Generally higher provisioning at foreign banks, particularly in the immediate aftermath of acquisitions, may suggest that foreign banks apply tighter credit review standards to their portfolios. Their comparable or higher reserve coverage of bad loans supports this conclusion. If this is the case, foreign bank participation may have broader positive efficiency implications, in that weaker credits are identified earlier and banks more quickly reallocate resources from weaker to stronger credits. A more qualitative review of foreign and domestic banks' credit review standards would be necessary to support this point.

Finally, foreign banks exhibited comparable or weaker earnings performance over the period, while maintaining higher risk-based capital ratios than their domestic counterparts. This finding points to a strong commitment to the local presence by head office, and it further undermines the "cut and run" critique.

Taken together, our findings that foreign banks have consistently stronger average credit growth, take more aggressive action to deal with asset quality deterioration, and possess the capacity and willingness to sacrifice short-term profitability for longer-term soundness suggest that foreign ownership may have quite positive implications for financial sector stability, development, and efficiency. Before extending these conclusions too far, however, more extensive analysis of these issues is clearly warranted. First, these ownership changes in Latin America remain relatively recent, and they have taken place during a rather inhospitable macroeconomic environment. The longer-term competitive dynamics of substantially increased foreign ownership will only become fully evident over time. Second, a fuller treatment of the structural and institutional differences across countries should inform this debate considerably. Third, our analysis is based on the average bank experience; a more explicit segregation of institutions by such variables as size, customer base, and national or regional scale would shed greater light on observed institutional differences. Fourth, this analysis is largely centered on quantitative rather than qualitative indicators of bank condition: a better understanding of qualitative differences in risk management and internal controls, particularly in the area of credit risk management, would also be informative. Finally, a more in-depth analysis of loan portfolio composition and asset quality trends would be useful to better gauge the issue of

whether foreign and domestic banks systematically differ in their lending strategies and customer orientation.

References

- Banco Central de la Republica Argentina. *Estadística Financieras* (various issues). Buenos Aires.
- Barth, James, Gerard Caprio Jr. and Ross Levine. 2001. "The Regulation and Supervision of Banks Around the World." Policy Research Working Paper 2588. Washington: World Bank.
- Barajas, Adolfo, Roberto Steiner, and Natalia Salazar. 2000. "The Impact of Liberalization and Foreign Investment in Colombia's Financial Sector." *Journal of Development Economics* 63(1): 157-96.
- Burdisso, Tamaro, Laura D'Amato, and Andrea Molinari. 1998. "The Bank Privatization Process in Argentina: Toward a More Efficient Banking System?" Unpublished paper, Banco Central de la República Argentina, October.
- Claessens, Stijn, Asli Demirguc-Kunt, and Harry Huizinga. 1998. "How Does Foreign Entry Affect the Domestic Banking Market?" Policy Research Working Paper 1918, June. Washington: World Bank.
- Clarke, George, Robert Cull, Laura D'Amato, and Andrea Molinari. 1999. "On the Kindness of Strangers? The Impact of Foreign Entry on Domestic Banks in Argentina." Unpublished paper, August. Washington: World Bank.
- Dages, B. Gerard, Linda Goldberg, and Daniel Kinney. 2000. "Foreign and Domestic Bank Participation in Emerging Markets: Lessons from Mexico and Argentina." Federal Reserve Bank of New York *Economic Policy Review* 6(3): 17-36.
- Goldberg, Linda. 2001. "When Is U.S. Bank Lending to Emerging Markets Volatile?" National Bureau of Economic Research Working Paper 8137, February. Cambridge, Mass.
- Gruben, William, Jahyeong Koo, and Robert Moore. 1999. "When Does Financial Liberalization Make Banks Risky? An Empirical Examination of Argentina, Canada, and Mexico." Federal Reserve Bank of Dallas Center for Latin American Economics Working Paper 0399, July.

- Hancock, Diana, and James Wilcox. 1998. "The Credit Crunch and the Availability of Credit to Small Business." *Journal of Banking and Finance* 22 (August): 983-1014.
- Martinez Peria, Maria Soledad, and Sergio Schmukler. 1999. "Do Depositors Punish Banks for 'Bad' Behavior? Market Discipline in Argentina, Chile, and Mexico." Policy Research Working Paper 2058, February. Washington: World Bank.
- Moody's Investors Service. Latin American Bank Financial Strength Ratings. 1995 – 2001.
- Moody's Investors Service. *Moody's Banking Statistical Supplements for Argentina, Chile, and Mexico*. Various issues.
- Palmer, David. 2000. "U.S. Bank Exposure to Emerging-Market Countries during Recent Financial Crises." *Federal Reserve Bulletin*, (February): 81-96. Board of Governors of the Federal Reserve System.
- Peek, Joe, and Eric Rosengren. 2000. "Implications of the Globalization of the Banking Sector: The Latin American Experience." *New England Economic Review* (September / October): 45-61.
- Superintendencia Bancaria de Colombia. *Estadísticas Financieras* (various issues). Bogotá.
- Superintendencia de Bancos e Instituciones Financieras de Chile. *Información Financiera*, (various issues). Santiago.
- Swabey, Rue, Felipe Hernandez, and Stephen Edkins. 2000. "Financial Sector Review: Intensive Care." *Latin American Equity Research* (May 10). Santander Investment Securities.