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**Foreign Banks' Entry and Departure:
the Recent Brazilian Experience (1996-2006)**

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Foreign Banks' Entry and Departure: the Recent Brazilian Experience (1996-2006)

Pedro Fachada*

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Abstract

There is a broad literature documenting the recent trend towards a larger foreign banking presence in both mature and emerging markets. Less documented are the few situations where banking internationalization has contracted. Brazil is one such case. After a large-scale entry in the late 90s, foreign banks have retreated, being absorbed by their domestic competitors. This paper examines these opposite trends and associates de-internationalization mainly with lower relative profitability of foreign firms. Bank-level panel data investigates the determinants of earnings and costs according to ownership, providing evidence that greater foreign presence contributed to curb domestic banks' costs, but not their profitability. This assessment is consistent with widespread evidence that internationalization forces local banks to operate more efficiently.

Keywords: Brazilian Banks, Banking Internationalization

JEL Classification: G21

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1. Introduction

Over the second half of the 1990's and the first half of this decade, banking in emerging markets witnessed significant ownership changes, particularly regarding a growing foreign presence. In a recent paper, Cull and Martinez Peria (2007) provide evidence of such trend, showing that the average share of banking assets held by foreign-owned institutions in 104 less-developed countries nearly doubled between 1995 and 2002, growing from 18% to 33%. Latin America, Eastern and Central Europe led the entry process, which was homogeneous neither across regions nor across countries within each region. In several emerging countries, such as Mexico, Hungary and the Czech Republic, foreign banks currently provide more than 3/4 of banking services in the economy.

The forces driving foreign banking presence are not very different in mature and emerging economies, although the latter present some distinctiveness. The process was generally triggered by financial deregulation, relaxation of entry barriers, globalization and developments in information technology and communications. In emerging markets, the need to recapitalize the banking industry in the aftermath of banking crises and the implementation of privatization programs were additional forces. Pragmatically, entry barriers were more radically eliminated in situations of chronically undercapitalized banking systems. From the perspective of banks, international expansion was a vehicle to achieve risk diversification and to benefit from economies of scale.

Changes in ownership structure have significant implications for banking intermediation and stability, and are the focus of a broad empirical literature. Considerations include but are not limited to efficiency, competition, potential for systemic crises and access to banking services and credit products. Empirical evidence in emerging economies confirms an improvement in banking efficiency associated with foreign entry (in several cases accompanied by a lower presence of publicly-owned institutions), but is less conclusive in terms of effects on credit availability. While some analyses emphasize detrimental effects caused by selective lending to low-risk borrowers by foreign banks, others suggest that they would more easily promote an overall increase in credit, especially in adverse domestic circumstances. There is also strong evidence that internationalization improves banking soundness and reduces the incidence of banking crises.

This study resumes the analysis of foreign banking presence in emerging economies, using evidence from Brazil for the period 1996-2006. In the wake of inflation stabilization in 1994, the Brazilian banking sector underwent a radical adjustment in response to the threat of a systemic crisis. Changes included privatization of inefficient public banks and transfer of control of unsound private banks. Along this restructuring process, internationalization played a crucial role.

After an intense entry process that spanned until the early years of this decade, internationalization has retreated, with several foreign institutions either departing or exchanging their sole operations for minority stakes in local financial firms. The exit can be mainly attributed to low earnings relative to the industry, although other factors have likely contributed (macroeconomic volatility, risk-aversion and the need to concentrate operations in certain home countries to face consolidation trends).

The paper explores the assumption that higher relative profitability of local banks was a consequence of cost efficiencies attained during the process of foreign penetration of the 90s, and the “quiet life” hypothesis offers a plausible explanation – once market conditions changed, local banks were forced to identify and adopt ambitious cost saving initiatives. With lower overhead costs, they were better prepared to benefit from the recent macroeconomic environment, marked by fast credit expansion and still attractive lending margins. In general, they retained informational, geographic and distribution advantages over their foreign competitors, and possibly more advanced technological platforms (thanks to the need to speed up transactions during the high inflation years). These advantages facilitated credit growth, especially to the low-end consumer market, which has been leading the expansion.

The study is organized as follows: Section 2 discusses the empirical literature on the implications of foreign banking presence in emerging markets, highlighting recent evidence gathered for Latin America in general and Brazil in particular. In section 3, foreign banking penetration in Brazil is quantified, based on foreign direct investment data and the market share held by international banks. Section 4 discusses with some detail how foreign banking entry and exit have evolved. Section 5 decomposes profitability of foreign and private domestic banks using a standard accounting framework, and associates the profitability gap mainly to cost differentials. Next, section 6 presents bank-level panel estimations for the determinants of earnings and operating costs according to ownership, highlighting, among

other factors, the roles played by exchange rate, credit orientation and foreign competition in explaining profitability differentials. The paper ends with a short conclusion.

The empirical analysis concentrates on the entire private commercial banking industry. In the Brazilian banking structure, these are either universal banks with commercial activities or entities directly structured as independent commercial banks. Investment banks are not considered, although in practice some universal banks with commercial activities operate more like investment banks – they do not take deposits nor grant loans, have no branch networks and concentrate on proprietary trading and fee-generating services. Public banks, which still account for about 1/3 of Brazilian banking assets despite privatization efforts, are not examined here, as determinants of their profitability and costs are very specific.

2. Foreign Banks in Emerging Economies: What Do We Know?

Empirical studies on foreign banking presence in emerging markets concentrate on three broad effects: (i) efficiency; (ii) lending; and (iii) systemic stability. International experience seems to confirm the potential benefits of foreign banking entry on cost efficiencies and banking stability, and is less conclusive in regard to lending considerations.

This section summarizes the main findings, based on cross-country evidence rather than individual case studies. Evidence drawn from Latin America is highlighted, and a brief survey for Brazil concludes

2.1 Efficiency

Demirgüç-Kunt and Huizinga (1999) and a follow-up work [Claessens, Demirgüç-Kunt and Huizinga (2001)] were the pioneer cross-country studies about the relationship between banking efficiency and foreign ownership. Using data for 80 countries in the period 1988-1995, the studies showed that foreign banks operating in less-developed countries attained higher profitability than their domestic competitors. Moreover, foreign competition promoted both a reduction in overhead costs and in profitability of local banks, a result consistent with the view that foreign entry improves banking efficiency.

The authors offered alternative interpretations to their findings. In particular, they asserted that foreign banks possess a technological advantage in the host country that prevails over any potential informational disadvantage. Once the industry is opened up to foreign participation, local banks benefit from the superior banking practices introduced by their competitors. Or else, the more competitive environment may induce local banks' managers to sacrifice their "quiet life" and seek cost saving opportunities. Both mechanisms contribute to boost efficiency. Interestingly, the authors found that it is the potential competitive threat (measured by the number of foreign banks) rather than their market share that triggers the defensive behaviour of local banks.

Of note, the authors did not distinguish between public and private ownership of domestic banks, and their findings could partly be associated to the larger presence of notorious inefficient public banks in less-developed countries. Moreover, their dataset covered a period of still embryonic banking internationalization. Several later researches, however, tended to support the initial findings. For example, using an even larger sample of countries with data for the period 1995-2002 and controlling for public banks, Micco, Panizza and Yañes (2005) confirmed that foreign banks achieve higher profitability and lower overhead costs than private domestic banks.

In the Latin American context, Martinez Peria and Mody (2004) used data from five countries for the period 1995-2000 to assert that foreign banks in general practiced lower credit margins compared to domestic banks. The finding was particularly true for foreign institutions that chartered a new local bank instead of taking over an already established one. The increase in foreign presence did not have implications on credit margins, but contributed to reduce operating costs, a fact consistent with the "quiet life" hypothesis and the view that opening up the market enhances cost efficiencies. A different perspective is presented by Levy Yeyati and Micco (2003), which used a broader sample of Latin America countries (including Brazil) during 1995-2002 to conclude that foreign entry did not foster banking competition.

2.2 Lending

A second line of considerations focuses on differences in lending patterns across domestic and foreign banks, being it an issue of greater controversy. As part of a larger parent organization, foreign banks operating in less-developed countries tend to have a more diversified funding

capacity, and consequently more stable lending behaviour compared to local banks. Moreover, credit availability tends to be relatively insulated from domestic factors (albeit it may respond to adverse developments in the home country). On the negative side, foreign banks may be more prone to pick-up borrowers with better credit records, therefore constraining credit to certain sectors of the economy (for instance, small and medium enterprises). Still, some researches emphasize that eventual differences in lending patterns may stem from differences in entry strategies, timing and balance sheet factors instead of ownership aspects.

Evidence on the negative effects is presented by Detragiache, Gupta and Tressel (2006). The authors studied how foreign banking affected credit availability in 89 less-developed countries over the 90s, showing that a larger foreign presence translated into less credit to the private sector and lower credit growth. The authors also showed that high-end customers might benefit, at the expenses of the other credit seekers.

A different point of view is put forward by Haas and Lelyveld (2003), which used data from 10 countries in emerging Europe for 1993-2000 to conclude that foreign banks sustained a more stable credit supply – especially during crises periods – compared to domestic banks. A distinction, however, was made according to time of entry – the stabilizing effect was limited to long established foreign banks, as new entrants that took over local institutions tended to behave as their domestic competitors.

Giannetti and Ongena (2005) proposed a different approach, using firm-level rather than bank-level data to assess the impact of foreign presence on credit accessibility. The sample included 14 emerging countries in Europe, covering the period 1993-2002. The authors stated that foreign banks' lending contributed to boost borrowers' sales, even in the case of small companies. Similarly, Clarke, Cull and Martinez Peria (2006) conducted a survey with over 3,000 companies in 36 developing countries to conclude that in general the private sector reported fewer difficulties to access credit in economies where foreign banking presence was stronger.

Moving to Latin America, Dages, Goldberg and Kinney (2000) showed that foreign banks registered higher (and less unstable) credit growth than domestic banks in Argentina and Mexico over the second half of the 90s. Moreover, foreign presence contributed to greater lending stability in periods of macroeconomic turmoil (the “tequila” crisis). Similar conclusions were drawn by Crystal, Dages and Goldberg (2001), which observed that foreign banks in

Argentina, Chile and Colombia presented higher credit growth, as well as higher loans provisioning and recovery rates, compared to domestic banks. The authors further distinguished lending patterns between long and recently established foreign banks, with the later showing lower credit growth, a possible consequence of the fragile balance sheet conditions of banks that were eventually taken over.

Finally, Clarke, Cull, Martinez Peria and Sanchez (2005) investigated the impact of foreign ownership on lending to small enterprises in four Latin American countries over the mid-90s. Although the study indicated that foreign banks effectively lent less to that market segment relative to domestic banks, this behaviour is fully caused by small foreign banks – large foreign institutions were actually the category with the highest exposure to small business.

2.3 Systemic Stability

In regard to systemic stability, Demirgüç-Kunt, Levine and Min (1998) demonstrated that for a sample of 80 developed and developing countries over the period 1988-1995, foreign banking presence was associated with a lower incidence of banking crises. Cull and Martinez Peria (2007) showed, however, that less-developed countries that faced a banking crisis between 1995 and 2002 tended to have stronger foreign banking presence. The authors also pointed out that banking crises were circumstances that facilitated foreign entry – although new entrants were frequently only able to acquire distressed institutions.

Using data for eight Latin America countries, Levy Yeyati and Micco (2003) found that recent banking internationalization (together with banking consolidation) contributed to induce lower levels of risk taking by the banking system, thus helping to promote systemic stability. Interestingly, the authors showed that domestic banks are more conservative in their attitudes towards risk than foreign banks.

2.4 Evidence for Brazil

For Brazil, there are only a few studies analyzing the implications of foreign entry on the banking market. Bevilaqua and Loyo (1998) conducted a pioneer research and estimated a cost function for a sample of banks with quarterly data for 1995-1998, showing that an improvement in banking efficiency (especially for large retail banks, and less so for non-retail

and medium/small institutions) took place parallel with the opening up of the banking market to foreign competition. Despite supporting the “quiet life” idea, it is unclear for the authors if the trigger factor that forced banks to take cost saving measures was foreign competition or the loss of inflation revenues caused by inflation stabilization.

Guimarães (2002) used the methodology developed by Claessens *et al.* (2001) to estimate the impact of foreign banking entry on retail banks’ profitability and costs. With annual data for 1995-2001, the author found that private domestic banks posted in the period higher recurrent earnings (after adjusting for extraordinary items) than foreign banks. Furthermore, foreign entry increased rather than decreased domestic banks’ profitability. Finally, entry did not have implications on banking costs, contradicting the “quiet life” view.

Focusing on the broader implications of the privatization of state-owned banks, Beck, Crivelli and Summerhill (2005) estimated the determinants of banks’ profitability and costs, using dummy variables to capture ownership differences. The quarterly data covered the period from 1995 to 2003. The coefficients of the dummies suggested that foreign banks experienced both lower overhead costs and lower profitability than private domestic banks. Also in the context of privatizations, Nakane and Weintraub (2004) studied the determinants of banking productivity under different ownership conditions, and concluded that foreign banks reached higher average productivity than private domestic banks over the period 1990-2002.

3. Foreign Capital in Brazilian Banking: An Overview (1996-2006)

In the aftermath of the 1994 inflation stabilization, the Brazilian banking system faced the risk of a systemic crisis. Some large private institutions became insolvent, and the entire publicly-owned segment was in disarray. Against this backdrop, the government launched a series of policy initiatives, in which attracting foreign capital was a major component. In response, several cross-border takeovers took place, mainly targeting the retail market.

In the early years of this decade, the process of banking internationalization reversed. Many newcomers either exited the market or exchanged their individual operations for minority stakes in local financial organizations. In some cases, even long established banks succumbed to high competition and low relative profitability and discontinued their local activities.

Table 1 and Figure 1 present two broad measures of the internationalization and subsequent de-internationalization trends in Brazilian banking. In Table 1, Foreign Direct Investment (FDI) in banking is shown.¹ Substantial inflows started in 1997, peaked in 1998 and 2000 and extended until 2001-2002. In the 2003-2005 period, banking inflows dried up, only resuming some strength in 2006. But FDI outflows also became significant in the more recent past. In 2003 and 2005, for instance, outflows largely exceeded inflows, and net FDI was relatively unimportant for the whole 2003-2006 period.

Table 1
FDI in Brazilian Banking (1996-2006)

	Inflow	Outflow	Net
1996	379	3	376
1997	1,596	4	1,592
1998	5,916	187	5,729
1999	1,677	208	1,469
2000	6,352	330	6,022
2001	1,975	406	1,569
2002	1,172	209	963
2003	386	1,867	(1,481)
2004	847	6	841
2005	889	1,569	(680)
2006	2,647	1,124	1,523

Source: Banco Central do Brasil.

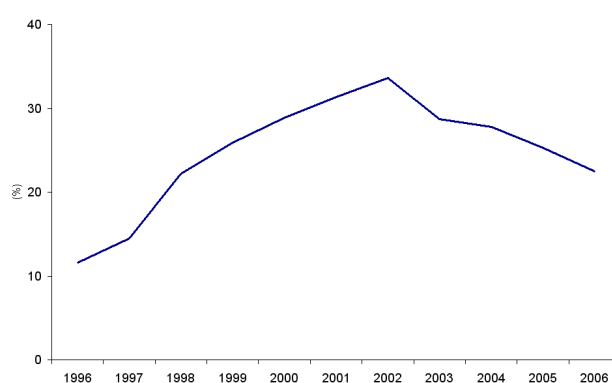
FDI outflows only partially capture the diminishing role of foreign banks in Brazil. Several transactions involving the transfer of ownership from foreign to domestic hands did not cause FDI outflows (for instance, when there was the swap of a controlling stake for a minority shareholding in a local bank). Figure 1 complements the information on banking FDI, showing the share of foreign institutions in total banking equity. The chart confirms that a major wave of internationalization spanned until 2002, when foreign participants held 33.6% of the banking market (as against 11.6% in 1996). Afterwards, foreign presence retreated to the levels of end-90s, standing at 22.5% in 2006.

It is interesting to note that foreign banks in Brazil never reached the importance seen in other Latin America countries. Cull and Martinez Peria (2007) report that the market share of foreign banks in 2002 stood at 94% in Uruguay, 86% in Peru, 62% in Mexico and 45% in Chile. In

¹ Inflows refer to banking only and outflows include banking and other financial services except insurance and pension funds. Thus, the two columns are not fully comparable. As banking is by far the largest segment in the financial services industry, eventual distortions can be ignored.

Argentina, foreign banks held approximately half of the market before the 2002 banking crises. Although timing, players and motivations behind internationalization were basically the same in all countries of the region, entry did not reach a comparable dimension in Brazil due to its larger and more diversified banking market, the barrier posed by big and capitalized domestic financial groups and, last but not least, the fact that the public sector retained a sizeable market share in spite of privatization efforts.

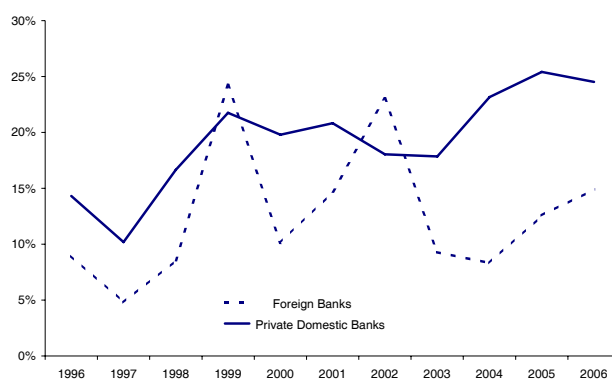
Figure 1
Foreign Banks in Brazil - Market Share (1996-2006)



Source: Banco Central do Brasil.

To complement this overview, Figure 2 compares returns on equity (ROE) of foreign and private domestic banks. The data source and methodology are detailed in section 5. For now, it is sufficient to note that domestic banks posted higher returns compared to foreign banks in every year shown but 1999 and 2002. Furthermore, while ROE for domestic banks is relatively stable, ROE for foreign banks display quite a large volatility.

Figure 2
ROE – Foreign and Private Domestic Banks (1996-2006)



Source: Own calculation based on data from Banco Central do Brasil.

4. Foreign Banks in Brazil: From Eager Entry to Gradual Departure

4.1 Restructuring Years (1994-1996)

The inflation stabilization of July 1994 (so-called Real Plan) marks a watershed in the structure of the Brazilian banking system. Until then, the high inflation environment contributed to support an oversized industry, which benefited from the inflation tax collected from holders of less-than-perfectly indexed deposits and from the intermediation of bank payments and transfers. The sector was extremely fragmented with 244 banks, including dozens of marginal players that made their living entirely from inflation. Long-term private credit was virtually non-existent.

Another characteristic of the pre-stabilization banking system was the large presence of public institutions, controlled either by the federal or by sub-national governments. All 27 state governments but two owned a commercial bank, and some even had more than one. In total, 34 official institutions accounted for around 50% of banks' assets and 60% of loans, albeit much less (34%) in terms of equity, illustrating their endemic undercapitalization. Partly, the inflated public segment filled the lack of credit sources, lending to certain favoured activities (agriculture, for example) or government programs at subsidized interest rates. At the sub-national level, inadequate credit controls, poor governance and politically motivated loans were widespread. High inflation, however, masked the quality of balance sheets, while occasional rescues only postponed the imbalances.²

The regulatory environment towards foreign entry was very restrictive, in practice reserving the market for domestic players. Some international banks were present, for the most part having set up their roots in Brazil long before the more restrictive environment of the 70s and 80s. **Citibank**, **BankBoston** and **Banco Sudameris** (a subsidiary of **Banca Commerciale Italiana**) were the largest, ranking only in the twenties among leading banks. As their private domestic counterparts, foreign presence was also fragmented, with as many as 33 institutions (not including minority stakes) sharing roughly 10% of the market.³ Activities concentrated on external trade financing and corporate banking to multinational clients, with the largest banks

² See Ness Jr. (2000) and Beck, Crivelli and Summerhill (2005) for more details.

³ There were officially 37 foreign banks in 1994, but 4 can be considered double-counting, as **Citibank**, **BankBoston**, **Lloyds Bank** and **JP Morgan Bank** operated both a branch of the parent bank and a local subsidiary.

secondarily targeting high-income individuals. With some notable exceptions, few ventured into consumer financing.⁴

Foreign banks' expansion efforts were legally restricted. The climax of the protectionism bias came with the 1988 Constitution, which introduced a transitory rule explicitly banning new branches or capital increases by foreign financial institutions, except in the case of international agreements, reciprocity or decisions "made in the interest of the Brazilian government". In this situation, a case-by-case authorization had to be issued by an executive order of the President.⁵

The impact of disinflation on the banking industry was substantial. Inflation earnings are estimated to have accounted for nearly 40% of banks' income during the pre-stabilization period, or 4% of GDP. With consumer inflation contracting from 2,477% in 1993 to 22% in 1995 (the first full year of single-digit monthly inflation rates), the share of financial institutions in GDP diminished from 15.6% to 6.9%.⁶

Banks soon turned their attention to lending. The sharp reduction in nominal interest rates, the extension of tenures and the more stable environment boosted borrowers' appetite. However, banks had little experience with credit concession and risk analysis. At the same time, the concern that an expansion in aggregate demand – partly due to credit expansion – could refuel inflation led the Central Bank to adopt very restrictive monetary conditions in the aftermath of the stabilization. These included a 100% reserve requirement on demand deposits growth and a 15% requirement on loans, in practice curbing banks' funding capacity. The outlook aggravated with the spillovers from the Mexican crisis, which led to an increase in interest rates in the beginning of 1995, at a time when non-performing loans were rising dramatically.⁷

Against this backdrop, the Central Bank was forced to liquidate seven small institutions in the second half of 1994, followed by another five in the first half of 1995. A concrete threat of a

⁴ These were **ABN AMRO Bank** and **Lloyds Bank**, which had in the past associated with local consumer finance institutions. There were also three foreign non-commercial banks affiliated to carmakers, whose core activity was obviously auto financing.

⁵ The 1988 constitution was enacted without a final compromise on the role and organization of the financial sector (Constitutional Article 192), giving Congress the mandate to legislate through a future law. However, the Constitution also introduced a transitory rule (*Ato das Disposições Constitucionais Transitórias* 52) prohibiting foreign banks' expansion until the new legislation was approved. After almost 20 years, Article 192 has never been enacted, but Constitutional Amendment 40 of 2003 relaxed certain of its restrictions, which in many cases had never been enforced.

⁶ See Almeida Jr. and Mendonça de Barros (1997), Maia (1999) and Baer and Nazmi (2000).

⁷ Cysne and Costa (1997) report an increase in delinquency rates on household loans from 5.6% before the Real Plan to 16.7% in 1995.

systemic crisis, however, would only erupt in the second half of 1995, with the insolvencies of two out of the seven largest private banks. State-owned institutions were also under serious financial distress, with the end of inflation clearly exposing their delicate health. At the end of 1994, one bank was liquidated and two others suffered Central Bank's intervention, including **Banespa**, the largest sub-national bank controlled by the state government of São Paulo. In the first quarter of 1995, three additional interventions were announced.

By the time, a relative consensus had formed that state banks were just recurrent vehicles of fiscal indiscipline that should be definitely controlled. In this context, the government not only faced the challenge to recapitalize the private and public banking systems, but also had some political backing to contain sub-national banking activity. Foreign capital appeared as the only viable alternative to both the aims of recapitalization and privatization.⁸

The option for internationalization also had an external appeal. The period coincided with a major entry in other Latin America banking systems, particularly in the next two largest economies, Mexico and Argentina, whose banking sectors were severely impaired in the wake of the “tequila” crisis.⁹ External developments thus facilitated the task of attracting potential entrants, as several multinational players were already making strategic acquisition in the continent.

To overcome the restriction on foreign capital, the government formally contended in the second half of 1995 that entry was “in the interest” of the country. Still, a case-by-case authorization had to be granted. This fact gave the Central Bank a command over the entry process, directing potential entrants to certain troubled institutions, particularly the more systemically important. Pragmatically, when the target of the foreign institution was a sound bank, the Central Bank imposed a “toll” as “contribution” to the restructuring process.¹⁰

Concurrently, the legal framework to induce the restructuring was established. Initiatives included the creation of a deposit insurance scheme and the strengthening of the Central Bank's authority to force recapitalization, transfer of control or to intervene in financial institutions (a simpler form of authority already existed, but the new legislation gave the Bank a more preemptive and accountable stance). Additionally, a program to support the

⁸ See Franco (2000).

⁹ About the Mexican and Argentinean cases, refer to Dages, Goldberg and Kinney (2000).

¹⁰ Franco (2000).

recapitalization of private banks was set up, adopting the good bank – bad bank model. The acquisition of the good bank's assets was financed by the Central Bank under certain conditions, and certain costs associated with restructuring could be recorded as tax credits.¹¹

With support from this program, known as PROER (Program of Incentives for the Restructuring and Strengthening of the National Financial System), the big insolvent banks of 1995 had their control transferred to other domestic institutions (**Banco Econômico** was acquired by smaller **Banco Excel**, while **Banco Nacional** was transferred to **Unibanco**, the third largest national financial group).¹² In 1996, four other medium and small banks had their control transferred using PROER financing, while a number of unviable small institutions were simply liquidated. By mid-1996, a systemic banking crisis had apparently been averted.

Restructuring plans for state banks were only uncovered in the second half of 1996 and were inserted in the broader context of debt relief negotiations between the federal and state governments. The federal government provided financing for the states to either privatize or convert their banks into non-financial agencies, or still to simply liquidate them. The states also had the choice to hand over their banks to the federal government for restructuring and future privatization, which effectively started in mid-1997.

In the period, foreign entry was still hesitant. A few entry authorizations were granted, more an evidence of individual interest in the post-stabilization banking sector than any generalized trend. For instance, French **Banque Nationale de Paris (BNP)**, which had since the 80s a minority stake in a local institution, decided to charter a new bank, as did Dutch **Rabobank** (with no previous financial activity in the country). More important for its size, but going the opposite direction, was the takeover of **Banco Francês e Brasileiro** (a subsidiary of French **Crédit Lyonnais**) by **Banco Itaú**, the second largest Brazilian private bank, laying the foundations of its activities in the high-end retail segment.¹³

¹¹ Maia (1999) presents a detailed discussion of two variants of the program. See also Goldfajn, Hennings and Mori (2003) for a discussion of its costs.

¹² The reader can refer to the Annex for a summary of mergers and acquisitions (M&A) and privatization developments in the period.

¹³ The exit of **Crédit Lyonnais** from the Brazilian market was part of its worldwide restructuring [see Slager (2006), pgs 145-148] and had no domestic pull factor (the bank would reenter the market in 2001).

4.2 Accelerating Entry (1997-1998)

Internationalization gathered momentum in 1997-1998, when the share of banking equity held by foreign banks nearly doubled. A significant move came in the beginning of 1997, with the insolvency of **Banco Bamerindus**, then the fifth largest private bank by assets and the second largest by number of branches. At the time, a domestic solution to **Bamerindus** appeared less likely than in the former cases that received PROER support – the bank had an estimated negative equity of US\$ 1.5 billion, monthly losses of US\$ 80 million and overhead costs 35% higher than its competitors.¹⁴ **HSBC Bank** had since 1995 a minority stake in the bank, and the British were looking for opportunities to expand in Latin America.¹⁵ Both factors contributed to its decision to takeover selected assets and liabilities of the “good” **Bamerindus** with PROER support, inaugurating the effective participation of foreign institutions in retail banking. It was the one and only case in which PROER was used by a foreign institution, and its final operation.

Three other important cross-border transactions in the period involved already established foreign institutions and medium-sized banks: (i) Portuguese **Caixa Geral de Depósitos**, owner of a small local subsidiary, took over **Banco Bandeirantes**; (ii) Group **Inter-Atlântico**, a consortium of Portuguese **Banco Espírito Santo**, French **Crédit Agricole** and a Brazilian group that controlled an investment bank, acquired **Banco Boavista**; and (iii) Italian **Banco Sudameris** purchased **Banco América do Sul**, a bank linked to the farmers’ community of Japanese descent, with a minority stake of Japanese **Fuji Bank**.

The three targets had in common not only the size, but also the critical situation of their credit portfolios. **Banco América do Sul**, in particular, was running out of capital and nearly insolvent due to non-performing loans to rural cooperatives. As for **Bandeirantes**, it had been one of the beneficiaries of PROER when it bought a smaller bank less than two years before, but was now struggling to run the merged institution.

Among new entrants, Spanish **Banco Bilbao Viscaya (BBV)** purchased the control of the bank that resulted from the merger of **Econômico** and **Excel**. The later – with little retail

¹⁴ “Bamerindus: quanto custou?”, G. Franco in *Folha de São Paulo*, August 31st, 1997.

¹⁵ See Tschoegl (2005) in regard to **HSBC**’s internationalization strategy, aimed at diversifying out of Asia (in the same year of the **Bamerindus**’ takeover, it made other sizable acquisitions in Latin America – **Banco Roberts** in Argentina and a 20% stake in **Banco Serfin** in Mexico).

experience, having thrived as an investment bank in the high inflation period – did not manage to assimilate the much larger and troubled institution, and negative net worth of the consolidated entity exceeded US\$ 500 million in the first half of 1998. **BBV** had already approached unsuccessfully other local targets as part of its entry strategy in Latin America, but finally started Brazilian operations with the eighth largest branch network in the country.

If cross-border acquisitions were mainly directed to undercapitalized banks under the guidance of the Central Bank as in the cases above, they would eventually spread to sounder institutions. **Banco Santander**, which already owned a small subsidiary in Brazil, acquired in 1997 **Banco Geral do Comércio** (equity close to US\$ 150 million). One year later, it embarked in a three times larger purchase with the acquisition of **Banco Noroeste**, while carrying out unparalleled acquisitions in other Latin America countries.¹⁶

The largest transaction by far was the **ABN AMRO Bank** purchase of **Banco Real** in 1998, then the fourth largest Brazilian private bank (equity of US\$ 1.7 billion and assets close to US\$ 20 billion). Unusual for a foreign bank, **ABN AMRO** had a certain presence in the consumer loans market through **Aymoré**, an affiliate bought out in the 60s that generated robust results and encouraged further expansion. This transaction put the Dutch bank in the leading position among foreign banks in Brazil, although not for too long.

The circumstances of the acquisition of **Banco Garantia** – an investment bank with equity close to US\$ 400 million – by **Credit Suisse First Boston (CSFB)** were quite different. **CSFB** had been courting the Brazilian market for some time and had received authorization by the Central Bank to charter a new bank. In the meanwhile, negotiations with **Garantia** evolved positively, changing the bank's initial entry plans.

Many other transactions took place in the period but were not as significant as the ones detailed above. Nevertheless, they illustrate the substantial interest of international banks in penetrating the local market.¹⁷ Intriguingly, at the time the privatization program had already

¹⁶ **Santander** purchased 22 banks in Latin America from 1997 to 1999. See Calderón and Casilda (2000) and ECLAC (2003), chapter III.

¹⁷ Other takeovers included **Banco Brascan** by **Mellon Bank**, **Banco Graphus** by British **Robert Fleming Bank**, **Banco Liberal** by **Nations Bank**, **Banco Omega** by Swiss **UBS Warburg**, **Banco Patrimônio** by **Chase Manhattan Bank** and **Banco SRL** by **American Express Bank**. Takeovers also included institutions where foreign banks already owned a minority stake (**Arab Banking Corporation** from Bahrain in **Banco ABC-Roma**, and **Société Générale** in **Banco Sogeral**). **Lloyds TSB**, which conducted independent operations and also had an association with **Banco Multiplic**, acquired the control of the partnership when the later converted into a non-financial group. Finally, there was a unique situation in **Wachovia Bank's** acquisition of **Banco**

been launched but foreign banks were largely absent in the first four auctions (see Annex). Only at the end of 1998, the program attracted an international participant, with the bid of **ABN AMRO** for the small **Banco do Estado de Pernambuco (Bandepe)**. This bid was part of the “toll” charged by the Central Bank to approve the acquisition of **Banco Real**, unveiling the way authorities reconciled foreign interest in entering the market with their restructuring objectives.¹⁸

The active participation of local banks in the privatization auctions reveals that they were not insensible to the challenges posed by multinational competition. In fact, an incipient process of consolidation among domestic institutions was also developing, hand in hand with the internationalization wave. For instance, **Banco Bradesco** (the largest private bank) took over in 1998 the sixth largest, itself an institution active in acquisitions. The map of Brazilian banking was changing radically, with internationalization, privatization and consolidation deeply interconnected.

4.3 Macroeconomic Instability, Last Entries and First Exits (1999-2002)

The period 1999-2002 was marked by the change of foreign exchange regime from fixed to floating, and by persistent exchange rate depreciation in response to adverse external and domestic shocks. Foreign banks’ entry continued, and record FDI inflows were even registered in 2000 (the only year in the period that did not experience major exchange rate instability). At the same time, the first few cases of foreign departures took place. Yet, these were still perceived as one-off situations associated to failed attempts of newcomers to enter the retail market.

The record FDI inflows of 2000 were mainly linked to two specific transactions involving **Banco Santander**.¹⁹ In the beginning of the year, the bank took over **Banco Bozano, Simonsen**, a traditional investment bank with equity close to US\$ 450 million that initiated retail activities with the purchase of a public bank (**Banco Meridional**) in 1997. Facing poor

Português do Atlântico (the seller was a foreign bank that decided to discontinue its international operations after privatization at home).

¹⁸ Franco (2000).

¹⁹ Formally **Banco Santander Central Hispano**, the institution created after the merger in 1999 of the two Spanish arms. For convenience, we continue to refer to the merged institution simply as **Santander**.

results in the retail segment and the pressure to make new acquisitions to impulse growth, the shareholders opted to discontinue their financial activities.²⁰

At that time, **Banco Santander** had already secured a considerable market share and controlled four banks, besides the recently incorporated local operations of tiny **Banco Hispano**. Its appetite, however, had not yet diminished. In a privatization auction later in the same year, the bank bought the control of **Banespa** for US\$ 3.6 billion, paying a premium of 281% over the minimum price and consolidating the leading position among foreign banks in Brazil.²¹

The former largest – **ABN AMRO** – would buy out in the following auction the control of **Banco do Estado da Paraíba**. This was the lowest-priced sale of the whole privatization program, with a minimum bid of just US\$ 20 million. Still, **ABN AMRO** paid a 52% premium. The single justification, rather than a reaction to **Santander**'s aggressive strategy, was the possibility of integrating the bank with its former acquisition (**Bandepe**), as both institutions operated in neighbouring geographic areas.

The participation of **Santander** and **ABN AMRO** in the above privatizations should not be interpreted as a sudden general interest of foreign banks in state-owned institutions. Other two sales in 2001-2002 did not attract any foreign participant. That said, over the 1997-2002 period 11 banks were privatized, with 3 being transferred to foreign control and 8 to domestic control (of which, one would indirectly fall under foreign control with the takeover of group **Bozano, Simonsen/Meridional** by **Santander**). In other words, the privatization process was not the main vehicle for foreign penetration, with entry proceeding mainly through acquisitions of private banks.²²

²⁰ “Por que Júlio desistiu do banco”, *Istoé Dinheiro*, January 26th, 2000.

²¹ *The Economist* reported the acquisition in the following terms: “Bank clerks wept openly in the streets and others gasped with amazement when Banco Santander Central Hispano (...) paid almost four times the minimum price that the government had demanded, for a controlling stake in Banespa (...). Analysts and the defeated bidders in the country’s biggest privatization agreed that Santander had paid far too much. But the Spanish bank trumpeted the deal as the last and most important piece in its strategy to become Latin America’s top banker” (“Nuts? Brazil’s high-priced bank”, November 23th, 2000). The overbid is frequently associated with the previous privatization auction, only one month earlier, of **Banco do Estado do Paraná**. Together with **Banespa**, this was the state bank that raised the greatest interest in the whole privatization program, and **Banco Itaú** paid a 303% premium for the institution after an intense bidding battle. Based on this outcome, **Santander** possibly incurred in the typical winner’s curse situation, paying for **Banespa** US\$ 2.5 billion over the second highest offer in the first phase of the auction.

²² Different from the 1997-1998 period, opportunities in the retail market were more restricted after 1999, and new entrants focused on wholesale activities or specific market niches. Although there were some cross-border takeovers of small banks (for instance, **Banco Primus** by Portuguese **Banco Banif**, **Banco Agroinvest** by US

Two important cases of foreign departures occurred in 2000. First, **Bradesco** acquired **Banco Boavista Inter-Atlântico** from its Portuguese-French controllers. Difficulties in restructuring the bank and generating positive results, successive needs of capital injections, and, last but not least, large losses in the asset management unit in the aftermath of the floating contributed to the decision to sell the bank.²³

Soon after, **Caixa Geral de Depósitos** sold **Banco Bandeirantes** to **Unibanco** in exchange for a 12.3% stake in its capital. Since inception, the presence of the Portuguese bank in the Brazilian retail market was seen with scepticism, not only because of its lack of international expertise and scale, but also because it was a state-owned bank in its home country, entering a market that was making an effort to trim its own public banks. The legacy of **Bandeirantes** also proved to be worst than expected, and under Portuguese ownership, the bank registered losses in all semi-annual periods but one.

Still, these two acquisitions did not characterize – yet – a new trend of domestic banks taking over foreign institutions. Nevertheless, they were the precedents of situations that would multiply as of 2003.

4.4 De-internationalization (2003-2006)

The year 2002 marks a U-turn in Brazilian banking internationalization. Partly, the reversal can be attributed to spillovers from the Argentinean banking crises. In the neighbouring country, the collapse of the currency board in late 2001, the *curralito* and the public debt default caused severe losses for the entire banking sector. Some international banks refused to come to an aid

John Deere Bank and part of the assets of **Banco AGF Braseg** by **Crédit Lyonnais**), entry advanced in the period mainly through *de novo* institutions rather than acquisitions. These included **Morgan Stanley**, **Goldman Sachs** (as an investment bank), **Cargill Bank**, **Korea Exchange Bank (KEB)**, and a few banks linked to carmakers or farm equipment manufacturers. There were additionally two *de novo* foreign banks targeting the low-end consumer loans market (**GE Capital** and **Ibibank**, a subsidiary of Dutch retailer C&A), and one dedicated to “banking correspondents”, a network of retail and lottery outlets that offer access to a full range of banking services on behalf of an operator (**Lemon Bank**).

²³ After the floating in January 1999, the exchange rate overshot to nearly half its value in less than two months. The largest part of the market was long in dollars and did not suffer any impact, but there were a few banks that lost all their capital in the period. Some mutual funds managed by **Boavista Inter-Atlântico** were short and posted huge losses, despite the fact that the bank’s proprietary trading was long. The case had a large repercussion, and soon several investors sued the bank. A settlement was later reached, with investors being compensated for the losses. In any case, the episode undermined the bank’s reputation so badly that it was probably the ultimate determinant of its sale [see Rocha (2002)]. Besides a minority stake in **Bradesco**, **Banco Espírito Santo** maintained in Brazil a small investment bank, while **Crédit Agricole** would only resume local operations after the merger in France with **Crédit Lyonnais** in 2003.

of their local subsidiaries when capital injections were required, compelling them to leave the market. As a consequence, the share of banking assets held by foreign banks in that country, after reaching 53.8% by mid-2001, contracted to just 27.0% in 2006.²⁴

If the Argentinean crisis was important to redefine the strategy of international banks in the region in general, another pull factor was domestic. The year was also characterized by great internal instability due to uncertainties surrounding the economic policy after the presidential changeover in January 2003. By mid-2002, the Brazilian country risk had risen to over 25%, reflecting the fact that Brazil's public debt seemed unsustainable to many observers. Capital flows dried up, and the exchange rate overshoot to unprecedented levels.

Against this backdrop, **Bradesco** took over in the beginning of 2003 the Brazilian operations of **Banco Bilbao Viscaya Argentaria (BBVA)**. After almost five years, the Spanish bank was still struggling to grasp the problematic **Banco Excel-Econômico** – operating costs were high, information technology was out-dated and the number of branches was over-dimensioned. Not surprisingly, results were well below expectations – ROE averaged just 5.4% in 2001-2002, against 18.9% for the whole group of international banks in the period. The bank was also reportedly unsatisfied with its marginal position in the country (15th in the ranking, compared to a leading role in Mexico and other top positions in the continent).²⁵ Finally, new investment was still required if the bank decided to strengthen its Brazilian structure. The losses in Argentina and the excessive exposure to Latin America may have contributed to its final pragmatic option, partly disinvesting its Brazilian position and partly preserving an interest in the country through a 4.5% minority stake in **Bradesco**.

Banco Sudameris and **Lloyds TSB** also announced their exit from the Brazilian market in 2003, following the decision to suspend activities in Argentina. Contrary to **BBVA**, both banks were sold to foreign players (**ABN AMRO** and **HSBC**, respectively). As for **Sudameris**, it was probably the worst performer among medium and large international banks in the 1999-2002 period. To some extent, weak results reflected long-lasting negative implications of the acquisition back in 1998 of **Banco América do Sul**. But the decision to leave was fundamentally triggered by the Argentinean woes and the rearrangement and new priorities of

²⁴ “Ranking de Bancos”, Asociación de Bancos de la Argentina, December 2006. According to the Argentinean Central Bank, banks suffered average losses of 59% of their equity in 2002 and 23% in 2003.

²⁵ Consolidating assets, **BBVA** was the second largest bank in Latin America, after **Banco Santander** but close to **Citibank** [ECLAC (2003), chapter III].

the parent organization – since 1999, **Banca Commerciale Italiana** and its affiliates were incorporated into **Intesa**, which decided to concentrate activities in Europe in view of the ongoing consolidation process in Italy. For **ABN AMRO**, the acquisition was the opportunity to recover the top position among foreign banks in Brazil.

In the case of **Lloyds TSB**, the decision to depart was part of a global disinvestment strategy. Contrary to the preceding cases, **Lloyds'** local operations were highly profitable. Its major asset was **Losango**, a leading consumer finance company in which the bank had a minority stake since the 70s and fully controlled since 1998. The bank initially intended to sell its Brazilian and Argentinean business together, unsuccessfully. Once the deal was split, several buyers showed up. **HSBC** had the final word, allegedly thanks to the advantage of making the payment in the UK, saving **Lloyds** the income tax on Brazilian capital gains.²⁶

The nature of the acquisition of **Banco Fiat** by **Banco Itaú** in the same year was quite different. **Banco Fiat** was the largest among banks owned by carmakers, with equity close to US\$ 350 million and a most wanted auto-financing portfolio. The sale was fully linked to a strategic reorientation of the controller due to its well-known difficulties in Italy.²⁷ **Banco Itaú** still bought in 2003 another foreign institution (**Banco AGF**) from the Allianz Group, though the transaction was mainly aimed at its life insurance and pension funds portfolio.

In 2004, **Unibanco** bought the Brazilian operations of Italian **Banca Nazionale del Lavoro (BNL)**. Like **Sudameris** and **Lloyds**, **BNL** was one more victim of the Argentinean crisis, and the decision also reflected the need to strengthen its position at home in face of the European consolidation trends. In fact, the bank would be the focus of a long and noisy takeover battle, before falling into the hands of **BNP Paribas** in 2005.

New significant developments took place in 2006, and included the acquisition by **Banco Itaú** of the Brazilian operations of **BankBoston** (the Chilean and Uruguayan subsidiaries would follow). Since **FleetBoston** merged with **Bank of America (BofA)** in 2003, it was expected that the new organization would discontinue its Brazilian activities, following **BofA's** strategy of giving preference to local partnerships rather than sole activities. In Brazil, it had

²⁶ “HSBC paga US\$ 815 milhões à vista pelo Banco Lloyds no Brasil”, *Valor Econômico*, October 10th, 2003. About **Lloyds TSB** global disinvestments in the period, see Slager (2006), pags. 141-144.

²⁷ Auto financing has historically been the most competitive segment in the consumer financing market due to very low default rates. This is due to the type of loan contract – the creditor keeps ownership of the vehicle being financed, and the debtor remains its depositary. In case of delinquency, the financial intermediary can easily recover the vehicle. See Banco Central do Brasil (2005).

experienced a similar situation when it inherited a small local bank as a result of the merger with **Nations Bank** in 1998. At the time, the group finally decided (after some hesitation) to leave the banking market. The fate was similar in the case of **BankBoston**, despite the efforts of local executives to convince the new controllers that the bank had this time a much stronger and well-established local base. **BofA** acquired a total 7.5% stake in **Itaú** in a transaction estimated at close to US\$ 2.8 billion (including the other South American subsidiaries).²⁸

In another transaction, **Bradesco** bought the Brazilian operations of **American Express Bank**. The transaction involved mainly the credit card business and other related financial services, but also included the commercial bank that American Express acquired in the 90s. The company's activities in Brazil never gained scale, contributing to its decision to depart.

Despite the large number of exit decisions in 2003-2006, two emblematic takeovers of domestic banks by international players took place in 2006. The first was Swiss **UBS** purchase of **Banco Pactual** (equity of US\$ 450 million), originally an investment bank that remained independent despite the consolidation and conglomeration trends since mid-90s. **Banco Pactual** was among the most profitable institutions in the market, and was reportedly disputed by **UBS** and **Goldman Sachs**. The second was **Société Générale** acquisition of **Banco Pecunia**, a small bank specialized in consumer financing (equity of US\$ 25 million).²⁹

These transactions demonstrate a new interest of foreign banks in Brazil, attracted by the more stable macroeconomic environment and by the industry's robust results. The **Société Générale** transaction also underscores the new focus of foreign banks in the credit market, a consequence of the gradual softening of the endemic obstacles for lending in Brazil: macroeconomic volatility, high interest rates and high credit and legal risks. Consumer lending received a particular boost with the possibility for banks to discount instalments from borrowers' payrolls or pension benefits, significantly reducing credit risk. As a result, credit-to-GDP ratio increased to 31% in 2006 from just 22% in 2002.

²⁸ The chairman of **FleetBoston** before the merger declared in an interview that the bank had already considered selling its Brazilian operations, and that "had it not done a deal with **BofA**, it would have proceeded down the same road, because Brazil's economy is tremendously volatile". See "Brazil's Itaú buys BankBoston offices", *The Boston Globe*, May 3rd, 2006. See also "Bank of America deixa rastro de problemas", *Folha de São Paulo*, March 8th, 2004.

²⁹ **Société Générale** would buy another – and larger – institution in the beginning of 2007 (Banco Cacique, with equity of US\$ 150 million).

4.5 Current Landscape of the Banking Market

At end-2006, the Brazilian commercial banking business was largely dominated by private domestic institutions, which held 56.9% of bank equity. In particular, the market share of the two largest private groups reached 33.1%, a rise of 11.2 percentage points in one decade. During the same period, the 10 largest banks (including public ones) increased their share in banking equity from 65.4% to 78.1%. Despite an upward trend after the end of hyperinflation, bank concentration is still arguably moderate in Brazil.

At the time, a total of 104 conglomerates or independent institutions conducted commercial banking activities. Despite all the consolidation, the banking landscape is still relatively fragmented in the sense that several marginal players operate side by side with the large retail groups. Interestingly, various small entities survived the turbulent adjustment of the 90s and established well-succeeded market niches in consumer financing, corporate banking or asset management.

The banking industry is well capitalized, with a consolidated Basel capital ratio of 17.8%, or 6.8 percentage points above the minimum requirement. Of note, private domestic banks present a slightly higher risk-based capitalization compared to foreign banks, with ratios of 17.8% and 15.9%, respective (for public banks, the ratio stand at 19.5%).

The asset mix of the banking system has been changing gradually, with credit volume improving in recent years. Again, there are differences according to ownership structure, and private domestic banks have an average credit-to-assets ratio (after reserves for loan losses) of 32.9%, against 29.8% for foreign banks.

Despite privatization efforts, the public sector still holds about 20% of banking equity. There are 12 active public banks (approximately 1/3 of the existing number in the aftermath of the Real Plan), with six controlled by the federal government, including **Banco do Brasil** (the largest bank by assets), **Caixa Econômica Federal** (the mortgage and savings national bank) and two regional banks. The federal government also controls two former sub-national banks that were previously aimed at privatization, but are being incorporated into **Banco do Brasil**.

Six sub-national banks survived the privatization, federalization and liquidation options. They are presently very different entities compared to the inefficient and politically oriented

institutions that sprout in the 80s and early 90s. The larger – **Banco Nossa Caixa**, controlled by the state government of São Paulo – is listed in the *Novo Mercado*, a segment of the São Paulo stock exchange restricted to companies with best practices in corporate governance.

Foreign participants held 22.5% of banking equity at end-2006. Players include from conglomerates with large branch networks and retail orientation that have grown mainly through mergers and acquisitions, as **ABN AMRO Bank**, **Banco Santander** and **HSBC Bank**, to several conglomerates oriented to corporate banking, asset management, specialized financial services or proprietary trading. The increase in consumer credit in the last few years, together with high credit spreads and moderate default rates, attracted a few institutions oriented to the low-end market (**Ibibank**, **GE Capital**), and others that, despite their main focus on corporate and investment banking, also have penetration in consumer lending (for instance, **BNP Paribas** through its consumer finance unit **Cetelem**).

But in general, foreign banks lack the geographic reach, the flexibility to offer new products or the distribution channels that domestic banks built up to increase lending volumes. For instance, several medium and large domestic banks launched in the last few years finance companies in association with supermarkets, retail chains and services providers, a market that foreign banks barely managed to access. Also the attractive segment with payroll-deducted instalments is largely dominated by domestic banks (particularly medium-sized banks). In this environment, lending activity of foreign banks is confined to the corporate market, where competition is higher and interest rates much lower.

As a rule, the fastest growing foreign banks are headquartered in countries where the domestic consolidation process advanced most – such as the Netherlands, Spain, Switzerland and UK. Among other countries, Italian banks completely left the market while French, German and US banks presented a more erratic behavior, reflecting the less advanced stage in their national consolidation fronts. Portuguese banks only had a short-lived presence, while Japanese banks exhibited the most extreme downsizing, converting from the largest foreign investors in the mid-90s to a marginal position nowadays.

5. Foreign vs. Domestic Banks' Results: A Comparative Analysis

To investigate the sources of profitability differentials between foreign and domestic banks, selected aggregate accounting ratios were calculated. The source was the “TOP 50” database provided by the Central Bank on its website. It contains semi-annual balance sheets and income statements for all commercial banks, compiled from data handed in by each institution to the regulator.³⁰ Data availability starts in the second half of 1995. Thus, aggregate annual accounting ratios were computed from 1996 on, covering the entire universe of non-public commercial banks.³¹

To have a detailed perspective, aggregate returns were decomposed according to the following equivalences:³²

$$\begin{aligned} \text{Before-tax returns} &= \text{net interest income (before provision)} - \text{provisions} \\ &+ \text{service fees} - \text{overhead costs} + \text{other net income} \end{aligned}$$

$$\text{After-tax returns} = \text{before-tax returns} - \text{tax} - \text{profit sharing}$$

Taking each component of the equations relative to total assets (A):

$$\begin{aligned} \text{After-tax returns on assets (ROA)} &= \text{net interest margin (before provision)} \\ &- \text{provisions/A} + \text{service fees/A} - \text{overhead costs/A} \\ &+ \text{other net income/A} - \text{taxes/A} - \text{profit sharing/A} \end{aligned}$$

Table 2 presents the decomposition, with the last row showing average ratios for each category of banks for the whole period. Before-tax or after-tax ROA confirm the trends already shown in Figure 2 about the relative profitability of the two categories. Returns for foreign banks were lower than for domestic banks in every year except 1999 and 2002, and also much more

³⁰ Available at <http://www.bcb.gov.br/top50/ingl/top50-i.asp>. The “Top 50” consolidates data by banking organization. All data henceforth refers to bank groups rather than individual banks.

³¹ In composing annual accounting ratios, semi-annual results were accumulated and divided by the average level of assets or equity. The following adjustments were made:

- (i) **Banco Santander Banespa** was excluded from the dataset from 2000H2 to 2002H2 (the amortization of goodwill and the clean up of **Banespa**'s balance sheet after privatization, followed by massive returns due to accumulated tax credits, distorted the aggregate data);
- (ii) **Banco Excel-Econômico** was also excluded in 1998H1, because of its large negative equity;
- (iii) The bank that resulted from the merger of **Banco Meridional** and **Banco Bozano, Simonsen** was considered domestic, despite the “Top 50” classification as foreign (the new bank was registered in Cayman Islands, but was ultimately controlled by Brazilians).

³² This decomposition was adapted from Demirgüç-Kunt and Huizinga (1999).

unstable. For local banks, ROA moves from relatively low levels in the post-stabilization period (what was previously referred to as restructuring years) to a historic high in 2005.

Table 2
ROA Decomposition – Foreign and Private Domestic Banks (1996-2006)

FOREIGN BANKS									
	Net Interest Margin (before provision)	Provisions	Service Fees	Overhead Costs	Other Net Income	Pre-tax ROA	Taxes	Profit Sharing	After-tax ROA
1996	6.5%	1.2%	1.4%	6.8%	1.6%	1.4%	0.6%	0.1%	0.8%
1997	5.0%	0.7%	1.7%	6.9%	1.6%	0.7%	0.2%	0.0%	0.4%
1998	6.9%	1.2%	2.1%	8.0%	1.3%	1.0%	0.2%	0.1%	0.8%
1999	9.9%	1.3%	1.8%	9.4%	2.7%	3.6%	1.1%	0.2%	2.4%
2000	6.1%	0.7%	1.9%	7.6%	1.9%	1.6%	0.4%	0.2%	1.0%
2001	6.6%	1.2%	1.8%	7.2%	1.9%	1.9%	0.2%	0.2%	1.4%
2002	9.6%	1.3%	1.8%	8.6%	2.3%	3.7%	0.8%	0.3%	2.6%
2003	7.4%	1.5%	2.4%	10.8%	4.3%	1.8%	0.3%	0.2%	1.3%
2004	7.2%	1.2%	2.8%	10.0%	2.9%	1.7%	0.4%	0.3%	1.0%
2005	7.8%	1.6%	3.0%	9.6%	2.5%	2.0%	0.4%	0.2%	1.4%
2006	8.1%	1.8%	3.0%	8.4%	1.4%	2.4%	0.5%	0.4%	1.4%
Avg	7.4%	1.3%	2.1%	8.5%	2.2%	2.0%	0.5%	0.2%	1.3%

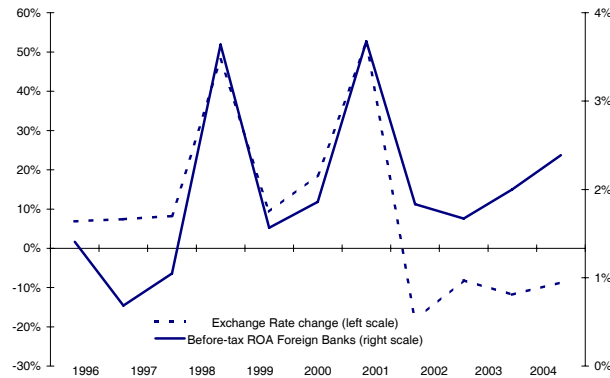
PRIVATE DOMESTIC BANKS									
	Net Interest Margin (before provision)	Provisions	Service Fees	Overhead Costs	Other Net Income	Pre-tax ROA	Taxes	Profit Sharing	After-tax ROA
1996	8.3%	2.2%	2.5%	9.6%	2.9%	2.0%	0.3%	0.1%	1.6%
1997	6.0%	1.7%	2.4%	7.9%	2.1%	0.9%	-0.2%	0.1%	1.0%
1998	6.6%	1.8%	2.2%	7.5%	1.9%	1.4%	-0.3%	0.1%	1.6%
1999	6.6%	1.9%	2.6%	8.4%	3.6%	2.6%	-0.1%	0.2%	2.4%
2000	6.1%	1.1%	2.5%	7.7%	2.6%	2.4%	0.1%	0.2%	2.2%
2001	6.5%	1.5%	2.4%	7.5%	2.7%	2.6%	0.1%	0.2%	2.3%
2002	6.4%	2.0%	2.4%	8.1%	3.4%	2.1%	0.0%	0.2%	1.9%
2003	7.6%	1.7%	2.5%	7.9%	1.9%	2.4%	0.3%	0.2%	1.9%
2004	7.3%	1.2%	2.6%	7.9%	2.4%	3.3%	0.6%	0.2%	2.5%
2005	8.6%	1.7%	2.9%	7.9%	2.0%	3.8%	0.8%	0.2%	2.8%
2006	8.1%	1.8%	2.8%	7.6%	2.0%	3.3%	0.5%	0.2%	2.6%
Avg	7.1%	1.7%	2.5%	8.0%	2.5%	2.4%	0.2%	0.2%	2.1%

Source: Own calculation based on data from Banco Central do Brasil.

A clear association can be made between foreign banks' profitability and foreign exchange market developments. The relationship is seen in Figure 3, which compares ROA (before-tax) with the end-of-year change in the BRL/USD exchange rate. With more incentives to hedge against exchange rate fluctuations and protect equity in home currency, foreign banks' earnings responded positively to the devaluation episodes of 1999 and 2002. As a matter of fact, several foreign players posted exceptional results in those episodes (for instance, **JP Morgan Bank** and **Chase Manhattan Bank** registered returns of 170% and 93% of equity in 1999, respectively, and **Citibank** was a top performer in both occasions, with average ROE of 46%). The outcome was the one-off jumps in aggregate ROA shown on the chart.³³

³³ Several domestic banks also posted mega-earnings in 1999, although in 2002 Central Bank regulation restricted more severely the currency exposure of domestic banks, reducing the potential for gains with exchange rate volatility. Both years were also marked by monetary tightening (and in 1999, the tightening was followed by a relatively fast easing), and banks' returns also reflected monetary policy developments.

Figure 3
ROA Foreign Banks and Exchange Rate (1996-2006)



Source: Own calculation based on data from Banco Central do Brasil.

The outlook changed radically in the post-2002 period, marked by a continuous exchange rate appreciation trend. In many cases, foreigners were less prompt to reverse their currency hedge positions, and numerous institutions suffered losses in proprietary trading with financial instruments indexed to the exchange rate. The fate of **Citibank**, for example, reversed, and the bank registered an average -8% ROE in 2003-2004. Even more extreme was the case of **Deutsche Bank**, which registered an annual loss close to 30% of equity in the same years.³⁴

Table 2 helps to identify the sources of differences in earnings between domestic and foreign banks. The first two columns exhibit net interest margins (before provisions) and provisions for loan losses. On average, foreign banks even registered slightly higher interest margins compared to domestic banks, although there is no stable pattern. In fact, after 1998 there is little difference in margins across the two groups, except for the already discussed devaluation episodes of 1999 and 2002, and for 2005 (a year of relatively high real interest rates). Provisioning also shows an unclear pattern, converging to similar levels in the more recent period, with foreign institutions having increased their provisioning from relatively low ratios in late 90s.

In regard to service fees, private domestic banks have maintained relatively stable at 2.5% - 3.0% of assets, whereas foreign banks' fees have increased, approaching – and even surpassing – the ratios of their direct competitors. There is a noisy debate in Brazil about this issue, with

³⁴ The losses were partly justified as a consequence of hedging against currency risk (see “Citi tem prejuízo de R\$ 220.5 milhões”, *Valor Econômico*, August 26th, 2003). Regulation issues also help to explain hedge policies of certain foreign institutions. Naturally, eventual profits or losses in the local market due to hedging strategies should be neutral in terms of the balance sheet of the parent organization in home currency.

the media and consumer protection agencies frequently claiming that service fees have been a growing source of income for banks. The dataset does not confirm such increase for domestic banks, even though a significant rise possibly happened in 1994-1995. An attribute of the Brazilian banking system before stabilization was the supply of costless bank services, as banks strongly encouraged “bankarization” to earn inflation revenues. With disinflation in 1994, banks gradually started to charge for their services. According to Central Bank data, an initial rise in fees took place in the immediate aftermath of the stabilization – fees relative to operating revenues rose from 0.4% in the first half of 1994 to 2.4% in the second half. Fees continued to increase in 1995 (to 3.9%) and 1996 (to 5.9%), and then stabilized.³⁵ All in all, service fees are not the source of differences in earnings among domestic and foreign banks in the more recent period.

Taxes refer to the corporate income tax and so-called “social contributions”, which are levied on bank’s profits and gross income. As there is no difference in tax regime according to ownership structure, taxes should not be responsible for any profitability gap between domestic and foreign firms. In practice, there are several nuances. In the initial years shown in the table, domestic banks benefited more from tax compensations associated with privatizations and bank restructurings, among other factors. The tax bill was in fact a credit from 1997 to 1999. More recently, tax payments tended to increase due to larger profits and higher social contribution rates. Specific factors, however, distort any comparison.³⁶

Other income (net) is a residual aggregate, which includes non-operating income plus income of subsidiaries. It comprises extraordinary items, and therefore should not explain any systematic difference in relative profitability. Profit sharing is also residual, and presented only for completeness.

Among the aggregates in Table 2, overhead costs clearly diverge for the two groups. Whereas domestic banks did manage to curb overheads in the period, foreign firms faced a more erratic behaviour, with costs increasing from relatively low levels in 1996 (when the group was still mainly composed of small, non-retail banks) to the peak in 2003, before falling gradually in the

³⁵ See Banco Central do Brasil, “Relatório de Evolução do Sistema Financeiro Nacional (1998)”.

³⁶ The decrease in aggregate tax payments in 2006, for instance, was mainly due to a judicial interpretation of certain tax regulations. Many banks have challenged in court aspects of the social contributions, particularly the tax base, claiming that collection should be based on net financial income and not on gross financial income. In some cases, judicial decisions have allowed them to incorporate previously provisioned tax payments into their accounting results.

following years.³⁷ In the 2003/2006 period, on average, overhead differentials reached 1.9 percentage points relative to assets. To a great extent, domestic banks' cost advantage can be attributed to their capacity to reduce payroll expenses, which fell from 3.7% of assets in 1996 to half that rate in 2006 (Figure 4). Figure 5 compares the two groups' efficiency ratios, measured as overhead costs relative to operating income. For domestic banks, the efficiency ratio presents a downward trend since 1997, and the group does manage to achieve cost efficiencies relative to their foreign peers. These facts seem to support the "quiet life" hypothesis.

Figure 4
Payroll Costs

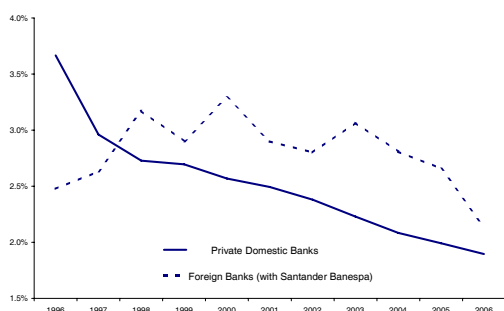
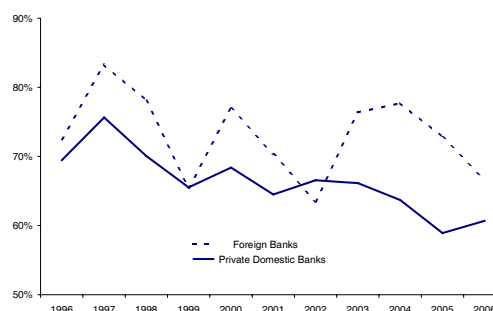


Figure 5
Efficiency Rate



Source: Own calculation based on data from Banco Central do Brasil.

In the next section, the roles of the asset and liability mixes on profitability are discussed as part of the econometric estimation. This brings a complementary approach to the above analysis, as domestic banks have a larger credit penetration relative to foreign institutions. This characteristic contributes to explain the recent earnings gap, as local firms benefited relatively more from credit growth and high credit margins.

6. Regression Analysis

6.1 Model and Data

To assess the implications of ownership on banks' profitability and overhead costs, panel data estimations in the tradition of Demirgüç-Kunt and Huizinga (1999) were carried out for Brazil.

³⁷ The apparent fall in foreign banks' overhead costs from 1999 to 2002 and the subsequent rise in 2003 is partly explained by the fact that data for **Banco Santander Banespa** is only considered as of 2003. The inclusion of **Banespa** in the group of foreign banks since privatization in 2000 would produce a more stable and upward trend in the period. This can be seen in Figure 4, which compares payrolls of domestic and foreign banks, but now including the privatized **Banespa** in the dataset.

Initially, an ownership dummy variable was introduced in the panel equations to assess if the behaviour of foreign and local banks differed statistically. The panel was later divided according to ownership, and the determinants of profitability and costs for each group of banks were evaluated.

The panel was estimated with semi-annual data for the period 1996 to 2006. As in the previous section, the source was the “TOP 50” database compiled by the Central Bank. Only banks with an average equity of US\$ 20 million and at least five observations were considered.³⁸ The panel, containing 90 cross-sections and 1629 observations, is unbalanced as several banks failed, merged, converted into non-banking institutions or were chartered in the period. Out of the 90 banks, 65 are in the domestic sub-panel and 39 are in the foreign (1039 and 590 observations, respectively), whereas 14 banks moved from the domestic to the foreign sub-panel.³⁹

The dependent variables are return on assets (**ROA**) and overhead costs relative to assets (**Ovhead**). Their recent trends were already discussed in the previous section. Both are regressed against macroeconomic variables and banks’ intrinsic characteristics, including the dummy for foreign ownership.

The model has the following general specification:

$$I_{it} = \beta_0 + \beta_i B_{it} + \beta X_t + \gamma T + \varepsilon_{it}$$

where I_{it} is the dependent variable (ROA or Ovhead) for each bank i at time t , B_{it} represents characteristics of each bank i at time t , X_t represents macroeconomic variables and T is a time trend variable included in the ROA equation to capture efficiency gains with time or omitted variables.⁴⁰ Variants of the model have been estimated, among others, by Abreu and Mendes

³⁸ These two restrictions simplified the econometric estimation, excluding from the panel several domestic and foreign small banks, as well as various banks that were liquidated in the beginning of the sample period.

³⁹ The dataset was structured in such a way that the inverse situation does not occur. Despite several cases of foreign banks that were acquired by locals, these were always incorporated into established banking groups. For instance, **BBVA** bought **Banco Excel-Econômico** in 1998 and was later bought by **Bradesco** in 2003. Thus, **Excel-Econômico/BBVA** moves from the domestic sub-panel to the foreign sub-panel in 1998, and disappears in 2003 (it is consolidated into **Bradesco**’s data). The reader may notice that in Tables 4 to 6 the foreign sub-panel contains only 38 cross-sections. The 39th component is **Banco UBS Pactual**, which was left out of the regressions because it only had one observation.

⁴⁰ As we used in the estimation after-tax rather than pre-tax ROA, one such variable may be changes in taxation in the period, a topic that was raised in the previous section. A different source of bias can derive from changes in banking regulation (for instance, limits of exposure to exchange rate risk), which may alter coefficients of certain independent variables (in this case, the exchange rate).

(2001) and Pasiouras and Kosmidou (2007) for European banks, and Williams (2003) for Australian banks.

Banks' characteristics include:

- **SIZE** – Banks' total assets (logarithm, in thousand *reais*);
- **EQA** – Equity-to-assets ratio;
- **LA** – Loans-to-assets ratio;
- **FUND** – Deposits-to-assets ratio;
- **NIM** – Net interest margin (after provisions);
- **ER** – Efficiency rate (or overhead costs relative to operating income).

The first variable was designed to capture the effect of size on earnings and overhead costs. Any eventual relationship is essentially an empirical issue. Size may have implications in terms of funding costs, branch networks and payroll expenses, among others, and banks may or may not benefit from economies of scale and scope. Pasiouras and Kosmidou (2007), for instance, found a negative association between assets and earnings, while Williams (2003) reported a positive relationship.

The equity-to-assets ratio variable can be interpreted as a measure of capitalization and risk-taking of the bank. Banks with a higher equity-to-assets are expected to face lower bankruptcy risk and to have lower funding costs, and consequently higher earnings. The relation with overhead costs is undetermined at first.

The loans-to-assets ratio is an indicator of the banks' business orientation. In their researches, Demirgüç-Kunt and Huizinga (1999) and Abreu and Mendes (2001) found a positive association between this variable and earnings. In the Brazilian context, we may generally expect banks with larger lending activity to have higher earnings, while overhead costs may also be higher if compared with banks more oriented to, say, proprietary trading or asset management.

The variable deposits-to-assets ratio is intended to capture the implications of the funding structure on profitability and costs. Given Brazilian idiosyncrasies, this was the most difficult variable to define. Banks receive deposits either as non-remunerated demand deposits or as remunerated time deposits or still as saving deposits, which have interest rates set by the government. There are regulatory peculiarities in each modality, including different (and very

high) reserve requirements, as well as lending requirements, which specify that a fixed share of deposit liabilities be granted to certain sectors (agriculture and housing) at below-market interest rates.⁴¹ Theoretically, one could expect banks with larger demand deposits over total funding to be more profitable than those that mainly rely on more costly time deposits, but this effect may also be captured by the size variable, as the former are primarily the big retail banks. Due possibly to the level of reserve requirements, the liability effect was better measured by the level of total deposits (demand + time + saving deposits) to assets, indicating how dependent the bank is of deposits funding vis-à-vis own capital or very short term funding (open market operations). Demirgüç-Kunt and Huizinga (1999) used a similar variable and found a negative relationship with profitability. The relationship with overhead costs is likely positive.

The efficiency rate and net interest margins (net of provisions for loan losses) were introduced in the previous section. The first is expected to be negatively related to profitability and positively related to overhead costs. The inverse is expected for the second in relation to profitability, while the relationship with costs is an empirical matter.

Regarding macroeconomic variables, some specifications test the **nominal interest rate** while others decompose the nominal rate into **real rate** and **inflation**.⁴² The second approach has the advantage of highlighting the effects of inflation on profitability and costs. There is a large literature analysing the impact of inflation on banks' earnings, in general associating any potential negative relationship to unanticipated inflation. Empirical evidence, however, is mixed. For instance, Demirgüç-Kunt and Huizinga (1999) found that inflation increases returns (although statistical significance is low), whereas Abreu and Mendes (2001) found a negative association. More puzzling, Pasiouras and Kosmidou (2007) found that for the subset of domestic banks in the European Union the relation is positive, while the opposite is true for foreign banks. The authors attribute the result to [pg. 233] "different levels of knowledge

⁴¹ At end-2006, reserve requirements on demand deposits stood at 53% (of which, 45% non-remunerated), having varied between 45% and 83% in the estimation period. Banks must also hold in the Central Bank 23% of time deposits and 30% of saving deposits, after a certain floor. Lending requirements stipulate that 25% of demand deposits and 65% of saving deposits be directed to agriculture and housing, respectively. All in all, a sizeable share of demand and saving deposits balances are earmarked, giving banks little flexibility to benefit from the cheaper funding. For more details, see Banco Central do Brasil (2005).

⁴² The interest rate is the average rate on short term government securities (taxa Selic) in annual terms. Inflation refers to semi-annual consumer inflation (IPCA), also in annual terms. The real interest rate is simply the nominal rate adjusted for actual inflation. Data sources are the Central Bank and IBGE (Brazilian Institute of Geography and Statistics).

of country macroeconomic conditions and expectations concerning inflation rate between domestic and foreign banks”.

Although the **exchange rate** is not frequently found in studies on the determinants of banks’ profitability or costs, it was added to the Brazilian panel given the implications commented in the previous section, particularly regarding foreign banks.⁴³ In contrast, **GDP** is usually included and significant, but its impacts for banks in Brazil were less clear.⁴⁴ In certain specifications for ROA, a **concentration** variable was added and defined as the market share (measured by equity) of the three largest banks. Even though the structure-conduct-performance paradigm generally claims a positive relationship between market concentration and profitability, international evidence is inconclusive. Also in Brazil there is an ongoing debate about the consequences of the consolidation process on bank’s competition and profitability, and the inclusion of this variable may shed light on the issue.⁴⁵

Lastly, some specifications incorporate as independent variable the share of bank’s equity held by foreign institutions (**foreign share**, shown in Figure 1). The objective is to assert if foreign entry had any affect on domestic banks’ earnings and costs. There is factual evidence of the “quiet life” hypothesis [though not necessarily linked to foreign penetration, as emphasized by Bevilaqua and Loyo (1998)], while Guimarães (2002) found that foreign bank’s entry increased domestic bank’s profitability.

Table 3 summarizes the sample descriptive statistics. Return on assets averaged 1.2% (in semi-annual terms) for the whole sample, varying between the extremes -17.3% and 24.6%. Net interest margins (after provisions) and overhead costs averaged 3.8% and 4.3%, respectively. In all cases, the relatively high standard deviations underscore estimation difficulties due to data dispersion and outliers. Assets of the banks in the sample ranged from R\$15 million to R\$214 billion, with an average close to R\$1.4 billion. Equity-to-assets, loans-to-assets and the efficiency rate also present significant variability across banks.

⁴³ The variable regressed is the difference of the logarithm of the BRL/USD exchange rate (positive figures indicate an exchange rate devaluation). In their model, Abreu and Mendes (2001) tested the nominal effective exchange rate, but results were not statistically significant.

⁴⁴ In the overhead equations, GDP is simply the logarithm of the seasonally adjusted series released by IBGE. In the ROA equations, it is the year-on-year growth rate.

⁴⁵ See, for instance, the different perspectives offered by Nakane (2001) and Belaisch (2003).

Table 3
Descriptive Statistics – Panel Data

	ROA	NIM	Ovhead	SIZE	EQA	FUND	LA	ER
ALL (1629 obs.)								
Mean	1.2%	3.8%	4.3%	14.15	16.4%	28.8%	29.8%	66.8%
Median	0.9%	2.8%	3.1%	14.08	12.9%	26.5%	29.0%	63.5%
St. Dev.	2.1%	4.7%	4.1%	1.83	12.3%	19.7%	20.8%	36.7%
Max	24.6%	57.1%	52.2%	19.18	94.0%	85.3%	97.0%	655.5%
Min	-17.3%	-31.4%	0.1%	9.63	0.7%	0.0%	0.0%	5.5%
99% Perc.	7.6%	20.9%	18.1%	18.53	70.0%	75.2%	83.0%	212.9%
1% Perc.	-4.1%	-4.3%	0.5%	10.06	3.0%	0.0%	0.0%	16.6%
PRIVATE DOMESTIC (1039 obs.)								
Mean	1.4%	4.3%	4.6%	13.95	16.3%	34.3%	33.6%	63.2%
St. Dev.	1.8%	4.8%	4.5%	1.84	9.9%	19.5%	21.0%	33.3%
FOREIGN (590 obs.)								
Mean	0.7%	2.9%	3.9%	14.51	16.7%	19.0%	22.9%	73.0%
St. Dev.	2.5%	4.3%	3.2%	1.77	15.6%	15.9%	18.7%	41.4%

Comparing the data according to ownership, domestic banks achieved an average return that is approximately twice larger than foreigners. Net interest margins and overhead costs are also significantly higher for domestic banks, while the representative foreign bank is on average nearly 75% larger than the domestic one. Notable differences are also noticed in the asset and liability mixes, with locals having larger lending penetration and depending more on deposits than foreign institutions – the difference reaches 10.7 percentage points in terms of credit relative to assets. Finally, domestic banks are more cost efficient as measured by the efficiency ratio.

Following the procedure adopted, among others, by Beck, Crivelli and Summerhill (2005), the estimation was restricted to the 1-99 percentile range, thus ignoring the tails of the distribution. Estimation was carried out through a fixed cross-section effects regression.

6. 2 Results: Return on Assets

Table 4 presents econometric results for ROA for the entire panel and also for the two sub-panels. Heteroskedasticity-robust t statistics are reported. For the entire panel, four alternative specifications are presented. The first column shows the standard model including as macroeconomic variables GDP growth, the nominal interest rate and the exchange rate. GDP is not significant, and is simply ignored in the following equations.

Table 4
Regression Results – Dependent Variable ROA

	ALL				PRIVATE DOMESTIC				FOREIGN		
	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)
Assets(-1)	0.00145*** (3.954)	0.00145*** (3.990)	0.00147*** (3.970)	0.00158*** (4.187)	0.00216** (2.074)	0.00219** (2.091)	0.00219** (2.095)	0.00221** (2.094)	-0.00008 (-0.099)	-0.00006 (-0.074)	-0.00010 (-0.119)
Equity/Assets	0.03181*** (6.653)	0.03179*** (6.634)	0.03172*** (6.566)	0.03178*** (6.685)	0.04561*** (9.213)	0.04541*** (9.135)	0.04534*** (9.113)	0.04538*** (9.065)	0.0117* (1.696)	0.01172* (1.659)	0.01205* (1.762)
Loans/Assets	0.00815*** (3.212)	0.00814*** (3.211)	0.00802*** (3.235)	0.00773*** (3.060)	0.00665** (2.403)	0.00652** (2.355)	0.00641** (2.312)	0.00647** (2.292)	0.01169** (1.977)	0.01156* (1.960)	0.01202** (2.122)
Deposits/Assets	-0.00575** (-2.328)	-0.00572** (-2.319)	-0.00569** (-2.282)	-0.00543** (-2.130)	-0.00429 (-1.398)	-0.00403 (-1.340)	-0.00398 (-1.324)	-0.00400 (-1.332)	-0.01175** (-2.450)	-0.01142** (-2.285)	-0.01068** (-2.018)
Net Interest Margin	0.14574*** (5.398)	0.14583*** (5.401)	0.14595*** (5.401)	0.14807*** (5.441)	0.13006*** (3.829)	0.13048*** (3.852)	0.13077*** (3.849)	0.13075*** (3.828)	0.12622*** (3.568)	0.12603*** (3.556)	0.12803*** (3.592)
Costs/Income	-0.01791*** (-5.782)	-0.01790*** (-5.789)	-0.01792*** (-5.742)	-0.01791*** (-5.805)	-0.01527*** (-3.912)	-0.01528*** (-3.917)	-0.01534*** (-3.911)	-0.01529*** (-3.908)	-0.02065*** (-7.697)	-0.02055*** (-7.564)	-0.02043*** (-7.558)
r nominal	0.02512*** (2.593)	0.02425*** (3.020)		0.02836*** (3.771)	0.02898*** (2.681)	0.02500*** (2.639)		0.02515*** (2.694)	0.03328*** (4.668)		0.03526*** (4.619)
r real			0.02411*** (3.000)				0.02424** (2.557)			0.03376*** (4.457)	
inflation			0.02648** (2.497)				0.02441** (1.966)			0.04159*** (4.198)	
Δ FX	0.01034*** (3.098)	0.01031*** (3.074)	0.01019*** (2.849)	0.00862*** (2.650)	0.00058 (1.516)	0.00576 (1.460)	0.00574 (1.360)		0.01558*** (4.781)	0.01527*** (4.381)	0.01366*** (3.652)
Δ GDP	0.00314 (0.205)				0.00139 (0.836)						
Concentration				-0.02803*** (-3.690)							
DUM Foreign	-0.00262*** (-2.704)	-0.00264*** (-2.721)	-0.00267*** (-2.763)	-0.00310*** (-3.000)							
Foreign Share							0.00104 (0.213)				0.01129* (1.657)
TIME	0.00020*** (2.809)	0.00020*** (2.936)	0.00019*** (2.855)	0.00031*** (4.291)	0.00022** (2.402)	0.00021** (2.321)	0.00020** (2.241)	0.00020** (2.049)	0.00049*** (5.742)	0.00047*** (5.635)	0.0004*** (3.598)
Const	-0.00305 (-0.836)	-0.00278 (-0.803)	-0.00265 (-0.730)	0.00485 (1.166)	-0.01102* (-1.732)	-0.00987* (-1.664)	-0.00933* (-1.577)	-0.01015* (-1.739)	0.00403 (0.720)	0.00353 (0.633)	0.00149 (0.271)
Adjusted R ²	0.5765	0.5767	0.5762	0.5780	0.5511	0.5514	0.5505	0.5509	0.6180	0.6174	0.6185
F-Statistics	22.4493	22.6905	22.4282	22.5830	17.6682	17.9172	17.6229	17.6534	20.3433	19.8804	19.9692
Cross-Sections	90	90	90	90	65	65	65	65	38	38	38
Observations	1577	1577	1577	1577	1008	1008	1008	1008	560	560	560

*, ** and ***: significant at the 10%, 5% and 1% level.

The second and third columns present similar specifications, differing only in the interest rate concept. In both equations all the independent variables are significant at the 1% confidence level except for the deposits-to-assets ratio, which is only significant at the 5% level. Size (lagged one period) matters for banks' profitability, and the relationship is positive. More capitalized and more credit active banks tend to obtain higher profitability. The deposits variable is negative, showing that banks that are less dependent on deposits for funding tend to register higher earnings. Net interest margins and efficiency present the expected relationship.

The alternative approaches to interest rates produce equivalent results, but in the real interest rate specification inflation is only significant at a level slightly higher than 1%. More interestingly, the exchange rate variable is always significant and positive, indicating that banks in the period benefited from currency depreciation. The time variable is also significant at the 1% level and positive, suggesting profitability gains with time. Finally, the foreign ownership variable is significant and negative, demonstrating that domestic banks (the control) attained, on average, a return on assets 0.3 percentage point higher than multinational institutions.

The most remarkable result for the complete sample is presented in the fourth column, which revisits the equation of the second column, adding the concentration variable. All variables maintain their sign and are as significant as before. The concentration measure is also significant at the 1% level, though negative. The result endorses the view that bank consolidation fostered competition, rather than facilitating a collusion of market players.

The second block in Table 4 refers to the sub-panel of domestic institutions, and presents interesting distinctions in regard to the entire panel. The first three columns are similar to earlier specifications, and a noteworthy result is that the exchange rate is no further statistically significant. As for the complete panel, GDP growth is not relevant for domestic banks' earnings. The nominal interest rate in the second equation is significant at the 1% confidence level, while the real rate in the third equation is significant at a level marginally higher than 1% and inflation is only significant at the 5% level. Among banks' characteristics, the deposit variable is not significant while size and credit orientation, which were previously significant at the 1% level, are only significant at the 5% level. The other variables maintain their sign and significance.

A final specification is presented in the last column of this block, including the share of banking equity held by foreigners. Contrary to evidence found by Guimarães (2002), the

relation was not statistically significant. In other words, the internationalization and subsequent de-internationalization trends that were extensively examined in this study did not influence domestic banks' earnings.

Finally, regarding foreign banks, the exchange rate variable was always significant at the 1% level. Interest rates – either nominal or real – were also significant at that confidence level, as was inflation (and significance was considerably higher comparing to equivalent specifications for domestic banks). Size has no direct relationship with profitability, while credit orientation is significant at the boundaries of the 5% level. Contradicting the evidence found for domestic banks, there is a significant negative relationship between deposits taken and profitability. Interest margin and efficiency contribute to explain returns in the expected way.

As made with domestic banks, the last column tests the impact of foreign banks' market share on their returns. The relation is positive, but the variable is only significant at the 10% level.

6.3 Exit Reasons

The above methodology can be used to investigate the determinants of recent departures from the Brazilian banking market. It is frequently asserted that the fate of several international banks that entered Brazil in the late 90s and exited after some years was due to the highly distress domestic institutions that they took over.⁴⁶ While this argument may be true for several banks – **BBVA**, **Banco Boavista Inter-Atlântico** or **Caixa Geral de Depósitos** are three examples –, there are also contradicting situations, most notably **HSBC**. Moreover, the argument is not broad enough to explain the recent departure of several long established firms like **BankBoston** or **Lloyds TSB**.

The estimates in Table 5 explore the relationship between profitability of foreign banks, exit, and time and mode of entry. Initially, an EXIT dummy variable was introduced in the standard equation. The dummy has a value equal to 1 for all newcomers that exited the market. For long established banks that also departed, the dummy was constructed in such a way that it is also equal to 1 since there was a discernible change in ownership control abroad. More specifically, for **BankBoston** the trigger point was the merger with **BofA** in 2003, for **Banco Sudameris** it was the merger of **Banca Commerciale Italiana** with **Intesa** in 1999 and for **Banca Nazionale del Lavoro** it was the bank's privatization in Italy in 1998. For the remaining

⁴⁶ See “Compras erradas prejudicaram bancos estrangeiros”, *Folha de São Paulo*, January 20th, 2003.

departed banks (**Lloyds TSB** and **Banco Português do Atlântico**), the dummy is 1 during the whole period. The EXIT dummy (in first column) was significant at the 1% level and negative. On average, exiting foreign institutions attained a return on assets 0.3 to 0.4 percentage point below their peers.

Afterwards, a NEW dummy was introduced in the same equation to investigate if newcomers were more prone to have low returns, and possibly depart, compared to long established banks. Despite being positive, the NEW dummy was not statistically significant.

The final exercise examined if there were differences in profitability across newcomers that decided to chart a new bank or that acquired a small local institution, compared to those that, more ambitiously, took over a big or medium size bank, even running the risk of being contaminated by the bad assets of the target. The TAKEOVER dummy is not statistically significant, suggesting that there is no association between mode of entry and profitability.

Table 5
Regression Results – Dependent Variable ROA

	Foreign Bank		
	(i)	(ii)	(iii)
Assets(-1)	-0.00011 (-0.124)	-0.00055 (-0.465)	-0.00042 (-0.330)
Equity/Assets	0.01177* (1.678)	0.01058 (1.522)	0.01064 (1.528)
Loans/Assets	0.01164* (1.959)	0.01218** (2.035)	0.01205** (2.034)
Deposits/Assets	-0.01162** (-2.445)	-0.01264*** (-2.644)	-0.01205*** (-2.669)
Net Interest Margin	0.12551*** (3.571)	0.13055*** (3.673)	0.13138*** (3.818)
Costs/Income	-0.02066*** (-7.708)	-0.02066*** (-7.678)	-0.02062*** (-7.736)
r nominal	0.03248*** (4.790)	0.03263*** (4.494)	0.03250*** (4.545)
Δ FX	0.01580*** (5.823)	0.01494*** (4.197)	0.01495*** (4.207)
TIME	0.00050*** (5.823)	0.00049*** (5.875)	0.00049*** (5.964)
DUM EXIT	-0.00319*** (-2.883)	-0.00362*** (-3.238)	-0.00345*** (-2.791)
DUM NEW		0.00409 (1.104)	0.00737 (1.019)
DUM TAKEOVER			-0.00439 (-0.498)
Const	0.00459 (0.823)	0.00584 (0.902)	0.00445 (0.580)
Adjusted R ²	0.6181	0.6185	0.6180
F-Statistics	19.9427	19.5777	19.1601
Cross-Sections	38	38	38
Observations	560	560	560

*, ** and ***: significant at the 10%, 5% and 1% level.

In a nutshell, multiple situations have evolved in the Brazilian market since internationalization took off in 1997, and it is simply too naive to attribute departures exclusively to the legacy of some local unsound institutions that were taken over. The above tests indicate that low profitability was likely an ingredient in the exit decision, but do not confirm any significant relationship between time and mode of entry and exit.

6. 4 Results: Overhead Costs

Table 6 shows the econometric estimations for overhead costs. As before, the first block of equations refers to the entire panel followed by the domestic and foreign sub-panels. Starting with the entire panel, the first and second columns differ only on the interest rate concept. The third column adds the foreign share variable, so that the significance of the “quiet life” assumption can be tested. All the banks’ characteristics except size are positive and significant at the 1% level. Of note, the dummy indicates that domestic banks register lower overhead costs than foreign banks – the difference is between 0.8 and 0.9 percentage point across the several specifications. The size variable is negative, suggesting that banks benefit from economies of scale and scope. However, the variable is not statistically significant in the last equation and only significant at the 5% level in the remaining specifications. As expected, banks more credit-oriented present higher costs per asset, due to, for instance, larger branching or higher managerial expenses. A similar justification is possibly valid for the deposits variable.

Among the macroeconomic variables, GDP is significant and positive in all specifications, as are both the nominal and real interest rates. Inflation also exhibits a positive relationship with costs, as expected. The exchange rate is negative, although the variable is in general less significant than the remaining macroeconomic variables. Lastly, the foreign share variable is negative but not significant.

The domestic group in the second block presents three main distinctions in relation to the entire panel. First, the deposits variable is no more significant. Second, the exchange rate does not influence domestic banks’ costs. Third, and more interestingly, the foreign share variable is negative and significant at close to the 1% level, supporting the idea that foreign competition indeed contributed to curb domestic banks’ costs in the period (“quiet life” hypothesis).

Table 6
Regression Results – Dependent Variable Ovhead

	ALL			PRIVATE DOMESTIC			FOREIGN		
	(i)	(ii)	(iii)	(i)	(ii)	(iii)	(i)	(ii)	(iii)
Assets (-1)	-0.00179** (-2.130)	-0.00193** (-2.278)	-0.00147 (-1.623)	-0.00227** (-2.298)	-0.00230** (-2.375)	-0.00130 (-1.427)	0.00253 (1.592)	0.00336*** (2.660)	0.00237 (1.430)
Equity/Assets	0.04489*** (4.476)	0.04364*** (4.323)	0.04530*** (4.299)	0.02819*** (3.023)	0.028091*** (3.013)	0.03139*** (3.535)	0.04328*** (3.127)	0.04551*** (3.255)	0.04247*** (3.091)
Loans/Assets	0.01951*** (3.904)	0.01894*** (3.779)	0.01898*** (3.781)	0.01126** (2.387)	0.01125** (2.363)	0.01246*** (2.604)	0.03979*** (4.032)	0.03832*** (3.887)	0.04004*** (3.918)
Deposits/Assets	0.01527*** (3.009)	0.01532*** (3.037)	0.01543*** (3.057)	0.00718 (1.221)	0.00719 (1.232)	0.00765 (1.328)	0.00789** (2.375)	0.02412*** (3.335)	0.02485*** (3.535)
Net Interest Margin	0.22991*** (3.871)	0.23073*** (3.886)	0.22852*** (3.881)	0.40675*** (8.109)	0.40699*** (8.131)	0.39933*** (8.284)	0.07133 (1.458)	0.07751 (1.594)	0.07821 (1.599)
Costs/Income	0.01553*** (4.056)	0.01566*** (4.110)	0.01571*** (4.120)	0.01534*** (2.789)	0.01525*** (2.764)	0.01537*** (2.804)	0.01617*** (4.263)	0.01745*** (5.091)	0.01734*** (5.194)
r nominal	0.05015*** (3.868)			0.03477*** (3.375)			0.06267** (2.418)		
r real		0.05386*** (4.619)	0.05006*** (4.380)		0.03551*** (3.230)	0.02887** (2.415)		0.04671** (2.356)	0.05545*** (3.073)
inflation		0.07860*** (5.459)	0.07927*** (5.659)		0.03399* (1.893)	0.03541** (2.461)		0.10695*** (3.971)	0.10818*** (4.578)
Δ FX	-0.00963** (-1.987)	-0.01035** (-2.166)	-0.00820* (-1.695)	-0.00104 (-0.292)	-0.00104 (-0.306)	0.00314 (1.127)	-0.01102 (-0.943)	-0.01569 (-1.485)	-0.01858* (-1.809)
GDP	0.04796*** (4.937)	0.05056*** (5.367)	0.05304*** (5.966)	0.04470*** (3.180)	0.04430*** (3.104)	0.04865*** (4.077)	0.02900 (1.356)		
DUM Foreign	0.00795*** (3.062)	0.00777*** (2.990)	0.00864*** (3.183)						
Foreign Share			-0.012848 (-1.469)			-0.02400** (-2.422)			0.02317 (1.346)
Const	-0.21034*** (-4.785)	-0.22246*** (-5.288)	-0.23785*** (-6.152)	-0.18176*** (-2.989)	-0.17914*** (-2.866)	-0.20800*** (-4.075)	-0.18237** (-2.203)	-0.05988*** (-2.904)	-0.05231** (-2.279)
Adjusted R ²	0.7248	0.7254	0.7256	0.8255	0.8254	0.8265	0.6333	0.6387	0.6393
F-Statistics	43.0963	42.7954	42.4262	65.9291	65.0011	64.6363	22.2469	22.7477	22.3485
Cross-Sections	90	90	90	65	65	65	38	38	38
Observations	1577	1577	1577	1006	1006	1006	561	561	561

*, ** and ***: significant at the 10%, 5% and 1% level.

For the foreign banks' group, the size variable is now positive, but only significant in one specification. Surprisingly, foreign banks appear to be less capable of benefiting from economies of scale. Contrary to former evidence, net interest margins are not significant in this case. Despite being negative, the exchange rate is only significant in the last equation and at the 10% confidence level. Finally, the foreign share is positive and significant at the 5% level, which can be associated with the fact that foreign entry was in general accompanied by larger administrative structures and branch networks compared to the relatively regulatory-constrained banks in the beginning of the sample.

7. Conclusions

Using an accounting framework and panel data estimation, the paper showed that greater foreign banking presence contributed to reduce overhead costs of domestic banks, but not their profitability. This conclusion is consistent with widespread international evidence that internationalization forces local firms to operate more efficiently. The econometric estimation confirmed that there was indeed a relationship between foreign market share and cost reductions, a fact that strongly supports the view that bankers had to sacrifice their "quiet life" and cut costs when confronted with a more competitive environment. The econometric estimation complements the findings of Bevilaqua and Loyo (1998), as they reported an improvement in banking efficiency in the second half of the 90s, without being able to identify the underlying cause – either foreign competition or the adjustment to low inflation environment.

Cost efficiencies are a key element to explain domestic banks higher profitability relative to foreign banks. The lower relative profitability, especially in view of perceived risks, led many foreign institutions – newcomers or long-established alike – to simply exit the market or give up their sole operations, associating instead as minority shareholders with the more efficient local players. In this respect, the Brazilian banking system is probably unique in the emerging world, with foreign banks succumbing to the higher efficiency of their competitors.

Due to macroeconomic stability, fast GDP growth and the industry's robust profits, foreign institutions have recently shown a new, mounting interest in the Brazilian banking market. The main local financial newspaper, for instance, reported in March 2007 that several foreign banks were preparing to land in Brazil, although their main difficulty was the lack of takeover

opportunities.⁴⁷ Banking FDI inflows indeed recovered in 2006/2007, while various foreign institutions initiated procedures to be granted authorization to enter the market – including some of the banks that have earlier departed. If this trend is confirmed, it will not be the first time that foreign banks behave procyclically in Brazil. But competition with domestic banks will likely be even more difficult than in late 90s and beginning of this decade.

⁴⁷ See “Avanço do crédito atrai nova leva de bancos ao país”, *Valor Econômico*, March 15th, 2007.

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Annex

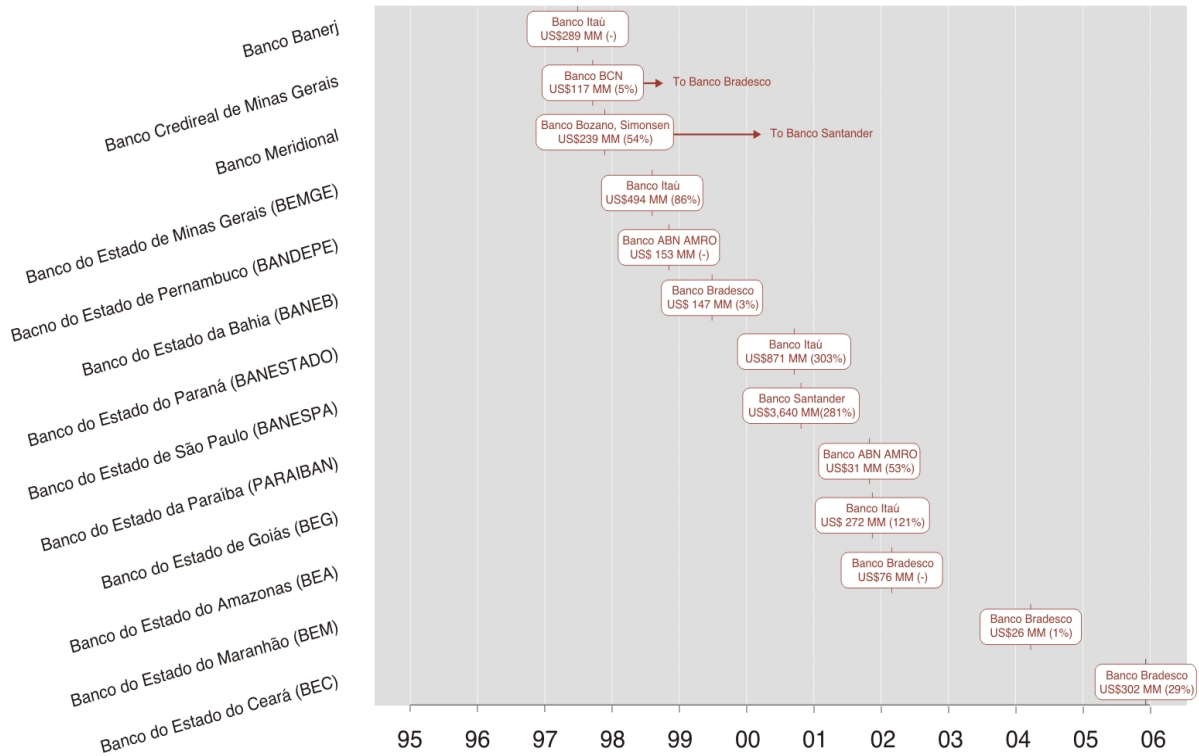
Largest M&As with Foreign Banks in Brazil (1996-2006)

year	Target	Acquirer	value (US\$ MM)	Observations
2000	Banespa	Santander	3,640	Privatization auction
2006	BankBoston / BofA	Itaú	2,200	Sale in exchange for a 5.8% stake in Itau (additional sale of operations in Chile and Uruguay increased stake by 1.7%)
1998	Banco Real	ABN AMRO	2,100	-----
2006	Pactual	UBS	1,000	Terms of agreement stipulate an additional payment of US\$ 1.6 billion in 5 years, depending on performance
2003	BBVA	Bradesco	850	75% of payment in cash, plus a 4.5% stake in Bradesco
2003	Lloyds TSB	HSBC	815	Purchase of Lloyds' Brazilian operations. Payment in the UK
2003	Sudameris / Intesa	ABN AMRO	800	25% of payment in cash. Intesa remained with a stake in Banco Real, sold to controller in 2005 and 2006
2000	Bozano, Simonsen	Santander	700	(approximate, value not made public)
1998	Garantia	CSFB	675	70% of payment in shares of CSFB
2000	Bandeirantes / Caixa Geral D.	Unibanco	570	Sale in exchange for a 12.3% stake in Unibanco

Source: Own elaboration.

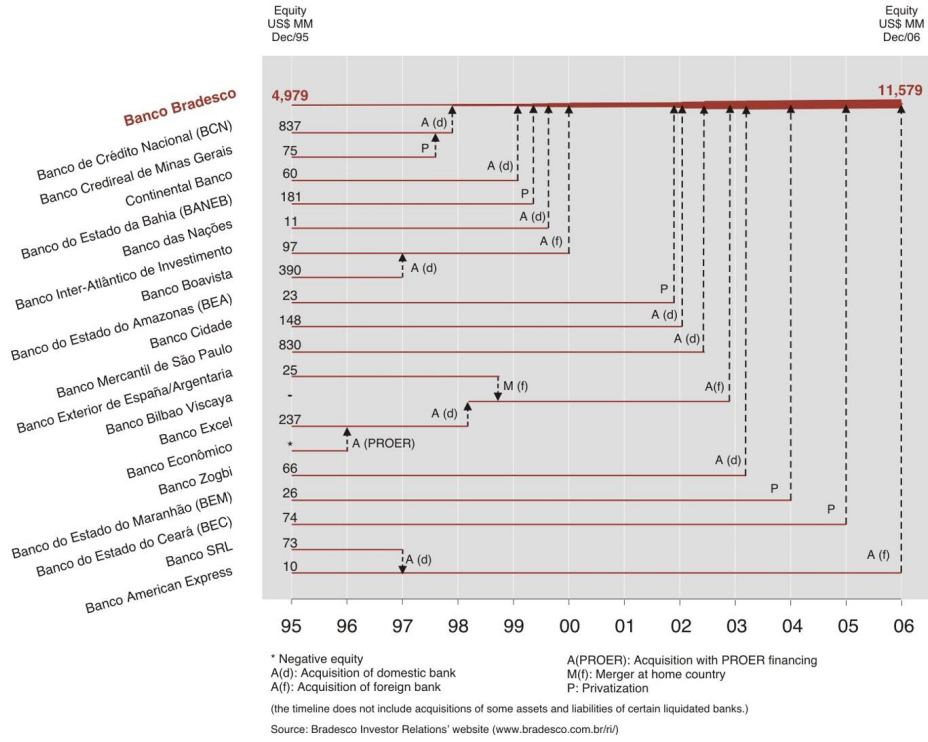
Timeline Privatizations

(acquirer, price paid and premium over minimum bid)

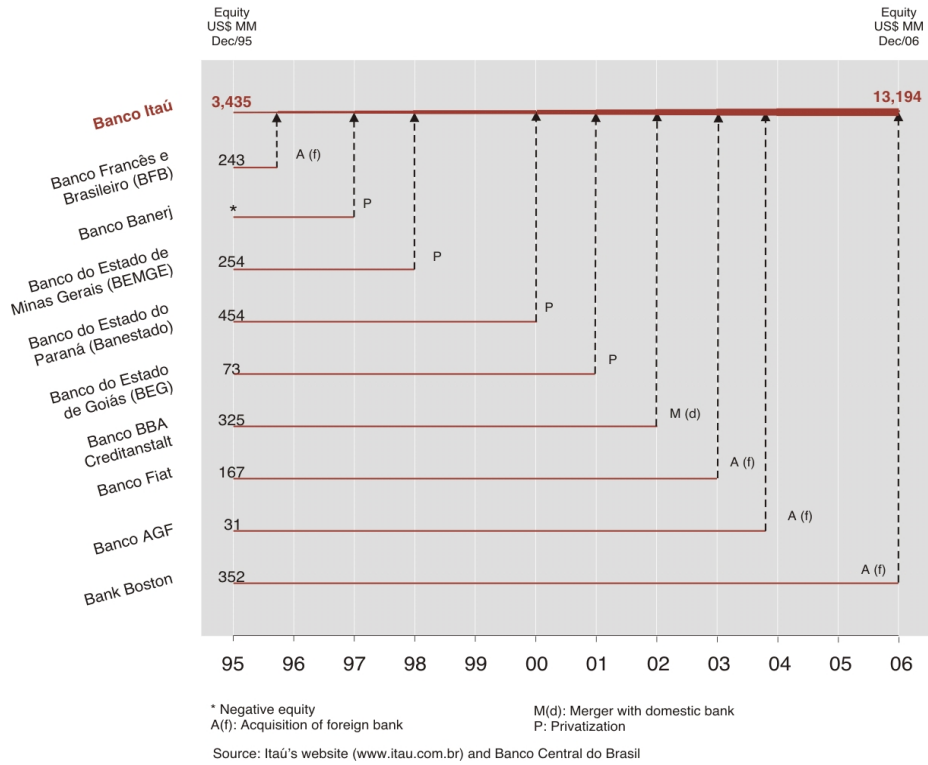


Source: Banco Central do Brasil

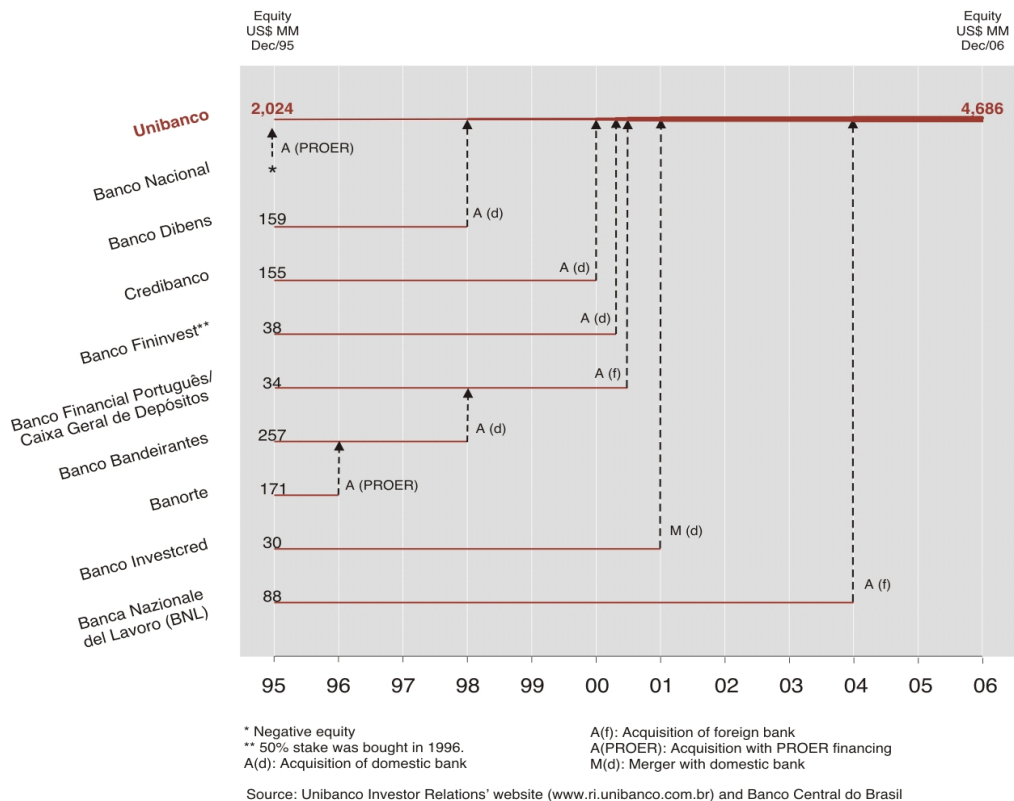
Timeline M&As 1: Banco Bradesco



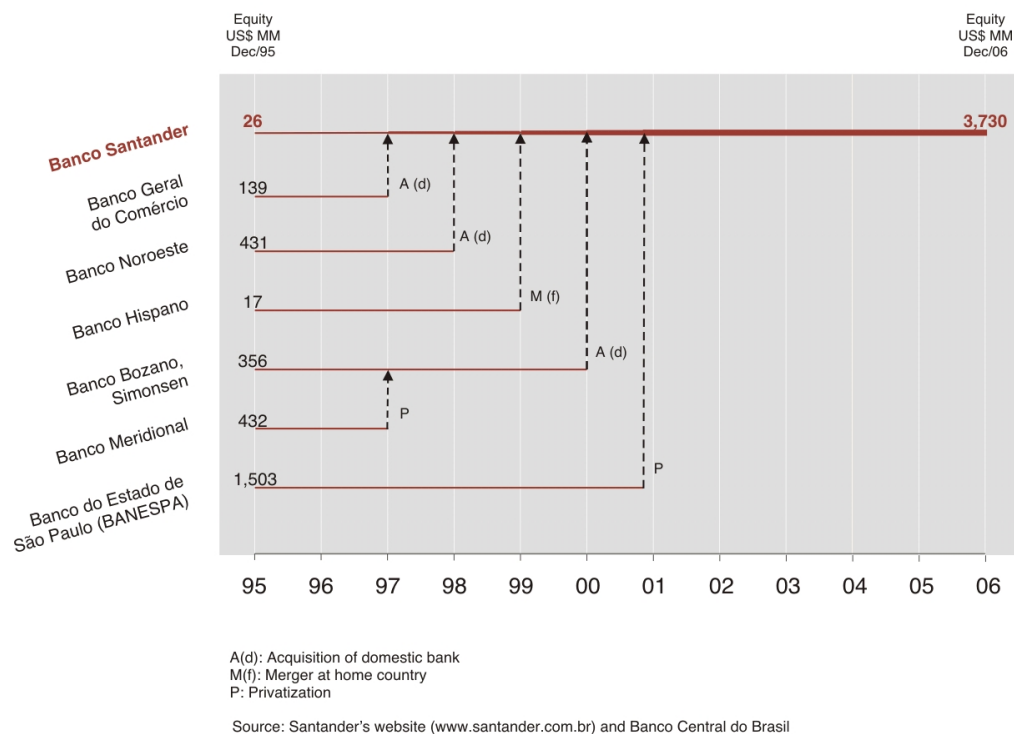
Timeline M&As 2: Banco Itaú



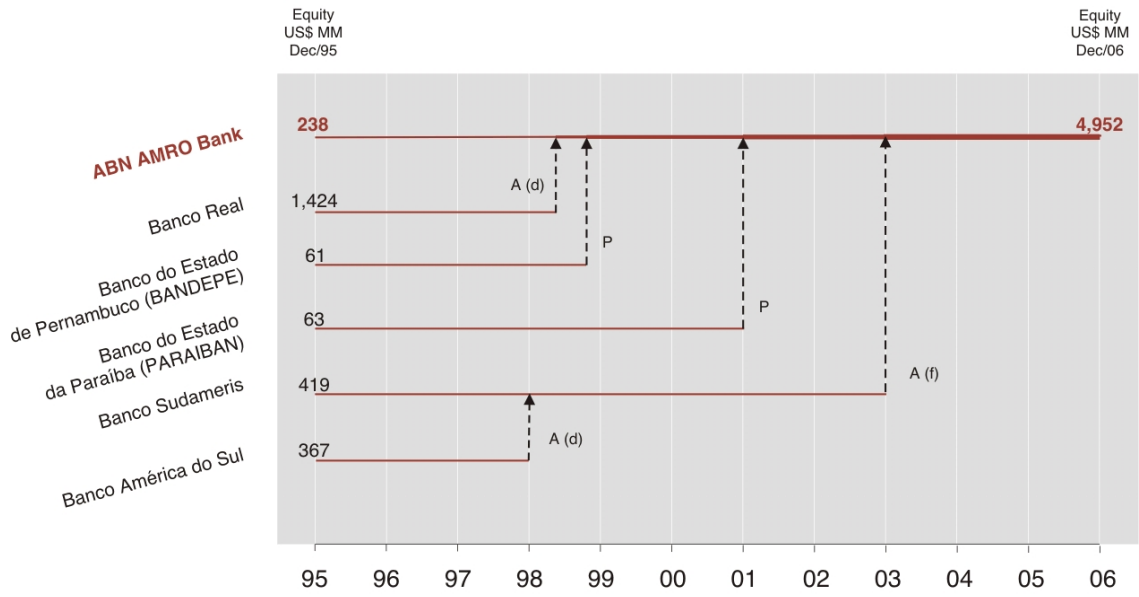
Timeline M&As 3: Unibanco



Timeline M&As 4: Banco Santander



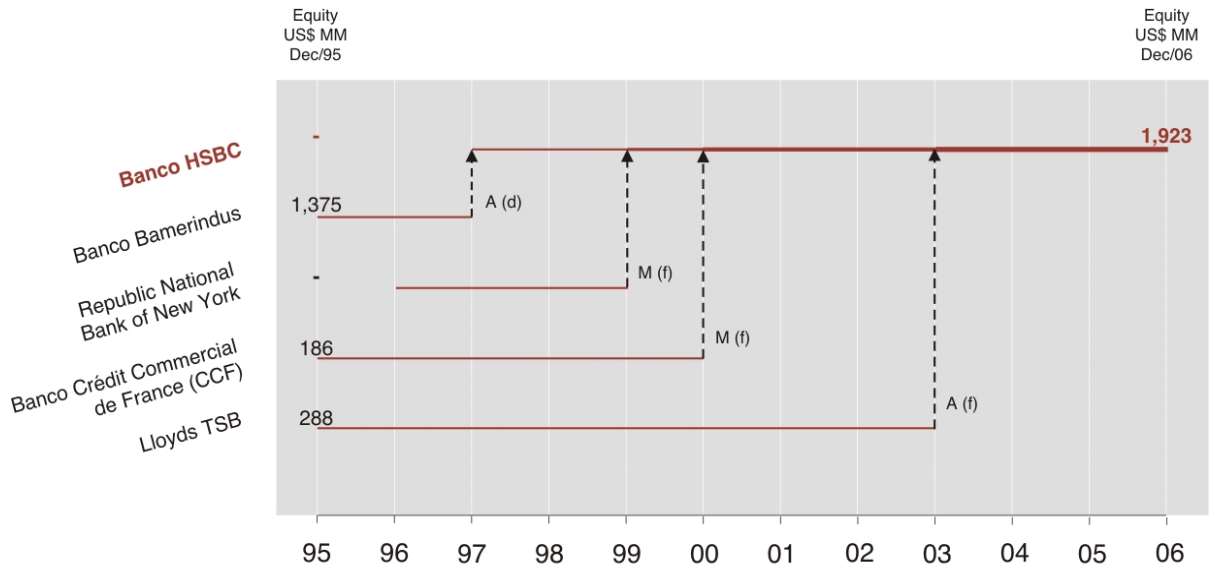
Timeline M&As 5: ABN AMRO Bank



A(d): Acquisition of domestic bank
 A(f): Acquisition of foreign bank
 P: Privatization

Source: Banco Real's website (www.bancoreal.com.br) and Banco Central do Brasil.

Timeline M&As 6: HSBC Bank



A(d): Acquisition of domestic bank
 A(f): Acquisition of foreign bank
 M(f): Merger at home country

Source: HSBC Fact Sheet (2005) and Banco Central do Brasil

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