
The Brazilian Financial System: Recent Restructuring, International Comparisons, and Vulnerability to a Foreign Exchange Crisis

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Abstract

Based on the balance sheets of financial institutions, this paper reveals that domestic private-sector banks are currently in a less vulnerable position than they were in the first years after the introduction of the Real Plan. The rate of default in the banking system is strongly concentrated in federal multiple and commercial banks. Moreover, in comparison with other countries the major Brazilian private-sector banks are less vulnerable than banks in other emerging economies in Latin America and Asia. The Program for Reducing State Participation in Banking Activities (Proes) has sharply decreased the market share of state banks, in addition to improving the allocation of resources among the remaining ones. Also the arrival of foreign banks has strengthened and improved the efficiency of the national financial system. Domestic private-sector banks are still very hegemonic in comparison to foreign banks and have responded to the more competitive environment by becoming more efficient and participating aggressively in the recent privatization of state-controlled banks. Finally, this paper explains that the Brazilian national financial system should not be seriously affected by the recent devaluation of the currency.

1. Introduction

Interest in the emerging countries financial systems grew substantially in 1997, due to the onset of the Asian crisis. Krugman (1998) points to the financial condition of the region's banks as being one of the main causes of the crisis. The author argues that the existence of implicit government guarantees for the debt obligations of these banks stimulated their financial systems to lend excessive amounts of funds, producing an artificial inflation in the prices of financial assets. This increase in the value assets improved the performance of there region's banks, contributing to an even higher level of lending. Eventually, pessimism with respect to the solvency of these systems – in particular, the fact that the regional government would stop guaranteeing new loans – led to a reversal in the tendency towards high values for financial assets, and finally to the deterioration of banks balances what reinforced the drop in assets price.

The belief in the importance of the stability of a national financial system has also been shared by the chairman of the US Federal Reserve Board, Alan Greenspan. Reflecting on the development of the Asian crisis at the beginning 1998, Greenspan affirmed that it is the lack of liquidity or the insolvency of a banking system which transforms apparent small imbalances in an economy into a crisis situation. In a context of fragility banks' caused, for example, by high default, a foreign shock simply increases the lack of trust in the banking system. As a result, the banks lose deposits. The flight of capital, in turn, increase the pressure on the exchange rate, forcing the raising of interest rates and a depreciation in the value of assets.

Finally, the credibility and the degree of development of a national financial system are also considered important for a country's growth. Levine (1997) reveals that between 1976 and 1993, the countries with more developed financial systems had greater economic growth rates 3.2% a year on average that the countries with a less developed system that grew only 1.4%. Stiglitz (1998) asserts that investments in research and development are quite sensitive to credit restrictions, given the difficulty in calculating the risk and return of these investments and the lack of guarantees involved.

In Brazil, the programs for restructuring the financial system have been considered fundamental in differentiating the country from the Asian emerging nations. One of the biggest differences refers to the smaller rate of non-performing credits in relation to the total credits conceded by Brazilian banks, compared to the banks of other developing countries. The entry of foreign institutions has also contributed to giving more solidity to the financial system. Furthermore, foreign banks have been stimulating an increase in the efficiency of national banks, forcing the institutions already established in the country to adjust themselves to a more competitive environment.

The purpose of this paper is to evaluate the restructuring of the Brazilian financial system in the post-economic stabilization period, as well as its current solidity. Due to the fear that the recent exchange devaluation will have a significant negative impact on the country's banks, the degree of vulnerability of such institutions to a change in the exchange rate is also analyzed. In particular, this paper examines the following questions:

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- a) Are domestic private-sector banks currently in a less vulnerable position than they were in during the first years after the Real Plan?
 - b) What are the current rate of non-performing loans of the financial institutions, and what is the possibility of a systemic crisis?
 - c) Has the Proes effectively been leading to a reduction in the number of state-run banks and/or to the restructuring of such institutions, or is it a simply repetition of previous plans?
 - d) Has the entry of foreign banks been contributing to a more solid and efficient financial system?
 - e) Do domestic private-sector banks have the conditions to survive the entry of foreign banks?
 - f) What is the financial system's degree of vulnerability to the recent exchange rate devaluation?

Besides the introduction, this paper contains six sections. Section 2 makes a brief retrospective of the financial system conditions prior to the stabilization of the economy and discusses the measures taken to strengthen the national financial system, the programs for restructuring state banks, and the decision to allow foreign banks into the national financial system. Section 3 presents data on the change in the number of banks, the effects of the Program for Restructuring and Strengthening the National Financial System (Proer), the restructuring of the state and federal banks, and the entry of foreign banks. Arguments both in favor and against the latter presence are presented as well. Section 4 compares state and federal banks, domestic and foreign private-sector banks, based on information extracted from the results of these institutions. In this section, leverage, asset quality, and profitability indicators for each bank and the national banking system as a whole are presented. Section 5 analyzes the major banks operating in Brazil and make comparisons with the major banks in the United States and other emerging countries in Latin America and Asia. Section 6 evaluates the national financial system's degree of vulnerability with respect to the recent devaluation of the exchange rate. Section 7 presents the main results.

2. Changes in the Legislation for the Brazilian Financial System

This section analyzes the measures taken to strengthen the Brazilian financial system, especially the programs for restructuring private-sector and state-controlled banks and the decision to allow foreign banks to entry into the national financial system.

2.1. Changes in the Legislation for Financial Institutions

Inspired by the US model, the financial reforms of 1964 and 1965 established a system based on specialized institutions.¹ Commercial banks were only permitted to conduct short-term credit operations using cash deposits. Investment and development

¹ The Bank Reform Law of 1964 (Law 4,595), in addition to establishing the specialized institutional model, was responsible for the creation of the Brazilian Central Bank (BC) and the Brazilian Securities and Exchange Commission (CVM). The Capital Markets Law of 1965 (Law 4,728), among other dispositions, regulated the activities of Brazilian stock exchanges, created tax incentives for the issuing and acquisition of stocks and debentures, and defined the functions of an investment bank.

banks, in turn, would be responsible for long term loans, using term deposits and funds from abroad. Credit, financing and investment (financier) corporations should operate in the consumer credit and in personal loans, issuing bills of exchange. Finally, the institutions of the Federal Housing System (SFH) would provide mortgage financing based on resources obtained through savings deposits and real estate bills. In practice, however, the financial system that resulted from the adopted reforms was far less segmented than the legislation indicated [Carneiro et al. (1993)]. Different financial institutions belonging to the same conglomerate could operate in the same physical space but with separate accounting practices, in such a way as to comply with the legislation.

In June 1988, the Central Bank introduced the Accounting Plan for Institutions of the National Financial System (Cosif), which made the unification of financial institutions under a single accounting plan possible. In September of the same year, of Resolution 1,524 of the Brazilian Securities and Exchange Commission (CVM) was approved, creating the so-called multiple banks, which could operate in, at least, two and, at most, four of the old financial institutions' functions: commercial banks, investment banks, development banks, financing corporations, and savings and loans institutions.

The Federal Constitution of 1988, especially Article 192, states the redesigning of the national financial system, to be regulated by complementary law. The article is quite polemic. Chapters I and II require the separation of banking from non-banking institutions (insurance, pension and capitalization companies), which in fact constitutes a return to the specialized banks model. In addition to this, the Brazilian post-1964 experience showed that in the practice this model ended up not working. However, the main criticisms were addressed to the 3rd paragraph, which established a type of usury law for real interest rates.² According to the paragraph, real interest rates, including commissions and any other direct or indirect remuneration related to the concession of credit, cannot be greater than 12% per annum. In fact, such a fixing of interest rates has been the main reason for the fact that, after ten years, the article still has not been transformed in law. It is worth noting that legislation specifies that Article 192 must be implemented in full. The passing of an amendment removing the item from the constitutional text has been hindered by political differences, given the unpopular nature of such decision.

Since the Real Plan at the beginning of July 1994, reforms undertaken in the financial area have had mainly the purpose of strengthening and restructuring the national financial system. Such reforms became essential with the stabilization of the economy, especially with the loss of important revenues deriving from inflationary transfers, the overnight float. Until then there was no institutional framework which could protect the system against the risks of a financial crisis. The role of the Central Bank in helping institutions took on a more emergency-related character, using funds from monetary reserves which were in part collected through the Financial Operations Tax (IOF).

In August 1994, in agreement with the Basle Accord, the Central Bank published Resolution 2,099, establishing minimum capital limits for the constitution of a bank, besides

² The Usury Law (Decree 22,626 of 1933) prohibits the signing of any contract that establishes a nominal interest rate greater than 12% p.a. It was repealed by the Law 4,595. It is worth observing that before 1964, banks sought ways around this regulation by requiring reciprocity, service charges etc.

additional limits that varied according to the degree of risk in a bank's assets. A limit of R\$ 7 million was set for the capital stock and equity of commercial banks; R\$ 6 million for investment and development banks and real estate credit societies; and R\$ 3 million for financing institutions. In the case of multiple banks, the total amount of their portfolios was reduced by 20%. For foreign institutions, the minimum capital limit was set at 100% over the amount fixed for domestic institutions (a requirement that was abolished in November 1995).³ Furthermore, financial institutions were required to maintain a minimum level of adjusted equity corresponding to 8% of the assets weighted by risk. Assets like cash, reserves held by the monetary authority, federal securities and foreign reserves deposited in the Central Bank were classified as having zero risk. Deposits maintained in banks, applications in gold, foreign currency and tax credits were classified as having a risk of 20% while state and municipal securities and inter-bank applications had a risk of 50%. Finally, the risk involving loans and financing operations, applications in stocks, debentures, Eletrobrás debt, TDAs (agricultural debt securities), operations linked to stock exchanges, and commodities and futures were classified as having a risk of 100%.

The implementation of a more ambitious set of measures for restructuring the financial system, however, was postponed for the second year of the Real Plan. In the first months, the loss of the revenues from floating operations was compensated by an increase in credit operations, stimulated by the fast growth resulting from economic stabilization. Nevertheless, a decrease in the rhythm of economic growth in the second quarter of 1995, due to the adoption of a highly restrictive monetary and credit policy resulting from the Mexican crisis, made the adjustment of Brazilian banks to the new system inevitable. Delinquent and non-performing loans grew substantially. The problems became even worse with the liquidation of Banco Econômico in August 1995, which concentrated its liquidity in large-scale institutions.

Due to these facts, the government established a group of measures aimed at restructuring and invigorating the financial system in November of that year. Through Provisional Measure (MP) 1,179, fiscal incentives were created for the incorporation of financial institutions, allowing the incorporating institution to list credits from the acquired institution that were difficult to recover as losses. The MP also allowed the institution to record the difference between the equity value of the capital stock it bought and the value of the purchase in its books as a premium, compensating for this difference in the future results of the institution and, in this way, providing fiscal benefits.

Provisional Measure 1,182 expanded the powers of the Central Bank in such a way as to make it able to take preventive action in strengthening the financial system. The measure allows the monetary authority to demand from the institutions with liquidity problems a new injection of funds, the transfer of stock control or corporate restructuring through incorporation, a merger or a split-up. That MP, transformed in March 1997 into Law 9,447, allowed the Central Bank to confiscate the controlling stock of a financial group and subsequently sell it by means of a public tender, in case the institution did not accept the Central Bank's recommendations. It also extended to the controlling stockholder the joint

³ Institutions with headquarters located outside the metropolitan areas of Rio de Janeiro and São Paulo were allowed a 30% reduction in the minimum capital required. Furthermore, for São Paulo, the law also specifies that these limits must be monthly updated after September 1st, 1994, based on the official index established for monetary correction.

responsibility with the institution's administrators in the case of any problems resulting from the operation of the institution.

Still in November 1995, Resolution 2,208 created Proer with the purpose of assuring the liquidity and solvency of the national financial system.⁴ Proer included setting up a special line of financial assistance targeted to financial, administrative, operational and shareholder reorganizations that result in the transfer of control or the modification of a financial institution's corporate objective. In addition to this, institutions participating in this program could defer their restructuring, reorganization or modernization expenses for up to ten half-year periods, to be temporarily liberated from having to meet the operational limits defined by the Basle Accords. Funds for this program came from compulsory deposits contributed by the other institutions which comprise the financial system, therefore not compromising the fiscal budget.

Through Resolution 2,211, the Central Bank created the Credit Guarantee Fund (FGC), establishing a guarantee of up to R\$ 20,000 for every deposit or investment titleholder in the case of a government intervention, out-of-court liquidation, bankruptcy, or perception on the part of the Central Bank of a state of insolvency in any financial institution after the beginning of the Real Plan (June 1994). The guarantee applies to all cash, term, and savings deposits, as well as bills of exchange, and real estate and mortgage deeds. The funds for these guarantees come from the financial system itself, from a contribution of 0.025% on the monthly balances of the insured accounts. The FGC is administered by a board of directors comprised of three to nine effective members and the same number of substitutes, who must be native residents of the country, and designated by the National Federation of Financial Institutions (CNF), including the chairman.

Also in November 1995, Resolution 2,212 made the formation of new financial institutions more difficult and created incentives for mergers, incorporation, and transfer of stock control. The regulation set a higher initial capital limit for the establishment of new banks. For the first two years of a financial institution's operation, its adjusted net equity must correspond to 32% of all assets weighed by risk, a percentage that drops gradually until the sixth year, when it reaches the 8% limit set by the Basle Accord. Cases involving mergers, incorporation or transfer of stock control, however, were exempt from that new requirement. Furthermore, the resolution demanded that bank controllers foster an economic condition compatible with the financial institution's corporate objective and corresponding to, at a minimum, 220% of the larger of the following parameters: accounting equity value; minimum capital required by regulation; and acquisition price.

In March 1996, Provisional Measure 1,334 delegated responsibility for any cases of irregularities found at a financial institution to the audit companies or independent accounting auditors which reviewed the institution's books. In this way the measure sought to force external auditors to inform the Central Bank regarding any eventual difficulties found in the financial institutions.

In July of the same year, Resolution 2,302 obligated domestic financial institutions with

⁴ The resolutions analyzed in this study were edited by the Central Bank.

branches or stock holdings in financial institutions abroad to comply with the operational limits referred to in Resolution 2,099, based on consolidated financial figures, and raised the minimum capital limit necessary for the constitution of such banks and branches abroad. It was also defined that the Central Bank would be authorized to monitor the operations of the branches abroad in which domestic financial institutions have holdings. In case that monitoring is not allowed by the foreign countries in question, all the banks' holdings in that country must be deducted from its equity when setting the financial institutions' operational limits.

At that same month, Resolution 2,303 allowed financial institutions to collect fees for the services they provide, from the issuing of a second checkbook in a single month to other, more sophisticated services. Such measure became necessary because of the loss in revenues for banks resulting from the end of high inflation.

In May 1997, the National Monetary Council (CMN) created the Central Credit Risk System (Resolution 2,390).⁵ The measure establishes that financial institutions must identify and inform the Central Bank on all customers (individuals and businesses) who have not debts greater than R\$ 50,000. The system also allows financial institutions access to every customer's debit balance with the financial system as a whole, if duly authorized by the customer, thus contributing to a bank's ability to distinguish between credit borrowers and facilitate a reduction of the interest rates charged on active operations.

Also in June 1997, the minimum capital required for financial institutions was raised again, from 8% to 10% of all assets with risk, by means of Resolution 2,399. The new limit was higher than that established by the Basle Accord, representing a reduction in the ceiling for loans, for example, from 12.5 times to ten times the net equity. That resolution also raised the provision for the total amount exposed to risk in swap operations to 16%. Circular 2,784 of November 1997 raised the minimum capital limit to 11%, but allowed financial institutions until the end 1998 to adjust to the new measure. Furthermore, the provision for swap operations rose to 20%, with banks given up to February 1998 to adapt.

In May 1998, Resolution 2,493 opened the possibility of banks selling part or all of their credit portfolios to corporations set up for that exclusive purpose, from then on denominated Financial Credit Securitization Companies (CSCFs). Moreover, the measure also covered defaulted updated credits in arrears and in liquidation. CSCFs are able to buy the credits of financial institutions and securitize them; that is to say, to transform them into negotiable securities. They also centralize the collection of the acquired credits, thus reducing administrative costs. With these measures the recovery of borrowed capital was facilitated, or at least a part of it, stimulating financial institutions to expand credit supply. In permitting the transfer of credits from institutions under intervention, the measure also made the process of restructuring banks easier.

⁵ The bulletins 6,315 and 6,463 of August and November 1998, respectively, provide information on the availability of the following Sisbacen transactions which permit access to the Central for Credit Risk: PDEV300 – RISK CENTRAL – GENERAL CONSULTATIONS – INSTITUTIONS; PDEV310 – RISK CENTRAL – CLIENT CONSULTATIONS – INSTITUTIONS; PDEV320 – RISK CENTRAL – PROCESSING RESULTS. Transactions PDEV310 and DPDEV320 are simply a breakdown of the options existing in transaction PDEV300.

Finally, in December 1998, Resolution 2,554 established that financial institutions should present a program to the Central Bank for implementing internal control systems that are in accordance with the Basle Committee. Such systems must define the responsibilities for each one of the institution's member, helping to identify the persons responsible for any eventual crimes. It also requires a continuous evaluation of the different kinds of risks associated with each of the institution's activities; a separation of the activities that make up the integral parts of the institution, in such a way as to avoid conflicts of interest; a means of identifying internal and external factors which may hinder the accomplishment of the institution's objectives; the existence of communications channels which assure employees access to relevant information to their responsibilities; the systematic accompaniment of the activities that are developed; and the existence of periodic information systems safety tests.

2.2. The State Public-Sector Reduction Incentive Program

The debate surrounding the need for state banks and their eventual privatization intensified at the end of the last decade and the beginning of the present. Among the arguments presented in favor of state banks was the need to correct market distortions and socialize gains resulting from inflationary transfers. The fact that without the existence of state banks, many of Brazil's municipalities would not be assisted by banks is another strong argument in favor. On the other hand, critics of these arguments affirm that the differences between the social return and the private return of projects would be better solved via the correct application of incentives and disincentives such as subsidies or indirect taxes, which could bring to the solution of the problems by the private-sector [Cysne and Faria (1997)]. The socialization of inflationary transfers could be achieved from directly taxing these financial institutions by means of taxes imposed on profits or compulsory deposits [Werlang and Fraga Neto (1993)]. Furthermore, Papageorgiou (1992) suggests that in low-income municipal districts, where the placing of bank agencies is not profitable, savings deposits and other payments could be made at post offices.

The main argument against state banks, however, referred to the type of relationship that these institutions used to have with their controllers and with the federal government. In fact, traditionally there were few restrictions to the amount of financing that state governments could obtain from their state banks. Though the existence of legal limits on the amount of loans that financial institutions could make to their controllers, such a restriction was rarely respected in the case of state banks. Thus, abuse in the issuing of loans at these institutions ended up making the very cash flows of their states insufficient to attend to the cost of servicing their debt. With the state governments becoming defaulter, their banks ended up having liquidity problems. In such cases, political pressures from state governors invariably forced the Central Bank to bail out these institutions, either officially, through rediscounting or providing a liquidity loan, or indirectly, by injecting liquidity in the market. As a consequence, however, new currency was effectively issued, making the conducting of monetary policy and the stabilization of the economy more difficult.

Until 1996, several programs aimed at restructuring the state bank system had been adopted. However, financial institutions continued to present situations involving imbalances.

According to the Central Bank (1998a), the implicit cost of these programs and interventions was estimated at more than R\$ 30 billion in 1998 values. Among the main programs adopted were:

- In 1983, the Public Credit Sponsorship Program (PAC), comprised of a line of liquidity loans with privileged conditions.
- In 1984, the Financial Recovery Program (Proref), a line of loans with more rigorous conditions linked to fiscal adjustments.
- In 1986, the junction of PAC with Proref, with expanded penalization mechanisms.
- In 1987, a Special Temporary Administration Regime (Raet) was decreed for ten institutions in that year alone.
- In 1988, an US\$ 800 million line of financing was provided for all state banks which complied with required adjustments.
- In 1990, the Recovery Program - line of loans linked to adjustments, at the same time that four state banks were liquidated out-of-court.
- In 1992, a special line was created for the banks liquidated in 1990, also based on required adjustments.

In August 1996, the Proes program began via Provisional Measure 1,514, with the objective of restructuring the state public-sector financial system. For the first time, federal assistance of 100% of the funds necessary for restructuring of state banks was conditioned on the privatization of these institutions, on their transformation into development agencies, or on their liquidation. In the case that no transfer of stock control or transformation into development agencies would take place, federal assistance would be limited to 50% of the funds necessary. The remaining 50% would have to be provided by the respective state governments, with the necessary premature quitting of any debts that the financial institution has; the assumption of all the financial institution's debts with third parties that were in effect on March 31, 1996; the capitalization of the financial institution; and making changes in their management system able to assure their professionalization. Government financing was for a period of 30 years, with monthly payments and an interest rate corresponding to the variation of the General Price Index (IGP-DI) plus 6% a year.

The resolution also specified that states should provide the appropriate guarantees required by their financial institutions and authorized, in cases of delinquency, that their respective Treasuries draw the amounts in question against bank deposits resulting from own revenues, or against constitutional transfers made with other units of the federal system. In this way, unlike the past, federal assistance was accompanied by the imposition of a more efficient system for managing banks' funds.

After its first publication, the Provisional Measure underwent some modification in order to fit its terms to unforeseen situations. The fourth version made the qualification of development agencies as non-financial institutions explicit, thus impeding them from raising funds through the public. In its 11th edition, issued in June 1997, the date-limit for signing the contracts was extended the up to 3/31/98 for the states interested in restructuring their financial institutions, and up to 6/30/98 for the other cases. In July 1998, by virtue of the economic imbalance of most of the state banks, MP 1,702-26 established that the only option still enforced for the states who wished for financing from the federal government to

restructure the equity of their banks would be to cede control of the institutions to the federal government, which would then either privatize or liquidate them. The effectiveness of that option was conditioned to the committing administration of such a financial institution to the Central Bank by July 10, 1998. MP 1,773-32 of December 1998 re-extended the period for adhering to Proes, with the states having to show an interest in participating in the program until January 15, 1999.

2.3. Changes in the Legislation on Foreign Capital

Law 4,131 of September 1962 applied the principle of reciprocity in the question of allowing foreign institutions entry into the Brazilian financial system. Article 50 establishes “that to foreign banks authorized to operate in Brazil” would be applied the “same barriers or restrictions” that the legislation in their countries of origin imposed on Brazilian banks wanting to establish operations in them [Bastos and Martins (1990)]. In Article 51, banks whose headquarters are located in countries where the law imposes restrictions on the operation of Brazilian banks were prohibited from acquiring more than 30% of the voting stock in any Brazilian bank. The share of foreign capital in a Brazilian financial institution was limited to 50% of the bank’s capital stock and a third of its voting capital.

In 1964, Law 4,595 established that the entry of foreign financial institutions could only be done by means of a prior authorization by the Central Bank or by a Congressional decree. Freitas (1998) points out that, even though an explicit, and formal policy didn’t exist, foreign investors’ entry into the national financial system was restricted to a minority share in investment banks and leasing companies. On the other hand, no restrictions were placed on the installation of representative offices. In spite of this, however, the presence of foreign banks in Brazil increased during the second half of the 1960s and over the 1970s. In counterpart, in order to facilitate expansion of Brazilian banks abroad, countless bilateral agreements and entry authorizations were signed based on the application of reciprocity principle.

The Constitution of 1988 kept open the possibility of foreign financial institutions having access to the domestic market. Article 52 of the Transitory Dispositions Act prohibited, until regulated by complementary law, the installation in Brazil, of new agencies for foreign financial institutions and the increase of the share in the of capital of financial institutions based in the country and of individuals or companies domiciled abroad. However, such restrictions did not apply to the authorizations resulting from international agreements, reciprocity, or decisions made in the Brazilian government’s interest.

In August 1995, Legislative Intent 311, authored by the Minister of Finance and approved by the President of the Republic, established that it was in the interest of the country to allow the entry or an increase in the participation of foreign institutions in the domestic financial system. Among the most salient aspects are: a shortage of national capital; greater operational efficiency and financial capacity of foreign banks, with positive effects on the price of services and on the cost of funds offered to the public; and the introduction of new technologies. In November of the same year, Resolution 2,212 eliminated the stipulation that the minimum capital of a foreign bank must be double of that required of a domestic bank.

Requests to enter the Brazilian financial system are analyzed taking into consideration, besides the financial capacity and solidity of the foreign institution, “national interests and priorities.” That is to say, to help resolve problems of banks in difficulty, strengthen the national financial system, and reiterate the government’s intent to continue its policy of opening the domestic financial system to foreign participation [Freitas (1998)]. By virtue of the significant number of banks interested in entering the country, the Central Bank has been demanding the payment of a “toll” as their contribution to the recovery of public funds used for the restructuring of the financial system. The amount collected for these banks has oscillated mainly in function of the situation in which the institution to be acquired is found, as will be analyzed in Section 3.3.

3. Restructuring the Financial System

In this section we analyze the evolution of the number of banks before and after the inception of Real Plan; the effects of Proer, instituted in November 1995; the restructuring of the federal and state public financial system (after Proes, which began in August 1996); and the entry of foreign banks after Legislative Intent 311 of August 1995. In addition to this, the principal arguments in favor and against the presence of foreign banks made by executives of important national and foreign banks that operate in Brazil are commented on.

3.1. Number of Financial Institutions

By the end of 1998, there were 2,053 financial institutions in the country under the supervision of the Central Bank. Table 1 illustrates the effects of economic stabilization and the restructuring programs on the number of financial institutions. While the number of banks increased from 166 in December 1988 to 273 in June 1994, by the end of 1998 this number had fallen to 233.⁶ In the last years, there has been a quite significant drop in the number of national private-sector and state public-sector banks, and banks with foreign stock participation.⁷ On the other hand, the number of banks under foreign control almost doubled. In the case of non-banking institutions, the number of distributors fell substantially, from 376 in June 1994, to 212 in December 1998. However, by virtue of the growth in the number of credit cooperatives, the total number of financial institutions in the country increased from 1,987 to 2,053 over the same period. Concerning the number of bank agencies, they decreased from 17,577 in June 1994 to 16,121 in August 1998.

⁶ The conversion of specialized financial institutions in multiple banks, authorized by Resolution 1,524 of September 1988, occurred very rapidly. Two years after the passing of the law, the number of specialized banks had already fallen to less than half the number in 1988. This process continued over subsequent years. Table 1 shows that the number of commercial banks has fallen from 97 in December 1988 to only 29 in December 1998. The number of multiple banks, on the other hand, grew from only 4 to 174 over the same period.

⁷ In accordance with Circular Letter 2,345 of January 1993, the Central Bank classifies as national private-sector financial institutions with foreign stock participation those which have, either directly or indirectly, between 10% and 50% of their voting capital stock controlled by financial institutions with headquarters located abroad. Those institutions with more than a majority of their voting capital stock controlled by financial institutions whose headquarters are located abroad are considered to be foreign banks. A branch of a foreign bank is that which pertains to a financial institution that is incorporated and has its headquarters located, but which has a subsidiary or branch in Brazil.

Based on information until December 1997, Barros et al. (1998) inform that of a total of 271 banks at the beginning of Real Plan in July 1994, 48 had already undergone some adjustment process which resulted in a transfer of stock control (with or without Proer funds), or became incorporated in other institutions. Over that period, the Central Bank put 43 banks under some kind of special regime (Raet, intervention, or liquidation): 1 investment bank, 4 domestic private-sector commercial banks, 3 state public-sector commercial banks, a state development bank, 2 national multiple banks with foreign stock participation, 28 domestic private-sector multiple banks, and 4 state public-sector multiple banks.

In the case of the Proer program, Banco Bozano, Simonsen (1998) report that private-sector banks received an injection of approximately US\$ 21 billion (3.8% of GDP) in the form of National Treasury securities given in exchange for problematic credits. Of this amount, US\$ 6.8 billion was provided to clean up Banco Econômico, US\$ 6.1 billion for Nacional, US\$ 5.9 billion for Bamerindus, US\$ 1.3 billion for Banorte, and US\$ 500 million for Banco Mercantil de Pernambuco.

Table 1			
Number of Financial Institutions			
Types of Institutions	Dec/88	Jun/94	Dec/98
Federal Public-Sector Banks	6	6	6
Multiple	0	2	2
Commercial	4	2	2
Development	1	1	1
Savings Institutions	1	1	1
State Public-Sector Banks	37	34	24
Multiple	0	24	16
Commercial	23	2	2
Development	10	7	6
Savings Institutions	4	1	0
National Private-Sector Banks	44	147	106
Multiple	3	138	101
Commercial	41	9	5
Branches of Foreign Banks (Commercial)	18	19	16
Banks under Foreign Control	7	19	36
Multiple	0	19	34
Commercial	7	0	2
Banks with Foreign Stock Participation	5	31	23
Multiple	1	29	21
Commercial	4	2	2
Investment Banks	49	17	22
Total of the National Banking System	166	273	233
Credit, Financing and Investment Companies	102	42	46
Commercial Leasing Corporations	54	72	83

Foreign Exchange and Securities Brokers	259	288	233
Foreign Exchange and Securities Distributors	419	376	212
Real Estate Credit Societies and Savings and Loans Associations	55	24	20
Credit Cooperatives	598	912	1,222
Mortgage Companies	0	0	4
Total of the National Financial System	1,653	1,987	2,053
Source: Brazilian Central Bank.			

3.2. Restructuring the State and Federal Public-Sector Financial System

The restructuring of the state financial system has been accomplished mostly through the Proes system, an unparalleled program in terms of the number of states which adhered to it. As shown in Table 2, on the date that Proes was established in August 1996, the state public financial system was composed of 35 institutions, 23 of them being commercial and/or multiple banks. Except for the states of Mato Grosso do Sul and Tocantins, which do not have their own financial institutions, only three states have not yet participated in the program – Paraíba, Piauí and the Federal District. Only six institutions chose the option of being restructured – the banks of Pará, Sergipe, Espírito Santo, Santa Catarina (Besc), Rio Grande do Sul and São Paulo (Nossa Caixa-Nosso Banco). So, after the conclusion of all these processes, only nine state financial institutions are expected to remain.

Institutions	Position on		Estimate after Proes
	Aug/96	Jul/98	
Commercial/Multiple Banks	23	19	9
Savings Institutions	1	1	0
Development Banks	4	4	0
Commercial/Multiple Banks under Raet	3	1	0
Commercial/Multiple Banks in Out-of-Court Liquidation	1	5	0
Savings Institutions in Out-of-Court Liquidation	2	1	0
Development Banks in Out-of-Court Liquidation	1	0	0
Total	35	31	9
Source: SPE Macroeconomic Bulletin (May 1998), and the Brazilian Central Bank.			

Among the 26 institutions that opted to no longer be state banks, ten chose to be privatized – those of Ceará, Bahia, Goiás, Maranhão, Minas Gerais (Credireal and Bemge), Paraná, Pernambuco, Rio de Janeiro, and São Paulo (Banespa) – while five chose to close operations (out-of-court liquidation) – Rio Grande do Norte, Alagoas, Amapá, Mato Grosso

and Minas Gerais (Minas Caixa).⁸ For another 11 institutions it was decided that they would be converted into development agencies – those from Amazonas, Rio Grande do Sul, Santa Catarina (Badesc), Bahia (Desenbanco), Minas Gerais (BDMG), Pernambuco, Roraima, Amapá, Rondônia, Acre and Alagoas. By the end 1998, four privatizations had already been accomplished. Earlier, in June 1997, Rio de Janeiro state's bank (Banerj) was split into two parts - one was acquired by Banco Itaú and the other suffered out-of-court liquidation. In August of the same year, Credireal was bought by BCN, which ended up being sold to Bradesco in October 1997. In 1998, two other state banks were sold: Itaú bought Bemge in September and in November, Bandepe was acquired by Dutch ABN Amro.

Banco Bozano, Simonsen (1998) reveal that approximately US\$ 48 billion (6% of GDP) in federal securities was issued to clean up state banks, about three times the amount spent on Proer. Of this total, US\$ 26 billion went to restructuring the state of São Paulo's debt with Banespa, the former state bank that was federalized in December 1997, and should be privatized in 1999. Of the remainder, US\$ 8 billion went to Nossa Caixa, US\$ 4 billion to Banestado, US\$ 1.5 billion for Bemge, US\$ 3 billion to Banerj and US\$ 3 billion for Banrisul.

With respect to the restructuring of the federal financial system, the restructuring process at Banco do Brasil began with the recognition of damages resulting from the accumulation of unrecoverable credits over several years. Banco do Brasil's credit portfolio was reorganized, and the National Treasury's share in the bank's capital was increased through a R\$ 8 billion capitalization in 1996. It is worth observing that the Treasury can sell its participation in the bank to the private-sector in the future.

In the case of Caixa Econômica Federal (CEF), Barros and Almeida Jr. (1997) reveal that the adjustment process there involves mainly a change in the juridical framework regulating the rules of financing and the execution of guarantees in real estate contracts. Part of the problems of this institution are related to the failure of the National Housing System and its credits with the Salary Variation Compensation Fund (FCVS). In this way, the adjustment process has been occurring simultaneously with the formation of the recently-created Real Estate Financing System (SFI).

3.3. The Entry of Foreign Banks

The Dutch bank Raibobank Netherlands, which already had a representative office in Brazil, was the first foreign institution to enter at the country after the publication of Legislative Intent 311. The approval for Raibobank Netherlands to operate as a bank was granted in August 1995. Also in 1995, Uruguay's Banco Comercial S.A. was given permission to operate in Brazil. After that, five institutions entered the country in 1996 and another 13 in 1997, with this trend continuing in 1998. Among the major banks that entered the country, the Hongkong and Shanghai Banking Corporation (HSBC) stands out in particular. In March 1997 HSBC acquired control of Paraná state's Bamerindus using funds from Proer. It was the largest foreign bank in the Brazilian financial system until November

⁸ The banks of Minas Gerais (Minas Caixa) and Rio Grande do Norte (Bandern), in addition to Goiás' Caixego, were already in the process of out-of-court liquidation when the Proes program was launched. In the case of Rio Grande do Norte, it was decided that this state's bank become a development agency.

1998, both in assets and the extension of its banking network.⁹ In this case, for the first time in the history of the country, the failure of a large domestic financial institution was resolved by selling it to a foreign interest. Freitas (1998) points out that, even on a world level, a situation like that has never been reported, even with the growing international wave of mergers and acquisitions. In January 1998, the Portuguese Caixa Geral de Depósitos bought 79.3% of the voting capital of Banco Bandeirantes. In August of the same year, Spain's Bilbao Vizcaya acquired 55.5% of the voting capital of Excel-Econômico. And in October 1998, Bilbao Vizcaya bought 100% of the institution's voting stock.

Table 3 shows the significant increase in the presence of foreign banks in the country, from 37 to 52 between June 1995 (before Legislative Intent 311), and December 1998.¹⁰ While there has been a slight reduction in the number of branches of foreign banks, there was also an increase from 20 to 36 in the number of national banks under foreign control. Thus, the share of foreign banks in the total number of multiple and commercial banks jumped from 15.4% to 25.6% over the period.

Table 3		
Evolution of the Number of Foreign Banks in Brazil		
Type of Institution	Jun/95	Dec/98
Branches of Foreign Banks	17	16
Private-Sector Banks under Foreign Control	20	36
Total Number of For Banks (A)	37	52
Total Number of Multiple and Commercial Banks (B)	240	203
Foreign Share (A/B) (%)	15.4	25.6
Source for gross data: Sisbacen.		

Besides the entry of new foreign institutions into the Brazilian financial system, there has also been an increase in the activities of those foreign banks already present in the country. In particular, the acquisitions of Banco Geral do Comércio (August 1997) and Banco Noroeste (October 1997) by the Spanish banking group Santander. Also during the month of September 1997, stock control for Banco Boavista was transferred to Banco InterAtlântico, controlled by the Portuguese Espírito Santo group, Brazil's Monteiro Aranha and the French Crédit Agricole banking conglomerate. In March 1998, Sudameris acquired control of Banco América do Sul.

Recently, in November 1998, the National Monetary Council finally approved the sale of 100% of the voting stock of Banco Real to the ABN Amro Bank, which had already acquired 40% of its stock in July 1998. With that acquisition, the institution became the largest foreign bank in Brazil, both in terms of assets and the number of bank agencies, taking the former place of HSBC Bamerindus. In the same month, the Dutch banking group also bought Bandepe (the state bank of Pernambuco). Besides being the largest bank in

⁹ Before the acquisition, HSBC was a minority shareholder in Bamerindus.

¹⁰ In this study, a foreign bank is that whose majority capital stock pertains, directly or indirectly, to a financial institution headquartered abroad (private-sector banks under foreign control) or a bank which is incorporated and headquartered abroad which has a branch or dependency in Brazil (foreign bank branches).

the Netherlands, with total assets on the order of US\$ 532 billion at the end of the first half of 1998, ABN is also the largest foreign bank in the United States. It is worth remembering that ABN Amro has been present in Brazil since 1917, when it began its operations under the name of Banco Holandês da América do Sul. In 1964, after merging with Banco Aymoré, it became one of the major financial institutions in the country, the market leader in automobile financing. At the end of the first half of 1998, ABN occupied 24th place in the ranking of commercial and multiple banks in Brazil in terms of assets.

In the case of HSBC Bamerindus and Caixa Geral de Depósitos, which respectively acquired the banks Bamerindus and Bandeirantes, since these banks were in serious financial difficulties, the Central Bank (BC) dispensed with its customary toll. On the other hand, ABN Amro agreed to pay R\$ 120 million to the BC for permission to increase its share in Banco Real from 40% to 100% of the bank's voting capital, the largest fee collected until the present moment. In July 1998, the Dutch bank had already paid R\$ 80 million for the acquisition of 40% of the institution's voting capital.

Finally, there has also been an increase in foreign presence due to the installation or acquisition of non-banking institutions. For example, Deutsche Bank received authorization to open a stock brokerage firm; Citibank and BankBoston decided to establish mortgage companies; and Lloyds Bank acquired the Losango financing company.

On the other hand, some important international banks have been having difficulties in establishing operations in Brazil. France's Crédit Lyonnais, for example, sold control of Banco Francês e Brasileiro (BFB) to Itaú in 1996. Furthermore, several foreign banks have opted to remain in the wholesale area instead of opening retail operations. Chase Manhattan Bank left the retail sector in 1992 to concentrate on investment banking operations. Deutsche Bank has chosen to specialize in the areas of fund administration, corporate finance and stock custody.

3.4. Arguments in Favor and Against the Entry of Foreign Banks into the National Financial System

In interviews conducted by Freitas (1998), most of the executives of important national and foreign banks operating in Brazil considered the expansion of foreign presence in the country as a positive factor, both in terms of improving the quality of services and bringing new technologies, as well as in reducing spreads and increasing operational efficiency.¹¹ Some of those interviewed, however, emphasized that the reduction of spreads is mostly due to the decrease in the risk of banking activities, which depends more on a drop in basic interest rates and default rates than on an increase in competitive pressure associated with the entry of foreign banks. On the other hand, it was the consensus that foreign banks in the country have more efficient and sophisticated technologies and processes than Brazilian banks. The lengthening of the duration for credit operations due to the repassing of foreign funds was not considered as probable since generally most foreign resources are used by

¹¹ The interviews were conducted with executives from the following banks: ABN Amro, Banco CCF Brasil, Banco Garantia, Banco InterAmerica Express, Banco Itaú, Banco Pactual, Banco Patrimônio, BankBoston, BBA Creditanstalt S.A., Bozano, Simonsen, Citibank, Deutsche Bank, Excel-Econômico, HSBC Bamerindus, ING-Barings, Merrill Lynch, Morgan Stanley, Nations Bank do Brasil, Schroder Investment Management Brasil S.A., Unibanco, and Lloyds Bank.

banks in treasury arbitrage operations. Such lengthening will depend on the consolidation of economic stability coupled with a greater reduction in domestic interest rates.

It is also worth mentioning that foreign banks, to take the Argentinean banking system crisis in 1995 as an example, have a greater capacity to absorb macroeconomic shocks. Ramos (1998) observes that the national retail banks of Argentina took about one and a half year to adjust to the Mexican exchange rate crisis, reducing their exposure to risk by virtue of the shortage of capital provoked by the lower tolerance of depositors to a risk of default on the part of the banks.¹² On the other hand, the foreign banks suffered a smaller shock and adjusted to the crisis immediately.

Nevertheless, Freitas' study emphasizes that after the purchase of Bamerindus by the giant HSBC, and Santander's practicing to an aggressive acquisitions strategy, critiques by some Brazilian bankers to the policy of opening the national financial system to foreign banks have begun to intensify. Among the main points raised by bankers are:

- "The *real* would be more vulnerable, because foreign banks could profit by betting against the national currency, using their deposits in *reais* to buy dollars from the Central Bank."
- "The Central Bank could lose credit. A Brazilian bank is required to give unlimited credit to the Central Bank, while for a foreign bank, is a credit risk just like any other."
- "The power of the Central Bank over domestic banks is greater because their funding is local, while its power over international banks would be much smaller."
- "Decisions on the allocation of savings would be made abroad ."
- "The controls on foreign capital would be less effective. While Brazilian banks with offshore branches have a limited capacity to raise funds abroad, foreign banks can mobilize enormous amounts of business [which would be] beyond the reach of the Brazilian monetary authority, making its control mechanisms ineffective."
- "In practice, no developed country allows its largest banks to be bought by foreigners."

In relation to the first argument, Freitas (1998) affirms that it is not the presence of foreign banks which presents a menace to the Real. In fact, the banks, independently of nationality, tend to take advantage of all and any opportunities to gain money, even if that compromises the conducting of monetary and exchange rate policy. With respect to the possibility of foreign banks refusing to purchase public securities auctioned by the Central Bank, he observes that such behavior also does not depend on the nationality of the institution. In the case of the allocation of savings being decided abroad, it is worth mentioning that foreign banks as well as domestic private-sector banks have concentrated their activities in short-term credit operations. Such institutions have not been conducting long term operations except to repass government funds, particularly those from the BNDES.

With respect to the possibility of foreign banks obstruct the control of capital flows, Freitas emphasizes that the country's dependence on foreign capital is what hinders its

¹² Total deposits in the Argentinean banking system fell 18.4% between December 20, 1994 and May 1995.

ability to control the currency, and forces the Central Bank to maintain high domestic interest rates. Finally, there are no restrictions in the United States which impede the entry of foreign banks into that market. However, in Europe there is a building concern over the progress of American banks in the local financial system there. It is also worth mentioning the resistance of the French government to the acquisition of the state-controlled bank *Crédit Lyonnais* by *Barclays Bank of England*.

4. Indicators from Financial Institutions' Balance Sheets

In this section analyzes the balance sheet indicators of multiple, commercial, federal, state, private-sector, and national banks, including those under foreign control, those with foreign stock participation and the branches of foreign banks. It is fitting to observe, however, that the balance sheet data on these banks should be analyzed with a certain attention to the constant changes of control in many of the institutions. Another problem is due to the fact that, until March 10, 1999, three state institutions had still not disclosed their balance sheets relative to the first half of 1998 by virtue of the fact that Proes extended the date for them to present their results.¹³ Furthermore, of the 233 banks existing in December 1998, 11 had not yet presented their balance sheets regarding the second half of last year.¹⁴ Nevertheless, the data obtained does embrace the 20 largest banking institutions in the country, according to the June 1998 ranking (see Section 5.1).

The consolidated information on banks was extracted from the Central Bank Information System (Sisbacen). For the purpose of complementing the study undertaken, changes in activity of the major banks were also analyzed, based on data extracted from the results of the banks and including information provided by Atlantic Rating.

Furthermore, it merits observing that the Central Bank classifies *Banco do Brasil* as a commercial (and not multiple) bank. Data from its subsidiary companies – *BB Investimentos*, *BB Financeira*, *BB Leasing*, *BB Corretora* and *BB DTVM* – are therefore computed separately in the consolidated data for investment banks, financiers, commercial leasing corporations, brokers and dealers, respectively.¹⁵ At the end of 1998, for example, *Banco do Brasil* had assets valued at US\$ 97 billion. If the assets of its subsidiaries are included as well, this value increases to US\$ 107 billion.

4.1. The Evolution of Banks' Credit, Assets, Deposits and Equity

Although the number of banks fell from 273 in June 1994 to 233 in December 1998

¹³ The three state banks that did not present results for the first half of 1998 were *Banco do Estado de Goiás S.A.*, *Banco do Estado do Ceará S.A.* and *Banco do Estado do Paraná S.A.*.

¹⁴ Among the 11 banks which did not publish their balance sheets for the second half of 1998, 9 were state public-sector banks (*Banco de Brasília S.A.*, *Banco do Estado de Goiás S.A.*, *Banco do Estado do Pará S.A.*, *Banco do Estado do Maranhão S.A.*, *Banco do Estado do Piauí S.A.*, *Banco do Estado do Ceará S.A.*, *Banco do Estado de Sergipe S.A.*, *Banco do Estado da Bahia S.A.* and *Banco do Estado do Paraná S.A.*), one was a national private-sector bank (*Banco Cidade S.A.*) and one a state development bank (*Banco de Desenvolvimento de Minas Gerais S.A.*).

¹⁵ The same is the case with *Banco Real*, which is classified by the Central Bank as a commercial bank. In order to avoid confusion, in this section it will be specified whenever reference is made to the financial conglomerate or to just the bank's commercial portfolio, given the difficulty in obtaining information strictly with respect to the latter. In the following section, such a problem is avoided by only analyzing the financial conglomerate.

[see Section 3.1], there was a significant growth in their size over the period. The total assets and net equity of the national banking system grew 71% and 61%, in dollars, respectively. There was also an important increase in the volume of credits conceded, mainly during the second half of 1994.¹⁶ After then, growth was much slower, due, basically, to an increase in default. Table 4 contains some indicators which allow an analysis of banks' activities, as well as a comparison of the different consolidated sizes.

With respect to federal banks, it is worth noting that the federalization of Banespa in December 1997 helps explain the recent decrease in the total value of credits conceded by the banking system, in addition to the privatization of Banco Meridional, sold to Banco Bozano, Simonsen.¹⁷ Under the accord signed for the restructuring of Banespa, the federal government agreed to receive Banespa's credits with the state of São Paulo, on December 23, with the bank receiving federal securities in compensation. With that transfer alone, the volume of the bank's credit operations dropped from US\$ 27.3 billion in June 1997 to just US\$ 4.3 billion in December.

The data in the balance sheets of state banks are more difficult to analyze by virtue of the fact that some of them have not presented their results for the first and the second halves of 1998. Nevertheless, at the end of 1997 the share of state banks in the total assets held by multiple and commercial banks in the national banking system, for example, had already fallen to less than half the amount of June 1996, before the creation of the Proes program. The change in control of Banespa was the main factor responsible for such a decline, especially in terms of the volume of credits conceded. In fact, the amount of credits conceded by state banks dropped from US\$ 44 billion in June 1997 to US\$ 12 billion in December the same year. The federalization of Banespa accounts for US\$ 27 billion of the total US\$ 32 billion fall. Furthermore, the privatizations of Banerj and Credireal in June and October 1997, respectively, and the sale of Bemge and Bandepe in the second half 1998, also contributed to reducing the presence of state banks in the national financial system.

In the case of domestic private-sector banks, there was a significant fall – from 53.6% to just 40.8% – in the share of these institutions in the total deposits of multiple and commercial banks during the period immediately after the stabilization of the economy (between the first half of 1994 and the second half of 1995), when Banco Econômico was liquidated. It is worth observing that, to the opposite effect, the federal multiple and commercial banks had the largest growth in deposits over that period. Apparently, this was the consequence of a search for greater protection in official banks, especially in Banco do Brasil.

¹⁶ In this analysis, the data on credit is net of unearned discount.

¹⁷ After these auctions, only two federal multiple banks remain (Banespa and BNB – Banco do Nordeste do Brasil). In addition to these, the federal public banking system consists of two commercial banks (Banco do Brasil and Banco da Amazônia – Basa), a development bank (BNDES), and a savings and loan institution (Caixa Econômica Federal).

Table 4										
Share of Federal, State, and National and Foreign Private-Sector Banks										
in the Total Number of Multiple and Commercial Banks										
	Jun/94	Dec/94	Jun/95	Dec/95	Jun/96	Dec/96	Jun/97	Dec/97	Jun/98	Dec/98
Federal Banks										(ln %)
No. of Banks	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0
Credits	27.9	29.0	28.2	24.7	22.6	19.4	18.2	26.6	29.8	31.7
Assets	25.4	23.8	20.5	18.9	15.6	16.7	17.7	29.0	25.6	27.4
Deposits	14.3	21.0	22.6	24.8	22.8	20.9	21.7	29.0	29.9	28.4
Net Equity	26.6	21.2	15.8	21.6	40.4	15.4	15.4	21.6	23.1	19.3
State Banks										(ln %)
No. of Banks	10.6	10.7	10.7	10.8	11.0	11.5	11.8	12.1	10.7	8.9
Credits	18.9	19.3	20.4	22.8	24.5	26.2	27.1	8.7	5.3	4.0
Assets	12.4	19.0	21.4	23.9	22.2	24.5	22.9	10.3	7.3	5.9
Deposits	17.3	18.3	20.2	21.8	24.8	25.8	25.0	13.3	10.4	7.7
Net Equity	13.4	8.9	9.6	11.8	7.6	11.9	11.7	4.6	3.0	3.1
Private-Sector National Banks										(ln %)
No. of Banks	59.8	60.1	59.7	59.2	59.3	56.8	54.8	53.5	53.4	52.2
Credits	39.5	41.5	40.6	41.0	38.9	38.0	35.5	37.8	37.5	31.6
Assets	43.8	43.1	44.6	41.0	44.0	41.4	38.3	35.5	38.4	35.7
Deposits	53.6	48.9	46.1	40.8	42.1	40.4	36.3	36.9	38.4	39.3
Net Equity	45.9	52.9	56.0	42.9	32.1	53.8	50.8	45.7	45.9	46.5
Foreign – Branch										(ln %)

Banks										
No. of Banks	7.7	7.0	7.0	7.1	6.8	7.0	7.2	7.4	7.8	7.9
Credits	3.2	1.9	1.9	2.1	2.3	2.1	2.1	2.6	2.8	2.7
Assets	5.7	3.0	2.8	3.3	4.0	2.7	3.0	3.0	3.4	2.6
Deposits	4.0	1.9	1.8	2.1	1.9	1.5	1.2	1.3	1.1	1.1
Net Equity	3.2	3.0	3.2	4.2	3.5	3.4	3.1	2.8	3.0	2.3
Nation Private-Sector Banks under Foreign Control										(In %)
No. of Banks	7.7	8.2	8.2	8.3	8.9	10.6	11.8	13.5	14.6	17.7
Credits	6.0	4.9	5.3	6.1	7.4	9.5	12.4	14.2	13.8	18.0
Assets	6.4	5.4	5.1	6.8	7.9	9.1	12.2	12.6	14.6	18.4
Deposits	6.4	5.5	4.4	5.3	4.5	7.0	11.2	12.0	12.6	15.7
Net Equity	5.9	7.3	7.7	9.5	8.1	8.2	11.5	12.9	13.6	19.5
Nation Private-Sector Banks with Foreign Stock Participation										(In %)
No. of Banks	12.6	12.3	12.8	12.9	12.3	12.3	12.7	11.6	11.7	11.3
Credits	4.5	3.5	3.5	3.3	4.2	4.8	4.7	10.1	10.9	12.0
Assets	6.2	5.6	5.6	6.2	6.3	5.6	5.9	9.6	10.6	9.9
Deposits	4.4	4.4	4.9	5.3	3.9	4.4	4.7	7.5	7.6	7.7
Net Equity	5.0	6.7	7.7	10.1	8.4	7.3	7.4	12.4	11.3	9.3
Total of Multiple and Commercial Banks										
No. of Banks	246	243	243	240	236	227	221	215	206	203
Credits	88,420	143,582	159,292	163,364	164,014	157,941	163,022	133,962	126,501	121,465

Assets	277,871	353,254	411,197	419,072	480,190	456,912	521,141	493,082	505,644	450,864
Deposits	104,471	149,893	166,168	177,242	166,331	169,287	185,406	188,947	192,340	184,006
Net Equity	26,349	36,143	35,888	27,931	34,826	38,970	39,796	41,262	40,750	48,394
Total of the National Banking System										
No. of Banks	273	269	268	266	262	259	252	246	236	233
Credits	124,656	194,164	210,156	218,457	225,255	220,367	230,466	206,611	200,443	195,880
Assets	361,998	477,367	534,653	558,452	630,817	607,682	685,802	661,153	665,150	619,466
Deposits	137,133	199,084	218,748	231,112	220,194	225,428	242,107	247,360	245,900	236,415
Net Equity	38,264	54,078	54,810	48,604	55,612	54,994	55,652	57,038	55,507	61,710
* Values in US\$ millions.										
Source for gross data: Sisbacen.										

Recent data shows that domestic private-sector banks continue to respond to a significant amount of the active and passive operations in the national financial system, in spite of the entry of foreign institutions. In fact, comparing 1998 with the previous year, domestic private-sector banks increased their share in the total deposits of the country's multiple and commercial banks. Such growth is mainly the result of the active participation of these institutions in the recent privatizations of former state banks. As can be seen in Section 3.2, of the four state banks that were sold, only Bandepe, with a network of agencies concentrated outside the main financial centers of Brazil, was acquired by a foreign bank, Dutch ABN Amro. The others were bought by domestic private-sector banks: Banerj and Bemge by Itaú and Credireal by BCN (which was later bought by Bradesco).¹⁸

The total number of foreign bank branches is quite small in comparison to the other institutions in the financial system. The main explanation is the fact that these branches can not operate in Brazil as regular commercial banks, because the multiple banking organization is particular to financial institutions incorporated under Brazilian law. Thus, in March 1998, while the branches of the main foreign banks in the country – BankBoston N.A. and Citibank N.A. – possessed 12 and 21 agencies, respectively, BankBoston S.A. and Citibank S.A., incorporated as multiple banks under foreign control, had 36 and 47 agencies, respectively.

Domestic private-sector banks under foreign control were the institutions which grew the most when comparing the latest period with that prior to the beginning of Real Plan, according to all of the indicators used to compare the size of the institutions. While in June 1994 these banks responded to, for example, 6.4% of the total assets held by multiple and commercial banks in the national banking system, four and a half years afterwards that share had risen to 18.4%. In the case of banks under foreign control, it is fitting to note the acquisition of Banco Bamerindus by the Hongkong and Shanghai Banking Corp. (HSBC), in March 1997, and the transfer of control of Banco Excel-Econômico and Banco Real to Spain's Bilbao Vizcaya and Dutch ABN Amro in August and November 1998, respectively.

Adding the branches of foreign banks to the banks under foreign control, we arrive at a foreign participation of 21.1% of the total assets for multiple and commercial banks at the end 1998, in comparison to 12.1% in June 1994. Although smaller in scale, banks with foreign stock participation have also been growing significantly in recent years. Such institutions increased their share from 6.2% to 9.9% over the same period.

In relation to the other financial institutions that make up the national banking system (development banks, savings and loans institutions and investment banks), the expressive increase in the concession of credits by the BNDES and Caixa Econômica Federal can be

¹⁸ Besides this, few foreign institutions were pre-qualified for the privatization auctions of state banks and only in the case of Bandepe was there a tender offer from a foreign bank. In the auction of Banerj in June 1997, only the domestic banks BCN, Bradesco, Itaú and Pactual (an investment bank) were pre-qualified, but only Itaú presented a bid. In the case of Credireal, BankBoston was the only foreign bank to pre-qualify – the others being BCN, Bicanco, Noroeste (before its sale to Santander) and Bozano, Simonsen. In that auction, only BCN presented a bid. In the privatization of Bemge, Brazilian banks Meridional, Bradesco and Itaú together with foreign banks ABN Amro, Bilbao Vizcaya and Santander all pre-qualified. However, none of the foreign institutions presented an offer. In the sale of Bandepe, Bradesco, Meridional and ABN Amro pre-qualified, but only ABN Amro made a bid.

cited, whose lending volume jumped, respectively, from US\$ 6.7 billion and US\$ 26.5 billion in June 1994 to US\$ 23.8 billion and US\$ 47.6 billion in December 1998. It is worth noting the size of Caixa Econômica Federal in relation to the other banks in the system. At the end 1998, Caixa Econômica Federal possessed assets on the order of US\$ 94.8 billion, second only to Banco do Brasil, whose conglomerated¹⁹ assets totaled US\$ 107 billion.

4.2. Leverage, Asset Quality and Profitability Indicators

Table 5 presents some indicators that can be used to measure the level of leverage and quality of assets in the national banking system. The degree of leverage was measured by the ratio of the volume of credits conceded to total net equity. During most of the period under analysis, this indicator was higher for federal and state multiple and commercial banks, compared to the other institutions. On the other hand, the table shows that after the beginning of Proes in August 1996, there was an accentuated fall in the leverage of state multiple and commercial banks. In the case of domestic private-sector banks, the degree of leverage also fell during the second half 1996, after a significant rise in the first two years after the beginning of the Real Plan. Over the entire period analyzed, banks' leverage reached their lowest level in the second half of 1998.

In order to measure the quality of assets, default rates were analyzed, characterized by the relationship between credits in arrears and in liquidation and the total amount of credits conceded, and then comparing the volume of bad credit provisions with the volume of credits in arrears and in liquidation.²⁰ The data show a strong increase in default rates in the second half of 1995, after the interest rate hike and the fall in economic activity level which followed to the Mexican crisis. This increase was reported for all bank types studied, but it was felt principally by domestic private-sector banks. Default rates increased again at the end of 1997, this time by virtue of the Asian crisis. This also resulted in an increase in domestic interest rates and a retraction in the rhythm of economic growth. In this case, however, Brazilian domestic private-sector banks were far less adversely affected than they were in 1995. While the default rate went from 3.9% in June 1995 to 16.6% in June 1996, recently the rise in default went from 3.6% in June 1997 to just 5.1% in Jun 1998, dropping over the next semester to 4.2%.

This most recent increase in default affected mainly the state and federal multiple and commercial banks. In the case of the state banks, this was due more to a decrease in the amount of credits conceded than to an increase in the number of credits in arrears and in liquidation. With respect to the federal institutions, it is worth noting that over the entire period analyzed they were the banks which had the highest default rates, having an important weight in the index that of Banco do Brasil which, at the end of 1998, was

¹⁹ Including subsidiaries.

²⁰ The Central Bank considers delinquent credits those whose operations have expired for more than 60 days. Non-performing credits are those whose operations have expired for more than 180 days, if their guarantees are considered insufficient, or more than 360 days if the guarantees are adequate. In this study, these values are net of "unearned discount", or, that is, fees which are charged on delinquent and non-performing credits. The implicit rates in such fees are customarily quite high, mostly since they are used as a negotiating instrument for financial institutions with borrowers. Pinheiro and Cabral (1998) affirm that it is not uncommon for banks to accept payment of only 40% of the amount owed (which could, even so, be an amount greater than the original value of the loan). Thus, the inclusion of the "unearned discount" in the value of credits tends to overestimate the level of delinquency.

responsible for almost 80% of all the credits conceded by federal multiple and commercial banks. This high level of default had its principal origin in loans to the agricultural sector, which, according to data for June 1998, was responsible for US\$ 12 billion of the total US\$ 47 billion in credits that the bank had conceded.

Table 5										
Leverage and Asset Quality Indicators for Multiple and Commercial Banks										
(In %)										
	Jun/94	Dec/94	Jun/95	Dec/95	Jun/96	Dec/96	Jun/97	Dec/97	Jun/98	Dec/98
Leverage (Credits/Net Equity)										
Federal Public-Sector	3.5	5.4	7.9	6.7	2.6	5.1	4.8	4.0	4.0	4.1
State Public-Sector	4.7	8.6	9.4	11.3	15.1	8.9	9.5	6.2	5.5	3.3
National Private-Sector	2.9	3.1	3.2	5.6	5.7	2.9	2.9	2.7	2.5	1.7
Foreign – Branches	3.4	2.5	2.7	2.9	3.1	2.6	2.7	2.9	2.8	2.9
National Private-Sector under Foreign Control	3.4	2.6	3.0	3.7	4.3	4.7	4.4	3.6	3.1	2.3
National Private-Sector with Foreign Participation	3.0	2.1	2.0	1.9	2.4	2.7	2.6	2.7	3.0	3.2
Total for Multiple and Commercial Banks	3.4	4.0	4.4	5.8	4.7	4.1	4.1	3.2	3.1	2.5
National Banking System	3.3	3.6	3.8	4.5	4.1	4.0	4.1	3.6	3.6	3.2
Quality of Assets (Credits in Arrears and in Liquidation/Total Credits)										
Federal Public-Sector	12.5	11.0	15.6	14.3	21.5	18.3	18.5	21.5	24.2	33.2
State Public-Sector	1.4	2.6	4.0	5.2	5.0	5.1	4.8	9.6	10.8	17.0
National Private-Sector	1.1	2.1	3.9	15.6	16.6	4.8	3.6	4.5	5.1	4.2
Foreign – Branches	2.4	5.6	6.6	7.5	8.8	9.6	8.9	8.0	6.9	7.1
National Private-Sector under Foreign Control	1.2	2.3	4.7	5.0	3.5	3.4	4.6	4.5	5.7	5.8
National Private-Sector with Foreign Participation	1.4	2.6	3.3	5.2	5.9	4.7	4.1	3.1	4.5	6.5
Total for Multiple and	4.4	4.8	7.3	11.7	13.3	7.5	6.9	9.4	11.2	14.6

Commercial Banks										
National Banking System	3.8	4.3	6.6	10.3	11.5	7.1	6.4	7.6	8.7	10.3
Quality of Assets (Provisions for Credits in Arrears and in Liquidation/Credits in Arrears and in Liquidation/Delinquent and Non-Performing Credits)										(In %)
Federal Public-Sector	10.4	18.5	37.9	77.7	119.5	117.8	150.0	148.0	132.4	90.3
State Public-Sector	276.4	142.0	113.3	104.9	113.6	124.0	125.3	119.6	197.9	192.0
National Private-Sector	150.2	141.0	123.1	104.0	108.4	110.2	119.3	116.5	144.9	184.2
Foreign – Branches	97.7	78.7	81.5	85.0	91.9	96.7	97.8	100.3	107.5	106.3
National Private-Sector under Foreign Control	141.4	126.1	101.9	109.5	109.9	104.1	89.6	95.9	89.6	108.2
National Private-Sector with Foreign Participation	114.2	91.9	107.0	94.6	111.0	113.9	118.5	240.3	156.6	121.3
Total for Multiple and Commercial Banks	45.3	57.8	69.0	95.9	112.8	115.7	132.4	138.2	135.5	106.8
National Banking System	50.9	61.2	73.1	95.3	109.3	108.6	126.0	137.6	136.1	117.4
Source for gross data: Sisbacen.										

According to Banco Bozano, Simonsen (1998), loans to the agricultural sector are a bad business in Brazil. The only reason why private-sector banks conduct these operations is because the Central Bank requires that at least 25% of all banks' credit portfolios go to that sector. In the case of Banco do Brasil, Central Bank Resolution 2,273 of February 1998 determines that 40% of the bank's savings deposits must be targeted to the agricultural sector. Meanwhile, all other banks are required to destine 70% of their savings deposits to the real estate sector, whose default rate are much lower.²¹ Nevertheless, the government pays the difference between the savings remuneration (6.17% per annum plus the Referential Rate - TR) and the rate on those loans (9.5% per annum), which corresponded to 4.6% a year in the first half of 1998. Furthermore, it's fitting to observe that the non-performing agricultural credits have normally been covered by the Treasury.

Provisions for credits in arrears and in liquidation grew substantially during 1995 and the first half of 1996, at a rate far higher than the increase in delinquency. This adjustment mainly place took at Banco do Brasil, whose allocation of bad debt provisions for its commercial credit portfolio jumped from US\$ 690 million in the second half of 1994 to US\$ 8.9 billion in the first six months of 1996, while credits in arrears and in liquidation leaped from US\$ 4.2 billion to US\$ 7.2 billion over the same period. During the second half of 1998, however, the percentage of bad debt provisions in relation to credits in arrears and in liquidation began to drop again, with an increase in default at Banco do Brasil. Table 5 also shows an increase in this percentage for state banks over the second half of 1996, after the beginning of the Proes program.

Table 6 shows selected profitability indicators for banks. Just as in the case of an increase in default, banks' profitability indexes (net profit/net equity) dropped significantly after the rise in interest rates at the end 1995 and 1998. Over most of the period analyzed, national private-sector banks with foreign stock participation and banks under foreign control were the ones which had the largest returns in relation to net equity. More recently, however, in the second half of 1998, it has been the domestic private-sector banks which were the most profitable. It is also worthwhile bearing in mind the high volatility of the profitability rates, whose swings were greater in the case of the national public- and private-sector banks and smaller with the banks under foreign control.

The net margin index for banks corresponds to the relationship between their results from financial mediation and their total assets. The sharp reduction in this indicator over the second half of 1994 reflects the loss of revenues derived from the overnight floating of funds, which ceased with the end of high inflation and the stabilization of the economy.

Another profitability indicator is represented by the relationship between revenues derived from services and the sum of these revenues with those from financial mediation. Such an indicator shows which banks have been trying to compensate for the loss of gains derived from overnight floats by elevating bank tariffs and collecting charges for services that were free during the period of high inflation.

²¹ Note that Banco do Brasil has the benefit of having 45% free reserves, already discounting the 15% required reserves. Private-sector banks, on the other hand, only have the freedom to administer 15% of the funds they raise through savings deposits.

Finally, Table 6 shows the indicator used internationally as the standard for measuring bank efficiency, calculated by dividing total administrative and personnel expenses by gross financial mediation results plus services revenues. Unfortunately, as Bevilaqua and Loyo (1998) high light, the expenses reported in bank results were not perfectly indexed during the period prior to the adoption of Real Plan, so that such costs are underestimated. Thus the data for the first half of 1994 is not comparable to the data from other periods.

The data presents a significant decline in the efficiency of banks in Brazil over the first few years of the Real Plan. In this respect, it is worth mentioning that during the period of high inflation, banks sought to maximize their gains through floats by establishing a vast net of agencies that allowed for the quick use of customers' funds, with bill payments being handled directly in such locales. With the reduction of float revenues, there was corresponding drop in the level of banks' efficiency. Only beginning in the second half of 1997 did these levels begin to improve significantly, due (mainly) to the restructuring of federal public-sector banks, the entry of foreign banks, the reaction of domestic private-sector banks an increase in the presence of such foreign institutions in the national financial system, and the effects of the Proes program.

During most of the period under analysis, from December 1994 to June 1997, domestic private-sector banks under foreign control were the most efficient. Although the process of transferring stock control to foreign banks led, initially, to a drop in the efficiency of these institutions, these banks have normally overcome the initial adjustment phase and then improved significantly. In 1997, administrative and personnel expenses for HSBC-Bamerindus, for example, were equivalent to 127.1% of the sum of the financial mediation results with services revenues. In 1998, this level had already dropped to 98.3%.

Table 6										
Profitability Indicators for Multiple and Commercial Banks										
										(In %)
	Jun/94	Dec/94	Jun/95	Dec/95	Jun/96	Dec/96	Jun/97	Dec/97	Jun/98	Dec/98
Net Profit/Net Equity										(% p.a.)
Federal Public-Sector	5.7	(1.5)	(72.1)	(45.0)	(80.2)	8.9	8.9	10.6	10.1	11.0
State Public-Sector	17.4	(46.5)	(20.5)	(34.3)	(15.6)	14.7	18.2	(9.1)	(62.0)	(1.7)
National Private-Sector	17.4	15.8	15.3	0.3	(22.9)	12.0	13.2	-4.9	(0.6)	13.4
Foreign – Branches	4.8	0.7	(4.4)	(1.4)	2.6	(8.8)	1.2	(14.5)	17.8	7.8
National Private-Sector under Foreign Control	19.9	22.0	13.7	10.5	22.5	18.2	18.7	4.2	15.4	3.9
National Private-Sector with Foreign Participation	11.3	36.9	22.2	22.0	32.0	24.1	30.6	7.7	15.1	7.3
Total for Multiple and Commercial Banks	13.6	6.9	(6.2)	(12.1)	(43.5)	12.4	14.6	(0.8)	(3.5)	9.0
National Banking System	11.1	8.7	(2.6)	(5.1)	(26.6)	11.5	13.8	0.5	0.2	8.4
Net Margin: [(Financial Mediation Revenues – Financial Mediation Expenses)/Assets]										(% p.a.)
Federal Public-Sector	0.5	4.9	4.6	2.9	3.5	1.4	1.5	7.3	5.9	5.8
State Public-Sector	12.7	9.1	7.8	7.1	6.0	5.7	5.5	4.2	4.7	7.7
National Private-Sector	9.9	10.2	8.4	7.5	5.2	5.4	5.4	3.9	4.9	4.2

Foreign – Branches	17.2	5.9	6.0	6.0	3.1	3.1	1.2	1.6	3.6	2.6
National Private-Sector under Foreign Control	25.9	13.4	9.6	6.3	5.4	5.7	4.2	5.1	4.3	6.0
National Private-Sector with Foreign Participation	25.6	9.1	3.8	4.3	2.5	2.7	2.8	4.3	3.5	4.2
Total for Multiple and Commercial Banks	10.2	8.7	7.2	6.2	4.9	4.6	4.3	5.0	4.9	5.2
National Banking System	7.1	7.3	6.4	5.2	3.9	4.1	3.6	4.2	3.9	4.0
Services Revenues/Financial Mediation Results and Services Revenues										
Federal Public-Sector	42.7	23.8	28.6	46.3	45.2	70.4	63.6	21.9	26.8	28.3
State Public-Sector	4.5	13.4	14.6	16.0	18.6	18.5	17.4	29.9	27.4	18.5
National Private-Sector	6.8	18.6	19.2	25.3	30.0	33.3	30.8	40.5	30.0	36.3
Foreign – Branches	1.5	15.6	12.4	13.1	15.2	22.0	39.5	27.3	16.4	15.7
National Private-Sector under Foreign Control	1.7	10.1	12.6	16.8	16.0	16.2	19.9	26.3	28.9	26.2
National Private-Sector with Foreign Participation	1.1	9.7	16.7	15.6	35.1	34.7	25.6	34.7	34.1	33.0
Total for Multiple and Commercial Banks	5.2	17.2	18.9	24.4	28.4	32.4	30.2	30.2	28.7	29.9
National Banking System	7.2	18.1	19.7	25.4	31.2	32.8	33.2	31.5	31.3	32.2
Efficiency: (Administrative and Personnel Expenses/Financial Mediation Results and Services Revenues)										
Federal Public-Sector	810.1	170.6	161.9	203.7	184.5	234.1	615.6	106.5	88.4	88.9
State Public-Sector	127.6	125.6	95.7	100.0	102.4	92.0	83.2	71.4	113.8	64.0
National Private-Sector	39.8	70.2	66.7	79.5	92.7	95.7	78.8	103.2	81.0	94.1
Foreign – Branches	9.4	84.8	76.5	64.3	73.2	89.6	126.0	106.5	44.1	111.0
National Private-Sector under Foreign Control	9.6	42.1	50.7	61.0	62.3	64.0	74.1	87.8	85.5	83.1

National Private-Sector with Foreign Participation	7.9	47.9	85.7	78.7	88.3	100.6	96.2	96.1	99.7	90.9
Total for Multiple and Commercial Banks	58.8	92.4	87.0	98.5	105.8	108.6	145.8	92.6	88.5	85.9
National Banking System	70.8	93.0	85.2	98.9	109.4	106.1	140.2	95.4	92.5	89.9
Source for gross data: Sisbacen.										

The current tendency in the efficiency index of domestic private-sector banks is more difficult to analyze, due to the high volatility of the indicator. Comparing year to year, nevertheless, we can observe an increase in the efficiency of these institutions over the last two years, with the index dropping from 94.2% in 1996 to 88.9% in 1997 and then 86.7% in 1998.

Bradesco, for example, had an efficiency index of 80.3% in 1998, below the 81.4% it registered in 1997. In recent years, the bank has been developing new products and services which relieve customers from having to go to bank agencies in order to process their transactions, allowing, for example, customers to make purchases and conduct bank operations via the Internet.

In the case of Itaú, the index was 75% in 1998, compared to 81.2% in 1997, with expectation that this measure will improve even more as progress continues in the restructuring of Banerj and Bemge, acquired by the bank in June 1997 and September 1998, respectively. In addition to this, Itaú has been investing strongly in the expansion of its channels of attendance and in the automation of its processes, whereby now 73% of all customers' transactions are completed on their own.

At the opposite extreme, federal public-sector commercial and multiple banks were the least efficient in the period between June 1994 and December 1997.²² Recently, such institutions have been showing improvement in their performance. In the case of Banco do Brasil, administration and personnel expenses reached US\$ 7 billion in 1998 (US\$ 6.1 billion, if just the commercial portfolio is considered), a reduction of 9% in comparison with the same period the year before. It is worth observing that the bank closed the first half of 1998 with a total (including subsidiaries) of 73,006 employees and 14,620 trainees. Since the beginning of 1995, when there was change in the administration of the institution, until the end of June 1998, 46,374 permanent positions and 9,111 temporary jobs were cut. Also during that period, 329 agencies were closed. Meanwhile, the number of service posts – considered more versatile and cheap – leaped from 1,808 to 2,201.

Finally, the data also shows an expressive increase in the efficiency of state commercial and multiple banks after the institution of the Proes program. Until then, these institutions were only better in performance than federal banks. However in the first half of 1998, the efficiency index of state commercial and multiple banks worsened. The phenomenon seems to have been only transitory, since in the following six months the index returned to its tendency to fall again.

5. Analysis of the Major National Banks and International Comparisons

The first part of this section analyzes the 20 largest commercial and multiple banks based on total assets. The second part compares the five largest multiple banks in Brazil with the major banks in the United States and other emerging countries in Latin America and East Asia.

²² In the first half of 1997, Banco do Brasil reported liabilities relative to pension complements for employees who had entered the bank before 4/14/67 on the order of R\$ 8.7 billion. This fact alone contributed to most of the marked drop in the efficiency of federal banks in this period.

5.1. Analysis of the Major National Banks

At the end of the first half of 1998, among the 20 largest commercial and multiple banks in the country according to total assets, six were foreign (BankBoston, Boavista InterAtlântico, Citibank, HSBC Bamerindus, CCF Brasil and Sudameris), one had foreign stock participation (BBA Creditanstalt), ten were national private-sector (Bradesco, Itaú, Unibanco, Real, Safra, Meridional do Brasil, Bozano Simonsen, BCN,²³ Excel-Econômico and Mercantil Finasa), two were federal (Banco do Brasil and Banespa) and one was state (Nossa Caixa). The number of foreign institutions among the major Brazilian banks increased at the end of 1998 with the transfer of control for Banco Real and Banco Excel-Econômico to Dutch ABN Amro and Spanish Bilbao Vizcaya, respectively. The privatization of Banespa in 1999 could also modify this ranking significantly.

Table 7 presents selected indicators of these institutions for June 1998, with the data showing a pattern similar to that presented in the previous section. Banco do Brasil, for example, had leveraged its operations to a much higher level than the other financial institutions analyzed. The current delinquency levels for commercial and multiple federal public-sector banks were much higher than those presented for domestic and foreign private-sector banks. On the other hand, both Banco do Brasil and Banespa had allocated enough provisions to cover their existing delinquent credits. Of the five most efficient banks, three were foreign (BankBoston, CCF Brasil and Citibank), one had foreign participation (BBA Creditanstalt) and one was national private-sector (Safra). On the other extreme, the main public-sector banks analyzed, Banco do Brasil and Banespa, presented efficiency indexes greater than 100% – that is to say, their services revenues combined with financial mediation results were not enough to cover administration and personnel expenses.

It was also included in the table the index of bank capital adaptation, measuring the level of compliance with the Basle Accord. With the exception of Banco do Brasil and Excel-Econômico, all other institutions analyzed complied with the 11% capital limit established by the Central Bank, which financial institutions were required to adapt to by the end of 1998. In the case of Banco do Brasil, this was mainly due to its high level of loans, especially to the agricultural sector. In the second half of 1998, however, the bank privileged the investments in assets upon which relied a reduced factor of risk ponderation. Such attitude resulted in an index of 11.1% at the end of that year. With respect to Banco Excel-Econômico, the bank managed to comply with the measures by the third quarter of 1998, after its transfer of control to Spain's Bilbao Vizcaya, when there was an increase in a capital of R\$ 1 billion. At the end of September, the bank's index had increased to 12.4%.

²³ In October 1997, Bradesco acquired control of BCN. Nevertheless, the two banks have been operating independently, sharing products and services.

Table 7

Selected Indicators for the 20 Largest Commercial and Multiple Banks (June 1998)

	Assets (US\$ millions)	Credits (US\$ millions)	Deposits (US\$ millions)	Net Equity	Credits/ Net Equity	Default/ Credits (%)	Provis./ Default (%)	Capital Adapt. Index (%)	Profit/ Net Equity (%)	Net Margin (%)	Income Servs./ IS+IFM (%)	Efficienc y (%)
Banco do Brasil	111,913	46,957	52,423	5,433	8.6	20.1	126.3	10.3	13.5	2.9	39.8	134.3
Bradesco	59,253	26,532	23,075	5,441	4.9	2.1	172.2	17.1	15.5	7.3	25.6	74.4
Itaú	45,165	16,571	16,028	4,066	4.1	0.9	506.2	19.8	17.3	6.9	36.1	72.7
Unibanco	27,002	14,012	5,988	2,754	5.1	1.7	301.2	14.0	17.6	7.5	35.9	83.1
Banespa	23,229	4,499	10,596	3,438	1.3	29.9	105.0	36.9	(2.5)	4.8	30.4	104.4
Real (Group)	18,762	9,708	7,058	1,590	6.1	1.7	221.5	14.8	12.4	4.7	37.3	95.1
Safra	14,789	4,227	3,244	752	5.6	1.3	100.2	12.2	17.6	3.6	24.1	72.4
Meridional	14,209	3,448	2,763	882	3.9	0.8	320.2	17.0	0.0	1.8	44.6	84.5
BCN	13,993	6,019	2,712	627	9.6	3.5	170.2	17.1	20.1	4.0	17.1	75.1
Nossa Caixa	13,437	1,251	8,695	792	1.6	8.8	101.6	31.6	8.7	5.8	13.5	79.3
HSBC Bamerindus	12,144	3,077	5,939	954	3.2	1.1	153.5	23.3	10.1	5.5	46.8	100.5
Bozano, Simonsen	11,557	2,370	995	400	5.9	0.5	409.0	17.0	0.0	(0.6)	246.7	162.0
BankBoston (Group)	9,145	3,006	1,295	643	4.7	0.4	171.1	16.1	19.5	6.6	17.9	57.0
Citibank (Group)	8,699	5,152	1,311	922	5.6	3.0	116.4	13.9	12.2	5.4	33.5	62.2
CCF Brasil	8,645	1,573	230	308	5.1	0.8	89.0	14.7	26.3	1.1	34.4	61.1
BBA	7,479	2,598	1,843	520	5.0	0.3	202.0	13.3	24.4	1.6	21.4	52.4
Sudameris	6,870	3,275	1,676	499	6.6	5.6	66.0	11.3	12.1	5.4	17.2	89.2
Excel-Econômico	6,411	2,321	1,965	(503)	(4.6)	18.3	159.4	**10.8	8,536	(13.8)	(9.9)	(71.1)
Mercantil Finasa	6,209	2,424	3,448	1,041	2.3	3.0	82.4	26.2	8.9	5.7	18.9	86.3
Boavista InterAtlântico	5,171	2,283	1,497	340	6.7	11.4	124.5	11.9	8.2	4.7	13.8	90.0
Source for gross data: Bozano, Simonsen, Atlantic Rating and banks' balance sheets.												
*Exchange rate: R\$ 1.16/US\$.												
**Position in 12/97. Data not available for June 1998. However, according to Atlantic Rating, the bank continued with an index less than 11% in this month.												

5.2. Comparisons among Major Banks in Brazil, the United States, and Other Emerging Countries in Latin America and East Asia

The comparison between banks in Brazil and other countries should be made with a certain caution, once such institutions tend to be profoundly affected by the economic conditions in each country. In particular, the Asian crisis affected the banks of that region very seriously. The contrast between the structure of Brazilian financial institutions and those in Asia, however, is obvious when we consider the degree of leverage of the latter before the crisis. Unfortunately, for this study we were not able to obtain data on default rates prior to 1997.

Table 8 presents selected indicators for the five largest multiple and commercial banks in Brazil, together with the major banks of the United States and other emerging countries in Latin America and East Asia. The table shows that, with the exception of Banco do Brasil, all the major banks operating in Brazil are less leveraged than most of the banks analyzed in the other countries. For US banks, for example, the relationship between loans granted and net equity is about 70% higher than that of Brazilian domestic private-sector banks. Such data demonstrates the existence of great space for increasing domestic credit. In clear contrast with the Brazilian banks, the table also shows the excessive leverage of financial institutions in South Korea, Indonesia and Thailand. It is worth observing that before the Asian crisis, this level was also very high. At the end of 1996 the total value of the Korea Exchange Bank's credits, for example, corresponded to 825% of its net equity. In Indonesia the indices for Bank International Indonesia and Bank Lippo were 916% and 822%, respectively. And in Thailand, Bangkok Bank and Bank of Asia's indices were 932% and 886%, respectively.

The indicator that follows shows that while the Brazilian public-sector multiple and commercial banks analyzed presented a quite high default rates, even in comparison with some Asian countries, the country's domestic private-sector banks were shown to have had much less problematic credit portfolios than most of the banks in the other countries analyzed. With respect to South America, the default index of private Brazilian banks was much less than those of the major Argentinean and Mexican banks, but slightly higher than Chilean banks. The default rate at Bradesco, Itaú and Unibanco is also less than the major foreign banks in Argentina (Banco Rio de la Plata and Banco Francés) and Mexico (Santander Mexicano). In Argentina, the process of transferring the control of national banks to foreign institutions has been more intense than in Brazil. Of the 15 largest banks in the country, only one remained under national private-sector control, Banco Galicia [see *Gazeta Mercantil* (6/2/97)].

In comparison with the Asian countries that were analyzed, the default rate of private-sector Brazilian was only greater than Hong Kong's financial institutions. In fact, because of the Asian crisis, the financial system of the region have been undergoing a very broad restructuring process. In Indonesia, the government closed the operations of three private-sector banks – Bank Dagang Nasional Indonesia, Modern Bank, and Bank Umum National – in August 1998. Also on that date, the government assumed control of Bank Central Asia, the largest private-sector bank in the country, in addition to Bank PDFCI and Bank Tiara

Asia. In South Korea the government nationalized Korea First Bank (which appears in Table 8) and Seoul Bank in January 1998, two of the banks with the biggest problems in the country. In July, Commercial Bank of Korea merged with Hanil Bank, becoming the largest bank in the country. Also in 1998, in September, the bank sold 4 trillion of won worth of credits in arrears and in liquidation and, the following month, received a 3.3 trillion of won (about US\$ 2.4 billion) financial aid package from the government to restructure the institution.

Table 8

Comparison between Brazilian, US, and Emerging Countries' Banks

	Assets (US\$ millions)	Credits (US\$ millions)	Deposits (US\$ millions)	Net Equity	Credits/Net Equity	Default/ Credits (%)	Provis./ Default (%)	Capital Adapt. Index (%)	Profit/ Net Equity (%)	Net Margin (%)	Income Servs./ IS+IFM (%)	Efficiency (%)
Brazil (1st half 1998)												
Banco do Brasil	111,913	46,957	52,423	5,433	8.6	20.1	126.3 [∇]	10.3	13.5	2.9	39.8	134.3
Bradesco	59,253	26,532	23,075	5,441	4.9	2.1	172.2 [∇]	17.1	15.5	7.3	25.6	74.4
Itaú	45,165	16,571	16,028	4,066	4.1	0.9	506.2 [∇]	19.8	17.3	6.9	36.1	72.7
Unibanco	27,002	14,012	5,988	2,754	5.1	1.7	301.2 [∇]	14.0	17.6	7.5	35.9	83.1
Banespa	23,229	4,499	10,596	3,438	1.3	29.9	105.0 [∇]	36.9	(43) ^Δ	4.8	30.4	104.4
United States (1st half 1998)												
Chase	366,995	165,076	207,091	22,610	7.3	0.7	2.2 [◇]		17.0	1.9	47.7	53.0
Citicorp	330,751	186,084	215,982	21,717	8.6		3.3 [◇]		20.9	2.9	38.6	49.0 ⁺
Nations Bank	307,985	179,755	169,238	26,670	6.7		1.8 [◇]		14.8	3.0		34.0 ⁺
Bank America	263,885	163,104	178,094	20,039	8.1		2.2 [◇]		18.0	2.8	37.7	
BankBoston	70,499	42,520	45,196	4,980	8.5		1.7 [◇]		20.2	3.0	33.1	46.0 ⁺
Argentina (1st half 1998)												
De la Nación Argentina	17,659	8,276	11,604	2,065	4.0	21.7 ⁺	47.3 ^{∇+}		6.7	2.3	43.9	86.3
Rio de la Plata	14,182	4,900	4,262	953	5.1	3.3 ⁺	106.5 ^{∇+}		12.6	2.3	39.8	80.0
De la Prov. de Buenos Aires	12,856	7,615	9,225	1,263	6.0	16.5 ⁺	51.2 ^{∇+}		6.5	2.0	60.7	104.5
De Galicia y Buenos Aires	11,425	6,441	6,449	1,089	5.9	5.2 ⁺	70.9 ^{∇+}		10.5	2.9	37.3	79.8
Frances S.A.	11,235	4,888	5,012	748	6.5	2.2 ⁺	98.5 ^{∇+}		11.5	2.2	49.0	92.4
Chile (1997)												
Santiago	10,797	7,531	5,245	936	8.0	0.7	143.7 [∇]		14.7	2.9		
Del Estado	10,780	5,669	6,031	647	8.8	2.3	81.1 [∇]		9.9	3.3		
Santander	9,922	5,492	4,780	700	7.9	1.2	102.9 [∇]	10.7	10.3	2.3	16.3	61.5
De Chile	7,646	5,109	4,136	771	6.6	0.8	208.6 [∇]		21.1	3.7		

De Credito e Inversiones	6,019	3,386	3,367	310	10.9	0.9	114.8	∇		22.0	3.1		
Mexico (1997)													
Banamex	31,154	16,963	21,607	2,749	6.2	20.5	55.4	∇	13.7	13.0	2.2	32.1	100.0
Bancomer	27,116	20,089	19,194	2,351	8.5	13.7	57.5	∇	12.7	6.0	2.9	22.4	69.9
Serfin	17,930	12,220	12,928	1,002	12.2	10.8	61.1	∇	11.3	(216)	Δ	2.3	22.7
Bital	9,181	6,302	6,457	748	8.4	14.9	53.7	∇	12.6	(19)	Δ	2.9	
Santander Mexicano	8,019	5,563	5,643	351	15.9	2.8	135.1	∇	10.5	(16)	Δ	3.1	
South Korea (12 months until June 30, 1998)													
Korea Exchange Bank	41,881	27,999	26,031	1,408	11.9	7.8	100.0	∇	6.8	(393)	Δ		12.1
Chohung Bank	37,394	24,950	26,413	1,242		10.4	100.0	∇	6.5	(667)	Δ		
Hanil Bank	36,349	24,810	24,825			7.0	100.0	∇	6.9	(587)	Δ		
Commercial Bank of Korea	32,421	20,149	23,421			6.9	100.0	∇	7.6	(398)	Δ		
Korea First Bank	28,152	16,058	18,903			16.3	100.0	∇	-2.7	(976)	Δ		
Hong Kong (June 30, 1998)													
HSBC Holding PLC	484,367	241,100	344,297	27,540	8.8	2.2	110.3	∇	9.3	18.2	2.3	33.7	56.2
Hang Seng Bank	52,581	26,020	44,409	6,034	4.3	0.9			22.0	16.9			
Bank of East Asia	17,216	11,097	12,411	1,805	6.1	1.3			15.3	10.5			
Dao Heng Bank	15,829	8,360	12,878	1,433	5.8	0.6			17.9	15.3			
Wing Lung Bank	6,607	3,738	5,236	778	4.8	4.8			14.3	12.7	2.1		
Indonesia (1997, excluding the mentioned cases)													
Bank Negara Indonesia	9,758 [#]	7,036 [#]	5,095 [#]	375 [#]	18.7 [#]	10.5 [#]			6.0 [#]	4.7 [#]	3.5 [#]		
Bank International Indonesia	5,031	3,357	2,897	521	6.4	33.6	4.0	∇	11.7	9.6	4.1		
Bank Lippo	2,640	2,075	2,282	204	10.2	10.0	27.4	∇	10.4	12.4	4.0	23.0	
Bank Bali	2,565	469 [*]	1,596			55.0			10.8				
Bank Panin	1,607	283 [*]	846			20-25			17.4				

Thailand (1997, excluding the mentioned cases)											
Bangkok Bank	31,281	22,818	21,029	2,292	10.0	29.7	18.9 [∇]	13.0	4.1	3.2	
Krung Thai Bank	19,200 [*]	15,253 [*]	14,989 [*]	1,221 [*]	12.5 [*]	32.4	25.9 [∇]	7.7	(305) ^Δ	(2.4) [*]	
Siam Commercial Bank	15,839	12,367	12,831	921	13.4	19.9	16.3 [∇]	9.1	7.7	3.4	
Bank of Ayudhya	10,905	8,900	8,593	579	15.4	17.3	15.7 [∇]	9.2	7.5	3.0	
Bank of Asia	3,456	2,892	1,769	218	13.3	25.9	9.8 [∇]	8.6	0.4	2.7	
Exchange rates: R\$ 1.16 /US\$ (Br.); 1.00 pesos/US\$ (Arg.); 439.81 pesos/US\$ (Ch.); 8.055 pesos/US\$ (Mex.); 1484.08 won/US\$ - 12/31/97 and 1397.77 won/US\$ - 6/30/98 (Kor.); 7.744 HK\$/US\$ (H.K.); 4.909 rupiah/US\$ - 12/31/97, 8.669 rupiah/US\$ - 3/30/98, and 14.621 rupiah/US\$ - 6/30/98 (Ind.); 45.28 baht/US\$ - 12/31/97 and 42.33 baht/US\$ - 6/30/98 (Thai).											
*First half 1998, # : 3/31/98; + : 12/31/1997; Δ : US\$ millions; ∇ : Provisions/Delinquent and non-performing credits; ◊ : Provisions/Total credits.											
Source: Atlantic Rating, Bozano Simonsen, Central Bank of Argentina, <i>Latin Finance</i> , <i>Far Eastern Economic Review</i> and bank balance sheets.											

Table 8 shows that while the major banks in Brazil possess more than enough provisions to cover their credits in arrears and in liquidation, the same does not occur with the largest banks in Argentina and Mexico. In Indonesia and Thailand, the available data indicates a much lower level of provisions with respect to delinquent and non-performing credits. In South Korea, the situation of the banks there led the Office of Bank Supervision (OBS) to require that enough provisions be set aside to cover all the lost credits and damages resulting from the fall in the value of securities investments, as stipulated in the IMF program for that country. The capital adaptation indexes obtained also show the greater vulnerability of the Asian banks. In this context, the low index for Bank Negara Indonesia in the first quarter 1998, and the banks of South Korea at the end 1997, stand out.²⁴

With the exception of Banco do Brasil and Banespa, the return on net equity for the major Brazilian banks (16.6%) was slightly less than that reported for the US (17.5%) and Hong Kong (17.4%) banks. On the other hand, their return was greater than the banks in Argentina, Mexico, South Korea, Indonesia and Thailand.²⁵ In the case of South Korea, besides the effects of the Asian crisis, profitability was affected by the establishment of more rigid criteria for capital adaptation. In the first half of 1998, South Korea's 22 banks suffered heavy losses of US\$ 5.16 billion, due to the high level of provisions they had to set aside to cover credits in arrears and in liquidation.

The net margin for Brazilian banks, especially for the major private-sector banks, is much higher than that for the other countries. In this case, the main explanation is due to the high bank spreads (difference between passive and active rates) practiced by Brazilian banks. In 1998, for example, rates for working capital loans and hot money (active rates for short-term operations) were 53% and 42% per annum, respectively. On the other hand, Brazilian banks also paid their customers a rate of 24% per annum for funds applied in CDBs (certificates of bank deposit).²⁶

The relationship between revenues from services and the revenues from financial mediation combined with services is practically equal for Brazilian national banks and US banks. It is worth remembering, as analyzed in the previous section, that revenues from services only started to represent a significant portion of the revenues for banks operating

²⁴ The situation of Bank Negara Indonesia demonstrates the consequences of the Asian crisis on the balance sheets of Indonesian banks. The capital adaptation index of the institution fell from 12.2% in the first quarter of 1997 to 8.3% at the end of 1997, and 6% by the first quarter of 1998.

²⁵ The superiority of Brazilian banks in relation to the banks in these countries is also maintained in the data for 1997. In this year, return on net equity was 9.6% for Banco do Brasil, 13.6% for Bradesco, 16.3% for Itaú, 14% for Unibanco, and 51.8% for Banespa.

²⁶ Puga (1998) estimates a Bayesian vector auto-regression model (BVAR) which establishes a relation between the compulsory deposits, bank spreads (difference between interest rates on working capital loans and the CDB rate), GDP, and inflation. The results show that unexpected increases (shocks) in the level of compulsory deposits explain 9.6% of the variation in spreads over a 12-month horizon. On the other hand, shocks in GDP or inflation did not have significant effects on spread levels. In fact, the differential in interest rates charged for working capital loans reached 3.5% a month in the second quarter of 1995, compared to less than 1% a month in the months immediately prior the Real Plan. During this period, the authorities made wide use of the compulsory deposits to help stimulate the stabilization of the economy, including the establishment of a reserve for active bank operations in October 1994. In November 1995, this requirement was revoked.

in Brazil after the stabilization of the economy and the liberalization of certain bank tariffs.

Finally, the data shows that the US banks have a higher level of efficiency than Brazilian national banks. The results are similar to those obtained in the McKinsey (1998) report on the Brazilian economy. That study shows that the level of labor productivity in Brazilian banks is about 40% of the productivity level of the US banks; 29% for national public-sector banks and 52% for private-sector banks. One of the factors that explains this difference lies in the fact that, as seen in Section 4.2, during the period of high inflation Brazilian banks established enormous networks of agencies, with payment of bills being made directly at such locales. This kind of payment process is far more labor intensive than that used in the United States, where most transactions are made by mail. Furthermore, back-office work is more decentralized in Brazil. The McKinsey study cites the example of agency managers who spend a lot of time making decisions with respect to debiting bad checks and the fact that many phone calls from clients are attended to by the agencies. The centralization of such processes would facilitate greater automation of procedures, producing economies of scale. The study also illustrates the need for larger automation in the decision-making processes for granting loans.

6. Bank Vulnerability to an Exchange Rate Devaluation

From October 1991, when Brazil suffered an exchange rate maxi-devaluation, until the end of 1998, the monetary authorities maintained a high and stable differential between the interest rates offered on federal public securities denominated in dollars and those interest rates practiced in the developed countries, in particular the United States.²⁷ Over that period, banks raised funds abroad in order to re-pass them on in the domestic market. In January 1999, the Central Bank stopped establishing limits on the fluctuation of the exchange rate, leading to a strong depreciation in the value of the domestic currency. With that move, the differential between domestic dollar-indexed and foreign interest rates ended up being negative for the month. Such facts raise concerns about the capacity of Brazilian companies which have contracted financing in foreign currency to fulfill their obligations to banks, and what kinds of hedges exist for financial institutions with respect to the credits they have granted, and for their investments in government securities. In other words, if such assets in the financial system are protected against an exchange rate devaluation.

Unfortunately, the available data from the Central Bank on bank results only provides information on liabilities held in foreign currency, and not any assets in such currency. However, it is certain that the financial system did not suffer any significant losses with the recent change in the exchange rate regime, based on an analysis of its liabilities held in foreign currency, from information obtained on the raising of funds abroad and the volume of federal public securities indexed to the exchange rate.

The volume of foreign obligations in the national banking system fell substantially during the second half of 1998, in relation to the previous half. At the end of 1998, a large

²⁷ Before October 1991, domestic interest rates did not have any defined tendency in relation to foreign interest rates [Puga (1995)].

part of such obligations referred to foreign bank liabilities (branches of foreign banks and banks under foreign control), which have greater ease in raising funds abroad. Such institutions can always fall back on their head offices to resolve any eventual difficulties in honoring foreign commitments, thus being less vulnerable a change in the exchange rate.

Table 9 shows the share of the different banks analyzed in Section 4 in the total debt obligations and foreign possessions held by the banks. The foreign obligations are constituted mainly by loans raised abroad and by operations involving of foreign possessions supported by Resolution 63 and by obligations with stocks and securities abroad.²⁸ As for foreign possessions, are basically investments and availability in foreign currencies. At the end 1998, the foreign obligations of the banking system totaled US\$ 59.9 billion. Considering multiple and commercial banks alone, this value was on the order of US\$ 50.3 billion. Of that total, only 28.7% corresponded to domestic private-sector bank operations (US\$ 14.4 billion),²⁹ and 40.3% (US\$ 20.3 billion) to foreign bank issues. It is worth mentioning that during the entire period analyzed, the share of foreign banks in the total foreign obligations of the national financial system was much greater than its share in the system's credits, assets, deposits and net equity (see Table 4).

²⁸ In foreign capital operations involving Resolution 63 of August 1967, banks may not use the funds obtained for their own benefit, being obliged to pass these resources on to national companies without necessarily having the duration of the two operations be identical.

²⁹ The significant drop in the share of state public-sector banks in the total foreign obligations of the national banking system in the second half of 1997 was due to the federalization of Banespa.

Table 9										
Share of the Federal, State, Private National and Foreign Banks in the										
Total Debts and Foreign Possessions of Commercial And Multiple Banks										
	Jun/94	Dec/94	Jun/95	Dec/95	Jun/96	Dec/96	Jun/97	Dec/97	Jun/98	Dec/98
Federal Public-Sector										(In %)
Foreign Obligations	19.0	23.1	20.5	12.9	11.7	12.1	13.6	14.1	12.7	15.2
Foreign Possessions	37.7	37.3	34.1	13.1	6.4	11.2	22.3	23.8	25.4	34.2
Net Foreign Obligations*	12.7	16.2	15.1	12.9	13.7	12.3	11.6	12.1	10.8	12.0
State Public-Sector										(In %)
Foreign Obligations	5.6	5.7	5.7	5.3	4.7	4.3	4.5	0.7	0.3	0.3
Foreign Possessions	8.7	7.9	9.3	13.4	10.1	12.7	15.3	1.1	0.5	0.1
Net Foreign Obligations*	4.5	4.6	4.3	3.2	2.8	2.2	2.1	0.6	0.2	0.4
Private National										(In %)
Foreign Obligations	40.9	43.1	44.8	46.1	44.3	47.3	44.4	39.1	35.6	28.7
Foreign Possessions	36.4	34.5	37.9	49.2	57.5	48.0	37.5	52.8	47.9	29.2
Net Foreign Obligations*	42.5	47.2	47.5	45.2	39.4	47.1	46.0	36.2	33.6	28.7
Foreign – Branches										(In %)
Foreign Obligations	11.1	7.2	7.2	10.0	10.6	8.7	8.8	10.0	12.1	11.3
Foreign Possessions	3.6	4.7	4.2	6.2	8.5	9.9	3.0	3.8	2.5	5.7

Net Foreign Obligations*	13.7	8.3	8.4	11.0	11.3	8.4	10.2	11.3	13.6	12.2
Private National under Foreign Control										(In %)
Foreign Obligations	14.3	11.1	11.8	15.0	16.6	17.1	19.5	21.2	24.1	29.0
Foreign Possessions	8.3	5.3	3.7	4.8	5.7	8.2	14.4	12.0	14.0	23.0
Net Foreign Obligations*	16.3	13.9	14.9	17.6	20.6	19.4	20.7	23.1	25.7	30.0
Private National with Foreign Stock Participation										(In %)
Foreign Obligations	9.1	9.9	10.1	10.7	12.1	10.5	9.1	15.0	15.3	15.4
Foreign Possessions	5.3	10.2	10.7	13.4	11.9	10.0	7.5	6.6	9.6	7.8
Net Foreign Obligations*	10.4	9.8	9.8	10.0	12.2	10.6	9.4	16.7	16.1	16.7
Total Commercial and Multiple Banks										(In US\$ millions)
Foreign Obligations	35,199	36,266	41,707	43,725	48,337	51,090	49,535	55,298	64,432	50,344
Foreign Possessions	8,951	11,876	11,715	9,149	13,013	10,296	9,245	9,546	8,700	7,114
Net Foreign Obligations*	26,248	24,390	29,992	34,576	35,324	40,794	40,290	45,751	55,732	43,230
Total National Banking System										(In US\$ millions)
Foreign Obligations	38,135	38,888	44,269	46,311	51,552	54,555	53,511	59,854	69,841	59,863
Foreign Possessions	9,598	14,242	12,288	9,423	13,571	10,437	9,387	9,650	8,704	7,189

Net Foreign Obligations*	28,537	24,646	31,981	36,888	37,980	44,118	44,125	50,205	61,136	52,673
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* Net Foreign Obligations = foreign obligations – foreign possessions.
 Source for gross data: Sisbacen.

Table 10 shows the relationship between banks' gross foreign obligations and liabilities and their gross and net foreign obligations, with respect to equity. Over the entire period analyzed, the high volume of international issues made by foreign banks and banks with foreign stock participation is worth noting, especially in relation to the size of these institutions. At the end of 1998, the value of net foreign obligations for branches of foreign banks, for example, was about five times their net equity. In what concerns the case of the domestic private-sector banks, the amount of net foreign obligations was less than their net equity.

Table 10										
Vulnerability of Commercial and Multiple Banks to an Exchange Rate Devaluation										
	Jun/94	Dec/94	Jun/95	Dec/95	Jun/96	Dec/96	Jun/97	Dec/97	Jun/98	Dec/98
Foreign Obligations/Liabilities										(In %)
Federal Public-Sector	9.5	10.0	10.1	7.1	7.6	8.1	7.3	5.5	6.3	6.2
State Public-Sector	5.7	3.1	2.7	2.3	2.1	2.0	1.9	0.8	0.5	0.6
Private National	11.9	10.3	10.2	11.7	10.1	12.8	11.0	12.3	11.8	9.0
Foreign – Branches	24.6	24.1	26.2	32.1	26.4	35.6	28.0	36.9	45.6	47.7
Private National under Foreign Control	28.0	20.9	23.4	22.8	21.2	21.1	15.2	18.8	21.0	17.6
Private National with Foreign Stock Participation	18.6	18.1	18.2	18.2	19.3	20.8	14.6	17.5	18.3	17.4
Total Commercial and Multiple Banks	12.7	10.3	10.1	10.4	10.1	11.2	9.5	11.2	12.7	11.2
National Banking System	10.5	8.1	8.3	8.3	8.2	9.0	7.8	9.1	10.5	9.7
Foreign Obligations/Net Equity										
Federal Public-Sector	1.0	1.1	1.5	0.9	0.4	1.0	1.1	0.9	0.9	0.8
State Public-Sector	0.6	0.6	0.7	0.7	0.9	0.5	0.5	0.2	0.1	0.1
Private National	1.2	0.8	0.9	1.7	1.9	1.2	1.1	1.1	1.2	0.6
Foreign – Branches	4.7	2.4	2.7	3.7	4.2	3.4	3.6	4.7	6.3	5.1
Private National under Foreign Control	3.2	1.5	1.8	2.5	2.9	2.7	2.1	2.2	2.8	1.5
Private National with Foreign Stock Participation	2.4	1.5	1.5	1.7	2.0	1.9	1.5	1.6	2.1	1.7
Total Commercial and Multiple Banks	1.3	1.0	1.2	1.6	1.4	1.3	1.2	1.3	1.6	1.0
National Banking System	1.0	0.7	0.8	1.0	0.9	1.0	1.0	1.0	1.3	1.0
Net Foreign Obligations /Net Equity										
Federal Public-Sector	0.5	0.5	0.8	0.7	0.3	0.8	0.8	0.6	0.6	0.6
State Public-Sector	0.3	0.3	0.4	0.3	0.4	0.2	0.2	0.1	0.1	0.1
Private National	0.9	0.6	0.7	1.3	1.2	0.9	0.9	0.9	1.0	0.6

Foreign – Branches	4.3	1.9	2.2	3.2	3.3	2.6	3.4	4.4	6.2	4.8
Private National under Foreign Control	2.7	1.3	1.6	2.3	2.6	2.5	1.8	2.0	2.6	1.4
Private National with Foreign Stock Participation	2.0	1.0	1.1	1.2	1.5	1.5	1.3	1.5	1.9	1.6
Total Commercial and Multiple Banks	1.0	0.7	0.8	1.2	1.0	1.0	1.0	1.1	1.4	0.9
National Banking System	0.7	0.5	0.6	0.8	0.7	0.8	0.8	0.9	1.1	0.9
Source for gross data: Sisbacen.										

The foreign funds raised by banks have been destined basically for discount operations involving export bills, foreign trade financing, and investments in foreign stocks and securities. With respect to exporting companies who have debt in foreign currencies, since a portion of their revenues are also in these currencies, they normally do not have any difficulties in honoring their foreign commitments. The problem is more serious in the case of import financing. However, banks have been using DI and dollar futures contracts on the São Paulo Futures and Commodities Exchange (BM&F) to protect their customers against oscillations in interest rates and the exchange rate. Finally, banks have also been investing in federal securities indexed to the exchange rate in order to protect themselves against a possible devaluation in the currency. According to the Central Bank, the volume of such securities held outside the monetary authority was on the order of US\$ 68 billion in December 1998, about 21% of the total stock of federal securities. Even considering the possibility that the entire US\$ 1.1 billion in domestic capital invested in funds indexed to the exchange rate, and the US\$ 1.4 billion applied in federal public securities by foreign fixed-income funds are completely invested in exchange rate-index federal public securities, there would still be about US\$ 65.5 billion in exchange rate-indexed securities held in bank portfolios.³⁰ Such an amount exceeds the gross foreign obligations of the banking system by about US\$ 5.7 billion, and its net foreign obligations by some US\$ 12.8 billion. In sum, on the side of assets held by banks in foreign currency, the available data indicate that the financial system is also very well protected against an exchange rate devaluation.

7. Conclusion

The fall in inflationary transfers in the post-stabilization period of the economy has made a deep restructuring of the Brazilian financial system inevitable. In the beginning, banks tried to adjust to the new scenario by increasing their credit operations expressively. Such activity, however, was interrupted by an increase in default in the second half of 1995, which significantly worsened banks' profits. The collapse of Banco Econômico was an additional factor that forced the monetary authorities to make changes in banking legislation and regulations as well as to the implementation of the Proer and Proes programs. To also deserves be mentioned the decision to allow foreign banks entry into the national banking system.

This study analyzes the major changes undertaken in the post-Real Plan financial system, and to evaluate its current solidity. In answering the questions formulated in the Introduction, the major results obtained were:

1. Domestic private-sector banks are currently in a less vulnerable position than they were during the first years of the Real Plan. In fact, the degree of leverage of these institutions at the end 1998 was at its lowest level for the entire 1994-1998 period. Furthermore,

³⁰ Data referring to exchange rate-indexed funds was obtained from the National Association of Investment Banks and Securities Dealers (Anbid) magazine *Revista da Anbid*, while the positions of foreign capital fixed-income funds in exchange rate-indexed securities were obtained from the Central Bank's monthly bulletin (*Boletim Mensal do Banco Central*). In order to convert the values into dollars an exchange rate of R\$1.21/US\$1.00 was used.

domestic private-sector banks were less affected by the Asian crisis in 1997 than by the Mexican one of 1995. While in this latter case the default rate increased from 3.9% in June 1995 to 16.6% in June 1996, in the former situation the rise went from 3.6% in June 1997 to 5.1% in June 1998, dropping over the subsequent semester to 4.2%.

2. The 10.3% default rate in the Brazilian banking system observed in December 1998 was strongly concentrated in federal public-sector multiple and commercial banks, being the major problem the loans made by Banco do Brasil to the agricultural sector. It is worth observing that the non-performed credits destined to that sector have been covered by the National Treasury. In the case of domestic private-sector banks, the default rate was only 4.2%. Furthermore, international comparisons reveal that the major domestic private-sector banks are much less vulnerable to credit risk than the banks of Argentina, Mexico, Indonesia, Thailand and South Korea. In this way, at least respect to loans from the banking sector, the financial system is currently quite solid, being quite remote the possibility of a systemic crisis.

3. Proes, unlike previous state bank restructuring programs, has brought about a significant reduction in the share of these institutions in the national financial system, besides improving the administration of funds. Of the total of 35 state financial institutions in August 1996, the expectation is that just nine will remain at the end of the program. At the end of 1997, the share of state banks in the total assets held by multiple and commercial banks had already fallen to less than half the level reported in June 1996. After Proes was initiated, there was also a strong decline in the level of leverage of these institutions, and an increase in provisions for credits in arrears and in liquidation.

4. The entry of foreign banks has contributed to giving more solidity and efficiency to the national financial system. Over most of the period analyzed, between December 1994 and June 1997, national banks under foreign control were the most efficient. It is worth mentioning the acquisition of Bamerindus by HSBC, in which, for the first time in the history of Brazil, the failure of a large domestic financial institution was resolved by selling it to a foreign interest. Furthermore, there was an expressive increase in the efficiency of the institution after the stock control transfer.

5. Uncertainty regarding the impact of an increase in foreign presence on the national financial system is still quite high. This concern exists especially with respect to how many domestic private-sector banks will be able to resist the increase in competition. Nevertheless, it is hardly expected that Brazil will repeat the experience of Argentina, where only one domestic private-sector bank remains among the top 10 in the country. At the end of 1998, domestic private-sector banks in Brazil were broadly hegemonic in comparison to foreign banks, not only in what respects the credits conceded, the assets, the deposits, but also in the net equity in the ranking of the major financial institutions in terms of assets. In the last two years, these institutions absorbed important privatized state banks. Meanwhile, the presence of foreign banks in that process has been quite modest, although that may change depending on who comes to buy Banespa. Finally, as already noted, the balance sheet data reveals that domestic private-sector banks are very solid, and, furthermore, have been responding to the greater presence of foreign banks by seeking to become more efficient.

6. The national financial system might not be seriously affected by an exchange rate devaluation. A significant portion of the country's foreign fund-raising has been made by foreign banks, which can always fall back on their head offices abroad to resolve any possible difficulties in honoring foreign debt commitments. Furthermore, the net foreign debt exposure of national banks is directed principally to financing the exporting companies, which have sources of revenue in foreign currency; to importers, for which banks have been offering futures contracts in order to hedge against a devaluation of the currency; or in hedged exchange rate-indexed securities. In the last case, the available data obtained indicate that the value of these securities at the end 1998 in fact exceeded the total value of the national banking system's foreign obligations.

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