Banking behaviour and the Brazilian economy after the Real Plan: a Post-Keynesian approach*

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1. Introduction

In the recent past the Brazilian economy has been marked by a 'stop-go' trend. High banking spreads and low credit-to-GDP ratios have contributed to keeping economic growth below the economy's potential. The switch from an exchange anchor regime to a floating exchange regime in January 1999, which marked the end of the Real Plan, was expected to reduce external vulnerability and bring down interest rates, thus enabling the economy to overcome macroeconomic constraints and move towards more sustainable growth. Such, however, has not been the case, since there are still some severe macroeconomic constraints hindering economic recovery.

This paper intends to analyse the behaviour of the Brazilian banks in the current phase of the business cycle, with the economy in a state of semi-stagnation. We argue – taking a Post-Keynesian ap-

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proach – that banking behaviour has been determined by the specific institutional-macroeconomic context of the current phase of the Brazilian economy, with banks taking advantage of the high rates of interest and the conditions in which the government has managed its internal debt. But, at the same time, the banking strategies are determinants of the current phase since portfolio allocation has been dominated by short-termist behaviour and high liquidity preference, which have resulted in low credit supply and a high banking spread.

In this paper we concur with Minsky (1985, pp. 26-27) that, in order to understand the economy correctly, it must be borne in mind that

> "a capitalist economy with sophisticated financial institutions is capable of a number of modes of behaviour and the mode that, actually rules at any time depends upon institutional relations, the structure of financial linkages and the history of the economy".

In fact, one current institutional specificity of the Brazilian economy is the size and composition of the public debt – predominantly indexed and shorter-term bonds. As we show in this paper, the resulting environment has favoured the adoption of a short-termist but profitable posture by the banking sector in Brazil. As a result, the bank trade-off between liquidity and profitability – that is, the starting point of the liquidity preference approach – does not apply to the current Brazilian case because of specific features of the institutional-macroeconomic environment.

The paper is divided into four sections plus this introduction. Section 2 analyses banking behaviour according to the Post-Keynesian liquidity preference approach. Section 3 examines some macroeconomic constraints on economic growth in Brazil, focusing particularly on public debt. Section 4 analyses banking behaviour and the determinants of banking spread in Brazil after the end of the Real Plan. Finally, Section 5 summarises the main arguments developed in the paper.

2. Banking behaviour and credit supply: the liquidity preference approach

According to the Post-Keynesian approach, banks – like any other capitalist business – take their portfolio decisions on the expectation of greater profit, in the light of their liquidity preference and appraisal of financial wealth in an uncertain world. Banks are economic agents whose liquidity preference is largely determined by their expectations under Knight-Keynes's non-probabilistic uncertainty,[1] and who manage their portfolio according to the trade-off between liquidity and profitability. Their position on the liquidity preference scale reflects the caution inherent to uncertain results of banking activity *vis-à-vis* portfolio returns. The liquidity preference approach explains the balance sheet strategy, rather than the choice of particular liabilities according to the banks' perception of risks and profit opportunities:

> "For a given state of expectations, banks' liquidity preference will determine the desired profile of the assets they purchase and their prices; that is, the rate of returns each type of asset must offer to compensate for their degree of illiquidity" (Carvalho 1999, p. 132).

Banks with liquidity preferences do not accommodate the demand for credit passively; rather, they compare expected returns and liquidity premiums for all purchasable assets. This means that credit supply may be curtailed because of the banks' increased liquidity preference, regardless of the 'true' risk attached to commercial lending. Credit rationing would therefore arise quite independently of the expected returns on capital investment projects (Dow 1996, pp. 503-04).

According to the Post-Keynesian approach, banks are seen as active agents dynamically managing the two sides of their balance sheet. This means that they do not consider their liabilities as externally determined according to customers' preferences; rather, they seek to influence customers' preferences through liability management and financial innovations.[2] Thus, modern banks set out to act dynamically on the liability side of the balance sheet, making vigorous efforts in

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[1] Non-probabilistic uncertainty refers to economic phenomena for which "there is no scientific basis on which to form any calculable probability whatever. We simply do not know" (Keynes 1973, p. 114).

[2] See, in this connection, Minsky (1986, ch. 10) and Wray (1990).

search of new deposits and/or managing their reserves, which means that the funds financing their assets are strongly conditioned by the banks' own behaviour. Therefore, rather than passively receiving funds according to their customers' individual preferences, the banks seek to intervene in these choices in various ways, promoting shifts in their liability structure so as to take advantage of the profit opportunities in their business.

The banks play an important and contradictory role in the business cycle since their behaviour is able to amplify economic growth during the upturn of a cycle, while it can amplify the downturn in times of crisis. Thus, during the upturn banks have an important role to play in meeting business demand for credit. Bankers respond to optimistic views on the viability of firms' debt structure typical of a period of euphoria by increasing their lending in order to meet the firms' credit demand. As firms with expectations and motivations of their own, banks behave in ways that are vital in determining the financial conditions of a capitalist economy. From the point of view of the bank portfolio, when their expectations become more optimistic during the upturn (that is, their degree of confidence in their own expectations increases), the banks prefer monetary returns over liquidity. Consequently, they decrease the ratio of liquid to illiquid assets in their portfolios, thereby increasing the proportion of advances to customers – and particularly long-term loans – in the banks' portfolio. Efforts to achieve greater profits in the business cycle upturn may lead the banks to adopt a more speculative posture: a banker will seek to obtain higher monetary returns by accepting longer-term and/or riskier assets and, at the same time, finding ways to reduce the rate of return on deposits by offering safety promises and other special guarantees to their customers. As a result of these banking strategies, credit supply increases in order to support agents' expenditures, thus meeting the necessary condition for increase in the level of economic activity.

At the same time, in order to leverage their assets, the banks make active use of liability management techniques so as to modify the liability structure of their balance sheet while expanding the volume of deposits obtained from customers. This can be done in two ways: *reserve management* and *financial innovations*. In the first case, banks seek to induce their customers to apply their resources in low-reserve absorption liabilities, e.g. by managing time deposit interest rates and in other indirect ways that work to redirect customers'

preferences (publicity, bonuses, prizes to customers, etc.). In this way they have more funds available to lend. In the second case, banks try to adopt a more aggressive strategy to leverage funds by exploiting new products and services (or existing products in new ways), seeking to attract new funds so as to enhance their ability to respond to an increase in the demand for credit. In periods when the business prospects are good, financial innovations emerge as a result not only of the financial institutions' efforts to bypass monetary authority restrictions, but also of the endeavour to raise funds from their customers to finance their assets.

The increase in the degree of leverage leads banks to seek new ways to borrow funds so that they can respond rapidly to an increase in the demand for credit and take advantage of opportunities for profit during periods of greater business optimism. Thus, as a result of the strategy of expanding their portfolio, banks boost their leverage, thereby increasing the use of external funds to acquire assets. In fact, greater leverage and a wider asset-liability gap constitute a riskier position, once feared by banks but now part and parcel of bank strategy. Even the more conservative banks, driven by competition and lower perceived risk, need to expand their lending if they do not want to lose their share of the market.[3] The leverage factor affects the volume of a bank's funds directly, but at the same time increases the fragility of its balance sheet. Therefore, liability management techniques and financial innovations play a crucial role in banking strategy during the growth trend of the business cycle: they can reduce the requirement for reserves and also expand the volume of external funds to increase loan leverage.

While the banks play a crucial role in accommodating the firms' credit demand in the upturn of the business cycle, a darker role awaits them during the downturn, amplifying the incipient crisis. We now see them adopting a defensive strategy leading to credit rationing, which can balk debt rollover for the non-financial firms. When the crisis begins, uncertainty is high (the agents' state of expectation dete-

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[3] According to Kregel (1997, p. 545), "the decision to lend would in this case be based primarily on convention or average opinion [...], which means by reference to the types of projects other banks are financing [...]. Thus, over time, bankers will be lending to borrowers they previously would have refused (or would have lent only at higher margins of safety), and they will be concentrating lending to projects in particular areas simply because everyone else is doing so".

riorates), and the banks' expectations for the future grow bleak. The flows of expected yields are reduced as the financial institutions expect a decrease in returns on their loans due to declining business profits. In this context the banks will re-rate customer risks – generally upwards. As the perceived risks grow and are incorporated into the risk premium, higher interest rates increase the cost to firms of refinancing their loans, just when the need is most pressing. The banking system as a whole, seeking to recover its loans, refuses to rollover the major part of the firms' debts, and the resulting increase in bad loan figures shows banks that the time has come to ration credit. Consequently, bad loans snowball at the macroeconomic level.

Financial institutions generally express their preference for greater liquidity by orienting their portfolios to less profitable but more liquid assets. Credit supply thus tends to decline, while the banks are likely to reduce the average term of their assets and adopt a more liquid position by holding surplus reserves and/or purchasing highly liquid assets, such as government securities. They will also cut down the percentage share of advances to customers in their portfolio, and longer-term loans in particular. At the same time bank leverage also decreases, because net worth also increases in percentage terms, expressing the banks' greater caution under adverse economic conditions. Broadly speaking, as the business and economic outlook clouds and perceived risk grows, banks seek to avoid mismatching assets and liabilities, thereby reducing their exposure to banking risks. At the same time they tend to become more cautious in supplying loans and ask for greater collateral in this sort of operation.

In other words, as expectations grow bleaker, the banks tend to adopt more conservative financial postures. The growing perceived risk whets in the banks' liquidity preference, which has serious impact on the structure of their portfolios. Thus, as the banks prefer liquidity over greater profitability, they tend to choose more liquid and less risky assets. Summing up, banks with liquidity preference cannot accommodate demand for credit passively in case liquidity premiums increase *vis-à-vis* expected monetary returns. In these circumstances, the possibility of economic growth is limited by restraints in financing.

3. Brazilian economic growth and public debt: some macroeconomic constraints

The period following implementation of the stabilisation plan known as the Real Plan – that is, from July 1994 onwards – was striking for a remarkable reduction in inflation, even after the major devaluation of January 1999. After two years of economic growth (1994-95) resulting from the initial effects of this stabilisation plan based on an exchange rate anchor,[4] GDP evolution disappointed previous expectations of sustainable economic growth after price stabilisation. Furthermore, the trend took a 'stop-go' pattern (Table 1).

TABLE 1

BRAZIL, GDP AND PRICES

Year	GDP growth	Inflation rate*
1994	5.85	2240.17
1995	4.22	77.55
1996	2.66	17.41
1997	3.27	8.25
1998	0.13	4.85
1999	0.81	4.59
2000	4.36	8.03
2001	1.42	7.40
2002	1.52	8.47

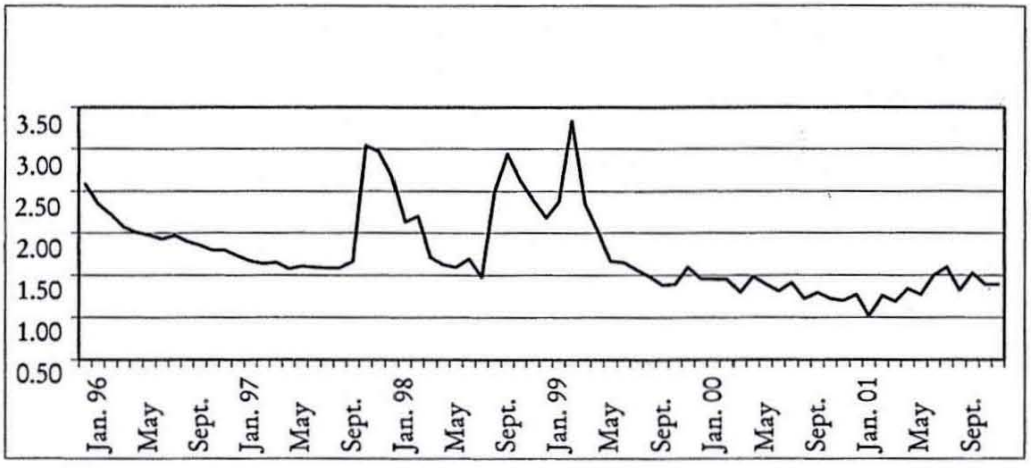
* Rate of change of implicit deflator.
Source: Central Bank of Brazil, *Monthly Bulletin*.

[4] The Real Plan was conceived on the same basis as the stabilization programs with exchange anchor implemented in Latin America since the late 1980s, using a fixed or semi-fixed rate of exchange in combination with more open trade policy as a price anchor. It differed from Argentina's Convertibility Plan by adopting a more flexible exchange anchor; that is, a typical currency board system, rather than pegging the domestic currency at one-to-one parity with the US dollar. At the launch of the Brazilian program, in July 1994, the government's commitment was to maintain an exchange rate ceiling of one-to-one parity with the dollar. Moreover, the relationship between changes in monetary base and foreign reserve movements was not explicitly stated, allowing some discretionary leeway. After the effects of the Mexican crisis, the exchange rate policy was reviewed and, in a context of a crawling exchange rate band, the nominal rate began to undergo gradual devaluation. In early 1999, however, after six months of speculative pressure, the real was devalued and, some days later, the Brazilian government adopted a floating exchange rate. For a general analysis of the origins and development of the Real Plan, see Ferrari-Filho and Paula (2003).

In fact, the Brazilian economy has suffered the impact of a succession of crises: Mexico in 1995, Asian countries in 1997, Russia in 1998, its own crisis in late 1998 and early 1999[5] and, more recently, crises in Argentina since late 2001. A wide range of factors have contributed to shaping a very unstable macroeconomic context: the perception of marked external vulnerability deriving from the need to finance high balance of payments current account deficits; semi-stagnation in the economy; the central bank's adoption of very high short-term interest rates and the consequent growth in public debt. Brazil's current macroeconomic constraints stem mainly from the period when an exchange rate anchor was adopted in a context of trade and capital account liberalisation that had generated a notable degree of external fragility for the economy and consequently some serious macroeconomic imbalances (for instance, high foreign debt, rapidly growing internal public debt, and so on). Private sector expectations have dropped under the impacts of various external shocks, the weak performance of the Brazilian economy, and the very high rates of interest.

FIGURE 1

OVERNIGHT RATE (Selic)
(Rates of interest are monthly)



Source: Central Bank of Brazil (www.bcb.org.br).

The 1999 switch from an exchange anchor to a floating exchange rate regime plus an inflation target regime brought no significant impro-

[5] See Paula and Alves (2000) and Saad-Filho and Morais (2002) for an analysis of the 1998-99 Brazilian currency crisis.

vement in the macroeconomic variables. One might have expected that adopting a floating exchange regime would ease down the interest rate more quickly in Brazil. Although the rate of interest did decline – after a period when the overnight rate was hiked sky-high (to more than 40% p.a.) under the effect of the Asian crisis until the devaluation of the real in January 1999 – it picked up again during 2001 (Figure 1), in view of the turbulence on international markets (the Argentina crisis, the effects of 11 September 2001, etc.).

Brazil's very high rates of interest are the result of high country risk[6] (due to marked external vulnerability and the risk of fiscal insolvency) and of adopting an inflation-targeted regime[7] in a context of various macroeconomic constraints and a high level of internal debt. High interest rates have had two effects: *i*) they have constrained economic growth, through the price of credit (loan rates) and entrepreneurs' negative expectations; and *ii*) they have increased public debt, which is formed mainly by indexed bonds or short-term prefixed bonds. Indeed, the strong demand for hedges against exchange devaluation and interest rate changes in turbulent periods has influenced Brazil's internal public debt. The Brazilian government has been obliged to offer exchange rate and interest rate hedges to buyers of securities who charge high risk premiums to roll over public debt.[8] As a result, since the end of 1998, more than 50% of the federal domestic securities have been indexed to the overnight rate, while more than 20% have been indexed to foreign exchange (Table 2). In addition, the

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[6] Bresser-Pereira and Nakano (2002) suggest that the causality between interest rate and country-risk may be inverse: since short-term interest rates have been very high, foreign creditors believe that country-risk is high. According to the authors, the rate of interest is high in Brazil because it serves multiple functions: to achieve inflation targets, to limit exchange devaluation, to attract foreign capital, to roll over public debt, and to reduce trade deficits by curbing domestic demand. See, also, in this connection, Oreiro (2002).

[7] Under the inflation target regime, the Central Bank of Brazil operates monetary policy *only* to keep inflation low and under control, while the levels of output and unemployment are determined on the supply-side of the economy. In other words, the inflation target regime presupposes that there is a separation between the real side and the monetary side of the economy, the well-known 'classical dichotomy'.

[8] According to data from *BBV Banco Weekly Bulletin* (30th August 2002), the percentage share of federal domestic securities in the financial market in June 2002 was: 34.5 held by commercial banks, 33.4 by investment funds and pension funds, 19.1 as reserve requirements, 6.1 held by companies, 5.5 by individuals and others and 1.4 by investment bank.

ratio of federal domestic securities to GDP rose from 29.3% in December 1997 to 52.7% in December 2001 (Figure 2).

TABLE 2

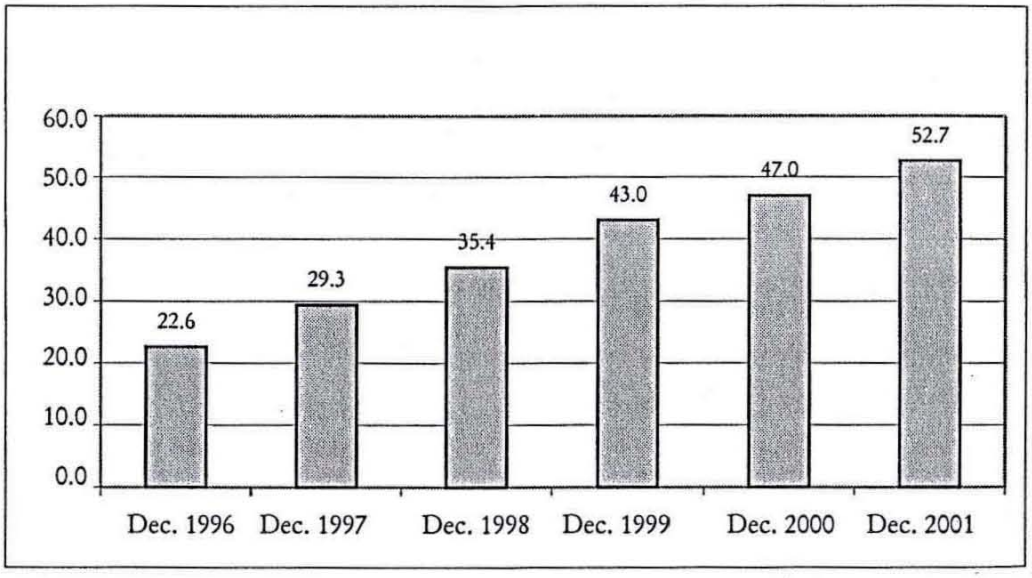
FEDERAL DOMESTIC SECURITIES BY TYPE OF INDEXATION
AS % OF THE TOTAL, 1996-2001

End-of-period	Foreign exchange	Reference rate*	Inflation	Overnight rate	Pre-set	Long-term interest rate	Other	Total
Dec. 1996	9.4	7.9	1.8	18.6	61.0	1.4	-	100.0
Dec. 1997	15.4	8.0	0.3	34.8	40.9	0.6	-	100.0
Dec. 1998	21.0	5.4	0.4	69.1	3.5	0.2	0.5	100.0
Dec. 1999	24.2	3.0	2.4	61.1	9.2	0.1	-	100.0
Dec. 2000	22.3	4.7	5.9	52.2	14.8	0.0	0.0	100.0
June 2001	26.8	5.0	7.1	50.2	10.8	0.0	0.0	100.0
Dec. 2001	28.6	3.8	7.0	52.8	7.8	0.0	0.0	100.0

* Average rate of private securities.
Source: Central Bank of Brazil, *Monthly Bulletin*.

FIGURE 2

FEDERAL DOMESTIC SECURITIES/GDP
(in percentage)



Source: Central Bank of Brazil (www.bcb.gov.br).

Therefore, the behaviour of the domestic public debt in Brazil has proved particularly vulnerable to changes in the interest or exchange rates. Reducing the public debt depends on reducing the re-

lated financial burden by bringing down the interest rate or raising the exchange rate, and/or boosting the primary fiscal surplus. Thus, the Brazilian government has been forced to generate a high primary fiscal surplus (more than 3.5% of GDP[9]), which stands in the way of any anti-cyclical fiscal policy, while the fiscal effort itself is partly neutralised by increases in the rates of interest or exchange. Here there is a dilemma of a kind: given the composition of the public debt, while as lowering the interest rate reduces the financial cost of debt tied to the overnight rate, it can at the same time have a negative impact on debt tied to the dollar by depreciating the exchange rate.

4. Banking behaviour after the end of the Real Plan[10]

4.1. *Banks' portfolio management*

Banking behaviour in Brazil has been determined by the specific institutional-macroeconomic context of the current phase of the Brazilian economy. Indeed, the macroeconomic environment has shown a decisive influence on such behaviour in the country's recent past, with banks taking advantage of the high interest rate and the conditions under which government manages internal debt. But at the same time, the banks' strategies are determinants of the current phase of the business cycle: asset portfolio allocation has been dominated by short-termism and high liquidity preference, resulting in low credit supply and a high banking spread. Consequently, under severely restrictive macroeconomic conditions, the banks have adopted a conservative financial posture,[11] i.e. a high proportion of government securities in

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[9] Primary fiscal surplus increased from 0.24% of GDP in 1998 to 3.23% in 1999, 3.50% in 2000, and 3.75% in 2001, according to *BBV Banco Weekly Bulletin* (30th August 2002).

[10] We are considering that the Real Plan finished in January 1999 with the shift from an exchange rate anchor to a floating exchange regime followed by the adoption of an inflation-target regime.

[11] The expression 'conservative stance' is used in this paper simply to stress that banks in Brazil have adopted a more short-termist and liquid position that has resulted in low levels of credit. However, it must be recognized that the public debt is one of the best investments available in Brazil: it is profitable, liquid and offers hedging against capital and exchange losses.

their portfolios, low levels of mismatching between assets and liabilities, high provision for bad loans, low leverage levels and a Basle Ratio far above the minimum level determined by the Central Bank of Brazil (see particularly Table 3 and Figure 3). In other words, the banks' strategies have been influenced by their high liquidity preference determined by the period of macroeconomic instability and the specificities of the Brazilian institutional environment. Compared with the previous period (1996-98), there was no significant change in banking behaviour in Brazil between 1996-98 and 1998-2001 (Paula, Alves and Marques 2001). One of the consequences of this financial posture is the high banking spread, which obstructs the growth of credit – and consequently better prospects for economic growth – in Brazil.[12]

TABLE 3

BANKING LEVERAGE AND PROVISION FOR LOAN LOSSES, 1998-2001 (%)

End-of-period	Leverage (total assets/net worth)				Leverage (total loans/net worth)				Provision for loan losses [a]			
	DP	FE	FB	Total	DP	FE	FB	Total	DP	FE	FB	Total
June 1998	11.09	12.63	13.68	12.85	2.93	2.93	4.76	3.51	10.76	16.34	21.05	11.06
Dec. 1998 [b]	10.07	11.2	15.73	11.47	2.84	3.18	5.64	3.39	17.06	14.85	19.98	14.91
June 1999	9.91	10.22	15.91	11.15	2.62	2.50	5.44	3.11	9.09	7.37	12.13	8.94
Dec. 1999	9.09	9.78	15.09	10.65	2.64	2.66	5.01	3.08	13.45	6.26	12.24	10.12
June 2000	9.41	11.19	15.60	11.21	2.81	2.91	5.22	3.31	11.81	4.53	5.54	7.83
Dec. 2000	10.36	9.71	15.99	11.27	3.20	3.01	5.46	3.59	12.22	5.12	10.87	9.32
June 2001 [c]	9.68	11.05	14.54	11.15	3.37	3.40	4.13	3.36	10.19	6.36	18.68	11,02
Dec. 2001	9.17	9.92	15.34	10.89	3.24	2.89	3.87	3.23	13.22	11.36	13.48	11.57

[a] Loan losses expenditures/total expenditures.
[b] Data exclude ABN-Amro because of the incorporation of Banco Real.
[c] Data exclude Santander because of the incorporation of Banespa.

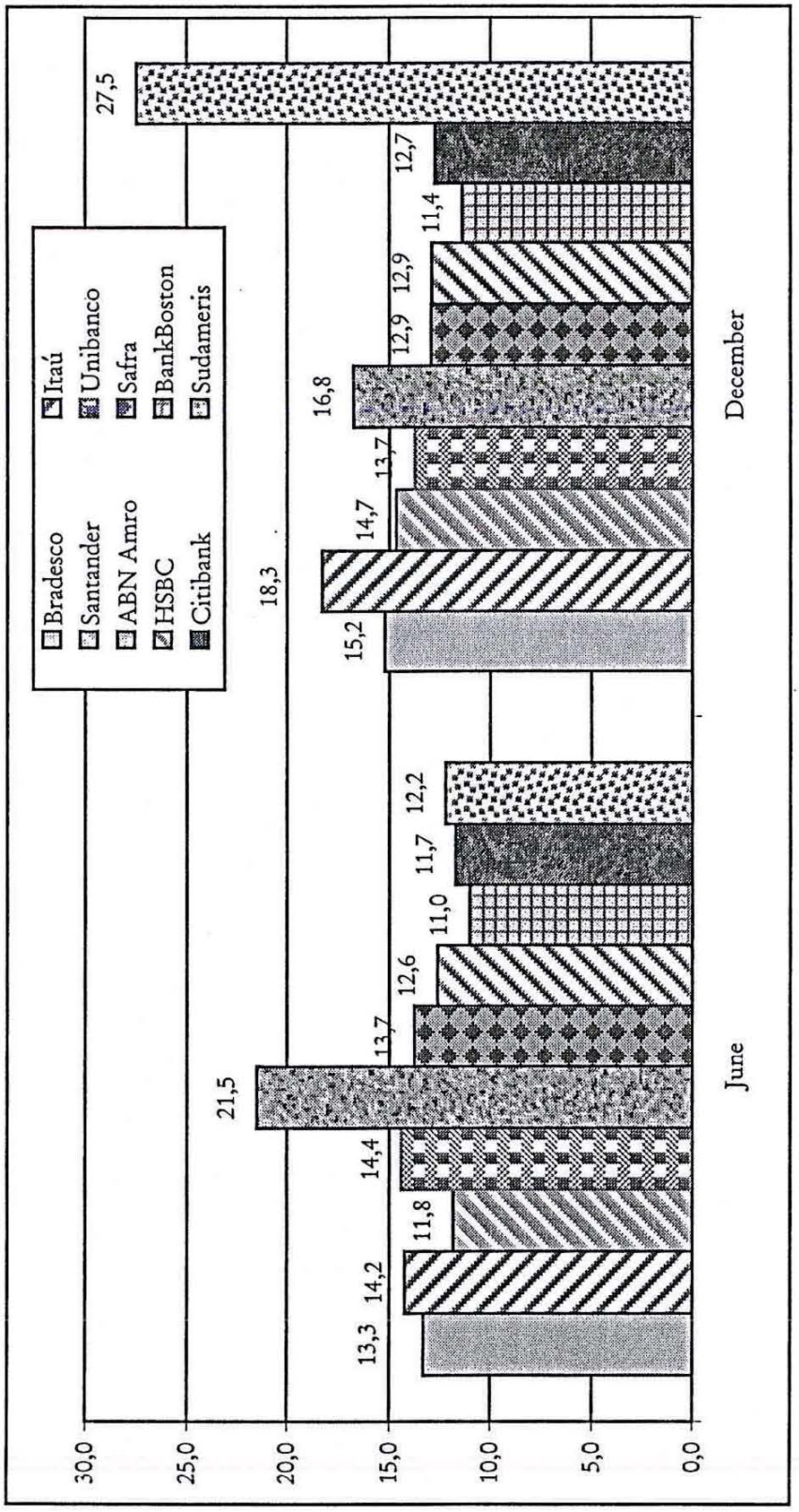
Legenda: DP: 4 major domestic private banks (Bradesco, Itaú, Unibanco and Safra); FE: 6 major foreign banks (Santander, ABN-Amro, BankBoston, HSBC, Citibank and Sudameris); FB: 3 major federal state-owned banks (Banco do Brasil, CEF and BNDES); Total: includes all financial conglomerates, public and private.

Source: Authors' elaboration with data extracted from the financial conglomerations in www.bcb.gov.br.

[12] For more on this matter see Section 4.2.

FIGURE 3

BASLE RATIO, 2001



Source: Central Bank of Brazil (www.bcb.gov.br).

This strategy has not, however, resulted in low profitability. Indeed, as pointed out above, the institutional-macroeconomic context has favoured banking performance in Brazil, the banks reaping advantages from the context of macroeconomic instability and fast growth in public debt whose structure has satisfied the financial institutions' needs for exchange and interest rate hedging. Thus, they have been able to obtain rich revenues with ample spread in loans and government securities.

One might expect the recent entry of foreign banks in Brazil to change the behaviour of the banking sector[13] by causing growth in loan operations, lower bank service fees – including interest rates on loans in particular – a reduction in net interest margins, etc., all as a result of increased competition.[14] As we will see below these changes have yet to come about. In fact, the evidence shows the foreign banks behaving even more conservatively than the domestic private banks, at least in the recent past.[15]

Some data[16] for the period 1998-2001 show a number of general features of bank behaviour in Brazil:

a) overall, banking leverage (both credit and asset size) has been low in all segments of the banking sector, independent of ownership (domestic private banks, foreign banks and federal state-owned banks), although it has proved higher in the federal public banks (Table 3). The leverage ratio expresses the banks' ability to leverage

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[13] The principal foreign acquisitions, in terms of size, were the purchase of Bamerindus by HSBC, which was paradigmatic since it embraced for the first time a big domestic retail bank, Excel/Econômico by BBVA, América do Sul by Sudameris, Banco Noroeste by Santander, Banco Real by ABN-Amro and Banespa by BSCH. In terms of market share, the banks controlled by foreign financial groups have raised their stake from 7.2% in 1994 and 12.8% in 1997 to 27.4% in 2000 of the total banking sector assets in just six years (Paula 2002, Table 6.2). According to Correa (2002, p. 11), the percentage share of foreign banks in total banking sector assets in Argentina was 48.6 in 1999, 80.0 in Mexico in 2001, 27.4 in Brazil in 2000.

[14] Claessens, Demirguc-Kunt and Huizinga (1998) found some evidence that foreign banks entering domestic markets cut both the average profitability and operational expenses of the domestic banks, but have no significant effect on net interest margins and provision for loan losses. The decrease in profitability is due to the increase in banking competition, while the reduction in operational expenses results from an improvement in the domestic banks' organisational and technical management.

[15] See, in this connection, Carvalho (2002).

[16] The data include only the 13 major financial conglomerates. The 13 major banks accounted for a 77.7% share of the banking market in June 2001 (total assets criteria), according to figures from the Central Bank of Brazil.

assets using third party funds. A lower leverage ratio, *ceteris paribus*, indicates less risk-aversion behaviour by a bank. It should be noted that there is no significant change in the trend in banking leverage in the period, but only a slight tendency for the domestic private banks' leverage to increase in 2000-01. Furthermore, it is worth noting that at least in 2001 the Basle Ratio[17] (as per the Basle Capital Agreement) of the ten major private banks in Brazil was far above the minimum requirement of 11% of capital risk-weighted assets determined by the Central Bank of Brazil (Figure 3). The ratio proves higher for major domestic private banks than for major foreign banks, since most of the big retail banks are domestic. On the other hand, provision for loan losses increased throughout 2001 after a fall in 1999-2000. These expenditures were much greater in the federal banks and domestic private banks than in the foreign banks over the whole period.

b) On the asset side, the banks' loans and securities (plus inter-financial operations) grew slightly in real terms, both being highly correlated (Figure 4). In 2001, however, the banks' total loans decreased while the number of securities operations increased. As a result, no significant change in percentage share of the main balance sheet accounts emerged in 1998-2001,[18] although there was an increase in the proportion of lending operations in 2000-01 in the case of domestic private banks and foreign banks (Table 4). Securities operations – predominantly involving federal domestic securities – represent a significant 35% share in the period, taking on more importance for the foreign banks than for the domestic private banks. The banks have been able to afford risk aversion thanks to the availability of high-yielding, risk-free government securities as an alternative investment to private sector lending.

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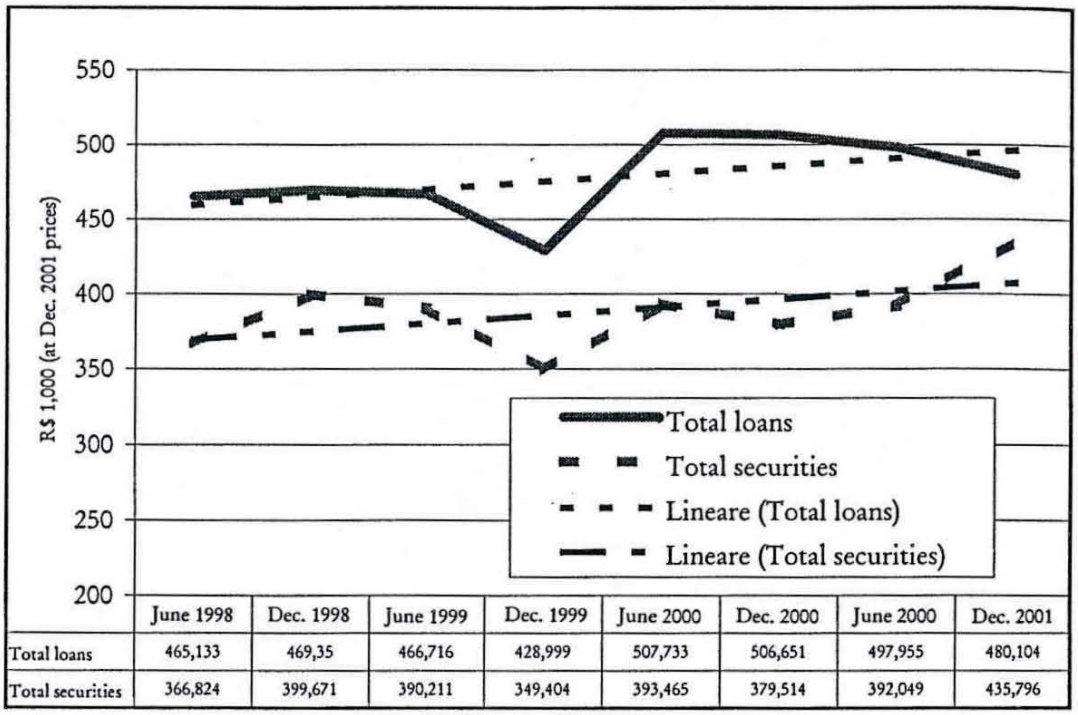
[17] The Basel Accord was incorporated into the Brazilian regulation by some National Monetary Council (Conselho Monetário Nacional) resolutions, such as Resolution 2,784 of 27.11.1997, which establishes the minimum capital requirements ratio weighted by risk of the bank's asset operations in 11%.

[18] Soares (2001) states that the cause of slow credit growth in recent years is the Brazil's adherence to the 1994 Basle Agreement, as this resolution forced banks to take one of the following options: to raise their own capital or to change their portfolio composition towards more risk-free assets, if they aim to increase their assets without raising their capital account. As the Brazilian government has assigned null risk to federal public debt holdings, it follows that banks were 'pushed' towards federal public debt holdings and exempted from lending (see also Vasconcelos and Fucidji 2002, pp. 8-9). However, as already seen, in recent years the Basle Ratio has been above the minimum requirement, at least in the case of the major banks.

c) There is no clear trend in net interest margin behaviour in 1998-2001[19] (Table 5). Net interest margin can be interpreted as one of the indicators of a bank's success in the process of generating profit, measuring the bank's microeconomic efficiency. In Brazil, the foreign banks' net interest margins have proved larger than those of the domestic private banks, while those of the federal state-owned banks are very low. Increased competition due to the recent entry of foreign banks has thus not brought about the decline in net interest margin which one might have expected from the literature (Claessens, Demigurc-Kunt and Huizinga 1998).

FIGURE 4

LOANS AND SECURITIES OVER BANK ASSETS IN BRAZIL



	June 1998	Dec. 1998	June 1999	Dec. 1999	June 2000	Dec. 2000	June 2000	Dec. 2001
Total loans	465,133	469,35	466,716	428,999	507,733	506,651	497,955	480,104
Total securities	366,824	399,671	390,211	349,404	393,465	379,514	392,049	435,796

Source: Central Bank of Brazil (www.bcb.gov.br).

d) The largest percentage shares of bank revenues is represented by loan revenues (around 45%) and security revenues (around 30%) (Table 6). Banks in Brazil rely on interest-earning activity as a major

[19] According to the IMF (2002, p. 64), "net interest margins [in Brazil] as a ratio of bank assets still stand high compared with other Latin American economies. They are even higher when compared to the U.S., Japan and the euro area".

TABLE 4

BANKS PORTFOLIO, PERCENTAGE SHARE, 1998-2001

End-of-period	Total loans on total assets[1]				Total securities on total assets[2]			
	DP	FE	FB	Total	DP	FE	FB	Total
June 1998	39.95	39.51	50.8	41.27	34.64	37.34	20.97	34.26
Dec. 1998[3]	42.27	40.63	43.99	42.89	35.96	37.11	27.14	36.53
June 1999	39.42	42.24	49.91	42.43	35.75	35.09	26.63	35.47
Dec. 1999	41.77	42.18	48.64	42.98	36.37	36.56	24.62	35.01
June 2000	46.72	44.99	49.31	45.94	35.09	36.02	26.41	35.05
Dec. 2000	47.17	43.76	49.73	46.11	35.96	42.96	21.61	34.54
June 2001[4]	49.68	46.44	41.56	44.68	31.51	39.42	26.31	35.17
Dec. 2001	49.86	46.12	35.49	42.85	33.26	43.35	34.18	38.99

[1] Data include other loans besides regular loans.
[2] Data include also inter-financial operations.
[3] Data exclude ABN-Amro because of the incorporation of Banco Real.
[4] Data exclude Santander because of the incorporation of Banespa.
Legenda: DP: 4 major domestic private banks (Bradesco, Itaú, Unibanco and Safra); FE: 6 major foreign banks (Santander, ABN-Amro, BankBoston, HSBC, Citibank and Sudameris); FB: 3 major federal state-owned banks (Banco do Brasil, CEF and BNDES); Total: includes all financial conglomerates, public and private.
Source: Authors' elaboration with data extracted from financial conglomerations in www.bcb.gov.br.

source of income, as interest revenues represent a large share of income despite the relatively small size of loan portfolios. Loan revenues are high as the banking spread has been very ample (see more in Section 4.2). In fact, the loan turnover has proved high with the low average maturity of loans in Brazil.[20] Besides, shorter-term loans have had higher loan rates overall, which has assured very high revenues to banks, although there has been no significant increase in the banks' loan operations, in either absolute or relative terms. Security revenues have proved more important for the foreign banks than for domestic private and federal banks. There is a tendency towards growth in fee revenues, which hold more importance for the private domestic banks than for any other segment due to the greater diversification of their business (they are generally large universal retail banks[21]). By interna-

[20] According to data from the Central Bank of Brazil (2001, p. 13), although the average maturity of company loans has increased from 76 days in June 2000 to 98 days in October 2001, it is still very low.

[21] At end-2000, the ranking of banks in Brazil (total assets criteria) was as follows: 1) Banco do Brasil (state-owned bank); 2) Caixa Econômica Federal (state-owned bank); 3) Bradesco (domestic private bank); 4) Itaú (domestic private bank); 5) Santander (foreign bank), including Banespa; 6) Unibanco (domestic private bank); 7)

tional standards, however, their relative share of fee revenues is still low in Brazil, probably due to the fact that interest-earning activities are still the major source of income for Brazilian banks.

The high percentage share of securities (predominantly federal domestic securities) in total assets, the low average maturity of loans and the low banking leverage warrant the conclusion that bank portfolios have not changed significantly in Brazil in recent years. In fact, the banks turned to short-termist behaviour in 1998-2001. What is new in the Brazilian experience is that this strategy has been very profitable for banks (Table 5). High banking profitability expresses both high interest rates and large bank spreads during the period analysed. This can only be understood if one considers the specific feature of the current institutional-macroeconomic context in Brazil, as seen in the previous section. In other words, given the banks' liquidity preference approach described in Section 3, the Brazilian banking sector has not faced the liquidity-versus-profitability trade-off, the institutional-macroeconomic context affording an environment with scope for the banks to combine liquidity and profitability.

Profitability has proved higher for the private banks than for the state-owned banks (Table 5). Domestic private bank profitability, determined mainly by the evolution of the profitability indexes of the three major domestic private banks (Bradesco, Itaú and Unibanco), proved greater and more stable than foreign bank profitability during the period analysed. Indeed, these banks have reacted positively to the foreign presence, improving their efficiency, obtaining revenue economies through cross-selling activities and at the same time taking active part in the recent wave of bank mergers and takeovers in Brazil.[22] That the three largest domestic private banks have performed well and reacted positively to the entry of foreign banks may perhaps be put down to

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ABN-Amro Real (foreign bank); 8) Safra (domestic private bank); 9) BankBoston (foreign bank); 10) HSBC (foreign bank). In 2000, the four major private domestic banks held 27.6% of total Brazilian banking sector assets while the four major foreign banks had a 15.7% market share (Paula 2002, ch. 6).

[22] The three major domestic private banks – Bradesco, Itaú and Unibanco – made some important acquisitions, such as Nacional and Bandeirantes by Unibanco, BCN/Credireal and Mercantil de São Paulo by Bradesco, Banerj and BBA by Itaú. The latter bank in particular has participated substantially in acquisitions of state banks, such as Banestado (Parana), Banerj (Rio) Bemge (Minas Gerais) and BEG (Goias).

TABLE 5

BANKS PROFITABILITY AND NET INTEREST MARGIN

End-of-period	Return on assets				Return on equity				Net interest margin			
	DP	FE	FB	Total	DP	FE	FB	Total	DP	FE	FB	Total
June 1998	0.7	0.5	0.4	0.0	7.9	6.3	5.8	0.8	2.5	3.1	1.1	1.7
Dec. 1998[1]	1.0	0.4	0.1	0.4	11.0	4.7	1.9	4.8	2.6	2.8	0.9	1.9
June 1999	1.1	1.1	0.2	1.0	11.4	11.3	3.5	11.2	2.3	4.9	0.2	2.2
Dec. 1999	1.1	0.3	0.3	0.5	10.2	3.5	5.2	5.7	2.6	3.4	1.6	2.4
June 2000	1.2	0.3	0.2	0.6	11.3	4.0	4.4	6.7	2.5	2.2	1.4	2.1
Dec. 2000	1.0	0.5	0.3	0.3	10.5	5.2	5.2	3.9	2.2	0.5	1.3	1.8
June 2001[2]	1.2	0.9	-	-	12.1	10.8	-	-	2.1	3.2	0.1	1.6
Dec. 2001	1.3	0.9	0.2	0.7	12.2	9.8	4.3	7.9	2.8	3.3	1.3	2.3

[1] Data exclude ABN-Amro because of the incorporation of Banco Real.
[2] Data exclude Santander because of the incorporation of Banespa.

Legenda: DP: 4 major domestic private banks (Bradesco, Itaú, Unibanco and Safra); FE: 6 major foreign banks (Santander, ABN-Amro, BankBoston, HSBC, Citibank and Sudameris); FB: 3 major federal state-owned banks (Banco do Brasil, CEF and BNDES); Total: includes all financial conglomerates, public and private.

Source: Authors' elaboration with data extracted from the financial conglomerations in Central Bank of Brazil (www.bcb.gov.br).

TABLE 6

PERCENTAGE SHARE OF SOME BANKS' REVENUES,[1] 1998-2001

End-of-period	Loan revenues				Security revenues[2]				Fee revenues			
	DP	FE	FB	Total	DP	FE	FB	Total	DP	FE	FB	Total
June 1998	47.54	45.75	49.83	45.34	25.37	30.13	20.70	29.87	11.53	11.87	8.17	8.35
Dec. 1998[3]	46.85	45.14	48.75	45.92	24.78	33.92	23.89	30.07	12.33	8.77	7.90	8.47
June 1999	49.04	41.01	49.10	43.82	19.13	29.54	23.47	29.33	8.07	5.29	5.42	5.34
Dec. 1999	46.59	45.25	48.24	45.73	20.40	29.02	23.97	27.16	14.09	9.65	9.17	9.39
June 2000	46.07	42.82	46.01	44.64	22.62	30.64	23.73	28.70	14.43	9.82	11.61	10.63
Dec. 2000	44.14	36.00	50.36	44.86	35.96	42.96	21.61	34.54	14.16	7.62	10.43	9.90
June 2001[4]	47.07	43.05	49.76	49.30	19.33	37.70	11.52	26.54	12.52	8.20	9.77	9.61
Dec. 2001	48.86	40.24	35.63	42.85	33.26	43.35	34.18	38.99	12.01	9.12	12.16	9.91

[1] Percentage share on total revenues.
[2] Data include inter-financial operations.
[3] Data exclude ABN-Amro because of the incorporation of Banco Real.
[4] Data exclude Santander because of the incorporation of Banespa.

Legenda: DP: 4 major domestic private banks (Bradesco, Itaú, Unibanco and Safra); FE: 6 major foreign banks (Santander, ABN-Amro, BankBoston, HSBC, Citibank and Sudameris); FB: 3 major federal state-owned banks (Banco do Brasil, CEF and BNDES); Total: includes all financial conglomerates, public and private.

Source: Authors' elaboration with data extracted from financial conglomerates in Central Bank of Brazil (www.bcb.gov.br).

> "cultural differences (local banks are more adapted to the peculiarities of the Brazilian banking market), and the high level of development and sophistication of the Brazilian banking sector as a result of the need to adapt to high inflation [...]. Brazilian banks learned to extract advantages from the context of macroeconomic instability, and this was possible due to the need to finance the public debt in Brazil, by mixing short-term issues with high rates of interest" (Paula 2002, p. 107).

Although bank behaviour in Brazil has been influenced by the macroeconomic context, this behaviour has been a further factor causing instability, as shown by the high rates charged by banks for loans. This is analysed in greater detail in the next section.

4.2. *Determinants of banking spreads in Brazil*

The Brazilian financial sector is large and bank-dominated,[23] but the extent of intermediation – the ratio of intermediate financial flows resulting from the collection of deposits to the amount of credit actually extended – is small. According to the IMF (2002), the Brazilian banking sector looks very large when compared to those in other advanced Latin American economies (Mexico and Argentina), while at the same time it provides about the same proportion of loans as banks in these countries. On the other hand, in terms of asset size to GDP, the Brazilian banking sector is comparable to that of the US, but provides only half the loans in proportion to GDP (Table 7). Although Brazil has one of the most sophisticated banking sectors in the world in terms of advanced technology, the ratio of total credit-to-GDP oscillated between 25-35% in 1990-2001, which is very low compared to the developed countries. Given the success of Brazil's price stabilization plan, the volume of loans might have been expected to increase after July 1994; low inflation would be a source of economic stability. However, although the ratio of total credit-to-GDP increased in 1992-95, it has since decreased to reach the same level as during the period of high inflation (Figure 5). In fact, more recently this ratio has fallen as low as at the beginning of the 1990s. As a result, the low level of credit in Brazil is one of the factors that has contributed to the economy's below-potential growth.

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[23] According to Soares (2001, p. 15), banking loans during 1998-99 were equivalent to 92% of total loans by the Brazilian financial system.

TABLE 7

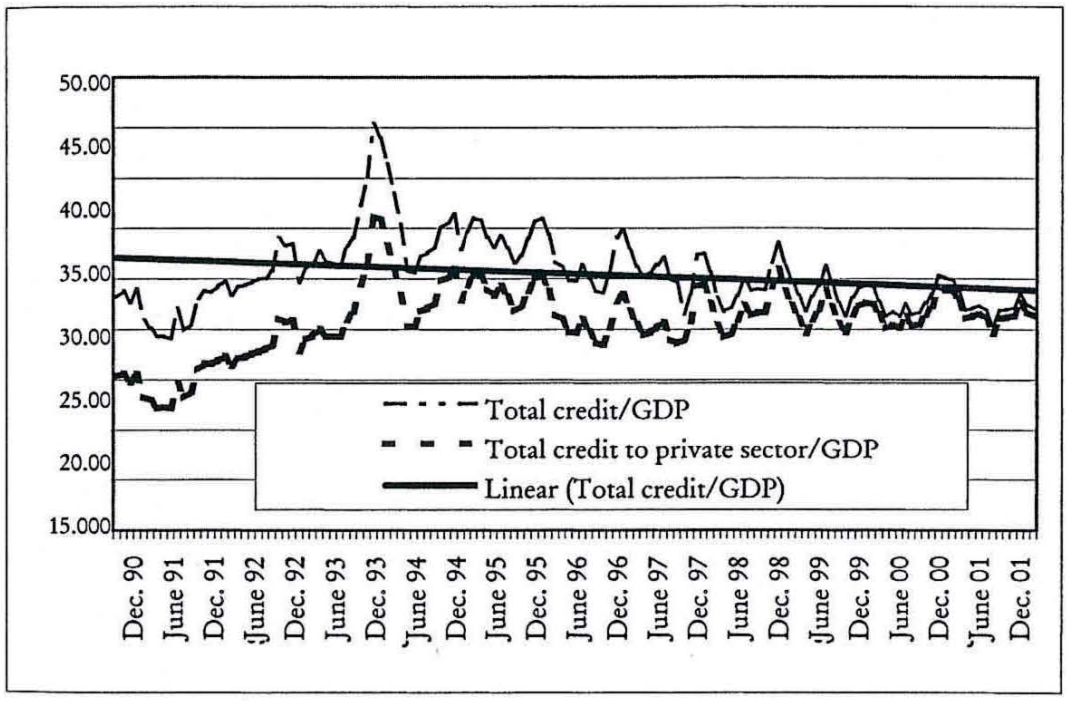
THE BANKING SYSTEM IN VARIOUS COUNTRIES, 2000
(percentage of GDP)

Country/Area	Banking system[1]		
	Deposits	Loans	Assets[4]
Brazil	29.3	24.8[2]	77.1
Argentina	27.8	21.4	57.4
Mexico	18.3	21.6	25.0
Chile	54.9	70.0	98.4
US	42.6	45.3	77.3
Japan[3]	94.8	84.7	142.0
Euro area	78.9	103.7	258.3

[1] Only deposit-taking, universal banks are considered.
[2] Data include commercial leasing.
[3] Bank data for Japan are as of March 2001.
[4] Data include total assets in the banks' balance sheet.
Sources IMF (2002, p. 62), with data from Central Bank of Brazil, Federal Reserve Bank, Bank of Japan and ECB.

FIGURE 5

TOTAL CREDIT OVER GDP, BRAZIL, DECEMBER 1990/APRIL 2002
(in percentage)



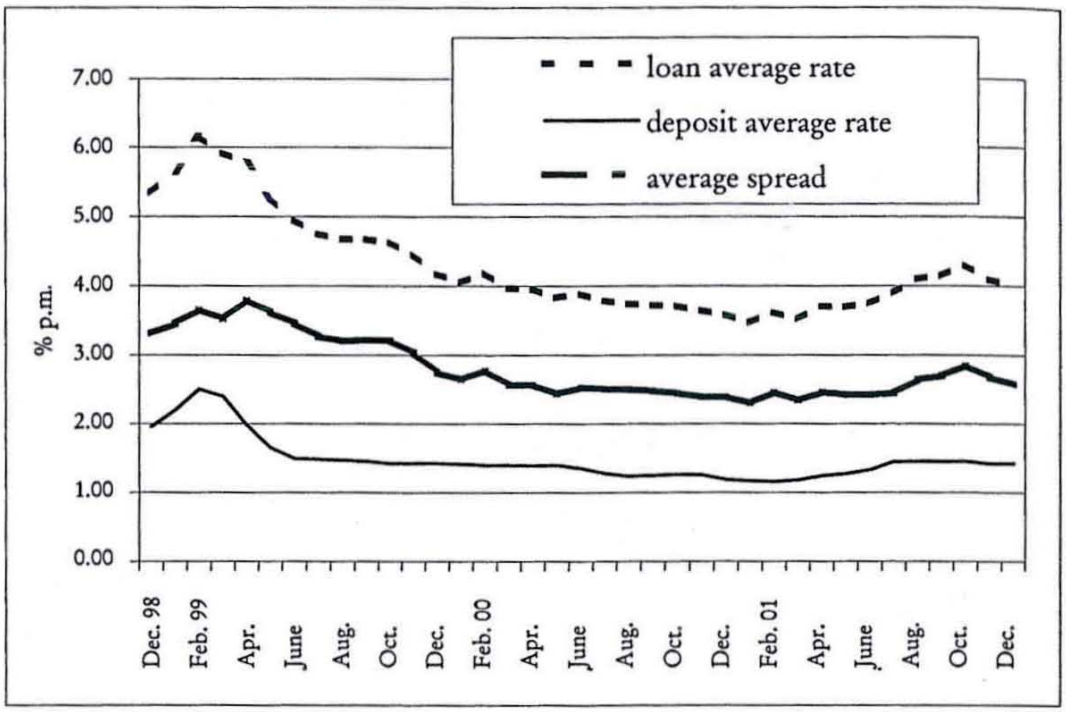
Source: Central Bank of Brazil.

One of the main factors preventing increased credit in Brazil lies in the very large banking spreads, which explain, at least partly, the high profitability of the big retail banks. Although the banking spread has declined in recent years in Brazil, it is still very substantial by

international standards: in 2000, the annual banking spread was 38.72% in Brazil, while it was 11.96% in Mexico, 2.75% in Argentina, 5.64% in Chile, 2.77% in the US, and 3.15% in the euro area (Afanasieff, Lhacer and Nakane 2001, Table 7, p. 7).

FIGURE 6

AVERAGE BANKING SPREAD



Source: Central Bank of Brazil.

Looking at 1999-2001, the banking spreads can be seen first to increase in Brazil at the beginning of 1999 – a period marked by the change in the exchange rate regime (Figure 6) –, after which they showed a steady decline from 3.58% in February 1999 to 2.46% in February 2001, due to the more stable international environment and the falling overnight rate, in addition to a set of central bank measures designed to reduce banking spreads.[24] This movement was interrupted

[24] These measures included a gradual reduction of reserve requirements – from 75% to 45% for demand deposits and from 20% to 0 for time deposits; new loan loss provision rules; cuts in financial market taxation from 6% to 1.5%; institutional promotion of the Credit Risk Central; instruments to reduce and transfer credit risks (credit derivatives) and increasing flexibility in provision of client information to other banks.

at the start of 2001 by international turbulence, which affected the Brazilian economy because of its great external vulnerability, and indeed by the energy crisis in Brazil. Loan rates and banking spreads rose quickly, resulting in spreads that came close to the same levels as in February 2000 in the space of a mere six months.

Indeed, one of the expected results of the change in the exchange rate regime from an exchange rate band system to a more flexible regime is a smaller variation in loan rates, as in fact occurred after January 1999 (Figure 7). Overall, higher loan rates have been charged on shorter-term loan operations: in October 2001 the average term of personal overdrafts was 20 days, company overdrafts 24 days, working capital 153 days, and consumer credit 190 days (Central Bank of Brazil 2001, p. 13). Although in general terms the movement of loan rates tends to follow that of the overnight rate, which is the basic rate of interest, the behaviour of the various loan rates has at times shown some differences. In particular, the highest rates were on personal overdraft, and they declined less than the other loan rates after January 1999. This kind of credit operation is by far the most profitable for banks.

According to one of the latest evaluations of the determinants of banking spreads made by the Central Bank of Brazil (2001), banking spreads in August 2001 could be broken down as follows: 37.4% net profit margin, 19.2% administrative expenditures, 19.2% direct taxes, 15.8% loan loss-related expenditures and 8.3% indirect taxes. The breakdown is almost the same in August 1999, indicating some stability in the percentage share of the factors determining banking spreads in the recent past (Table 8). After a sharp fall in the first quarter of 1999, loan loss-related expenditures gradually increased through 2000-01. As noted by Afanasieff, Lhacer and Nakane (2001), on the evidence of the literature loan quality as the major factor behind bank interest spreads is more outstanding in Brazil than in the other Latin American countries. On the other hand, Central Bank of Brazil analysis has the net profit margin as the main component of banking spreads. The net profit margin represented a high percentage of the banking spread in 1999-2001, which seems to show that the effects of increased competition due to foreign bank entry had no effect on the Brazilian banking sector, at least until the more recent past. This behaviour can be explained partly by the 'easy' revenues obtained by both domestic

and foreign banks in a macroeconomic context that favoured the adoption of more conservative postures.

The significance of the net profit margin in determining the banking spread in Brazil is the result of three factors: *i*) as macroeconomic uncertainty has grown in recent years, the banks have sought – defensively – to offset the greater perceived risk by increasing the banking spread, thus improving their net profit margins; *ii*) as the banks have risk-free government securities as an alternative investment to private sector lending, they require very high returns to warrant offering loans, because of the increased opportunity costs of non-bearing reserves; and *iii*) as the banking market has become increasingly concentrated,[25] the available evidence indicates that the Brazilian banking market is structured non-competitively,[26] which may be conducive to higher interest spreads.

TABLE 8

BANKING SPREAD IN BRAZIL, 1999-2001

	February 1999		August 1999		February 2000		August 2000		February 2001		August 2001	
	% p.m.	Share	% p.m.	Share	% p.m.	Share	% p.m.	Share	% p.m.	Share	% p.m.	Share
Average spread	3.58	100.0	3.21	100.0	2.73	100.0	2.52	100.0	2.46	100.0	2.65	100.0
Net profit margin	1.03	28.8	1.18	36.8	1.08	39.6	0.99	39.3	0.96	39.0	0.99	37.4
Direct taxes	0.51	14.2	0.68	21.2	0.56	20.5	0.51	20.2	0.49	19.9	0.51	19.2
Indirect taxes	0.41	11.5	0.38	11.8	0.22	8.1	0.22	8.7	0.21	8.5	0.22	8.3
Administrative expenditures	0.79	22.1	0.63	19.6	0.53	19.4	0.46	18.3	0.44	17.9	0.51	19.2
Loan loss-related expenditures	0.84	23.5	0.35	10.9	0.34	12.5	0.34	13.5	0.36	14.6	0.42	15.8

Source: Central Bank of Brazil (2001, p. 8).

An econometric study by Koyama and Nakane (2001) disaggregated the banking spread into the following factors in order to estimate an auto-regressive vector (VAR): *i*) basic interest rate (Selic over-

[25] In June 2001, the top 10 banks in Brazil held 70.3% of total banking sector assets, 76.6% of total deposits and 70.2% of total credit (IMF 2002, p. 63).

[26] Nakane (2001), using aggregate time series during the 1994-98 period, found evidence of a non-competitive market structure in the banking system.

night rate), which is used as a proxy for the banks' gross mark-up, since the time deposit and overnight rates show similar behaviour; *ii*) one measure of country-risk (C-Bond return over American Treasury securities return with the same maturity); *iii*) administrative expenditures; indirect taxes (IOF, PIS, COFINS and CPMF); and *iv*) direct taxes. The authors tested the existence of co-integration between these variables and found the following results for September 2001: risk component (45%), factors relating to administrative expenditures (20%), indirect taxes (19%) and overnight rate (16%). In this analysis of banking spreads, the percentage represented by risk-variables was greater than the percentage share of loan-loss related expenditures in the banking spread analysis performed by the Central Bank of Brazil. This can be explained by its forward-looking nature, given that risk-variables relate to expectations for future scenarios, while loan loss-related expenditures refer to losses from past loans and the analysis is thus retrospective. As already pointed out, 2001 was marked by uncertainty over the Brazilian economy. For this reason, the risk component in the banking spread might be expected to have increased throughout 2001. It did, in fact, become even more significant during 2001, increasing from 39.9% in February to 44.8% in September as a result of the worsening macroeconomic context in Brazil, which generated uncertainties affecting the level of banking spreads. The importance of the overnight rate in determining spreads can be understood differently: since it is the rate of return on most government securities, it functions as a kind of opportunity cost for bank investments. Banks know that they have the portfolio option to channel their funds into government securities with high liquidity and good profitability. For this reason, if they are to lend – an operation with higher risk than government securities – the banks require very high returns to offset the higher risk-premium on credit operations.

The findings of Koyama and Nakane (2001) are in line with the findings of Afanasieff, Lhacer and Nakane (2001). These latter authors used panel data techniques to discover the main determinants of bank spreads in Brazil, finding that macroeconomic variables are the most significant factors accounting for the behaviour of the bank interest spread: the results of the regression show that the spread increased with rises in either the basic interest rate or the inflation rate, and decreased when output growth rose. However, the hypothesis that an

oligopoly market structure in Brazil may be conducive to higher interest spreads also merits consideration:

> "if banks behave like local monopolies or oligopolies, incentives to improve efficiency would normally be weak, and the interest rate spread [...] would be large, discouraging higher deposits and lending volumes" (IMF 2002, p. 69).

Indeed, the degree of concentration in the Brazilian banking sector suggests the possibility that non-competitive forces are at work. As mentioned above, ten large banks dominate the market in Brazil: in June 2001 they held a 70.3% share of total assets in the Brazilian banking sector. Although the studies on this particular subject[27] are not conclusive, the findings of a recent study (IMF 2002) shows some evidence that the Brazilian banks behave as an oligopoly, their revenues not being sufficiently sensitive to changes in their costs to suggest they feel the pressure of perfect competition.[28] The study – using aggregate time series during the period 1997-2000 – also shows no clear pattern of increase in competition over the last few years in Brazil.

5. Conclusions

In recent years, the Brazilian economy has followed a course of semi-stagnation. In 1998-2001 the main feature of the economy was its 'stop-go' trend, which resulted from a number of severe macroeconomic constraints – such as marked external vulnerability and problems in managing the domestic public debt – which hindered economic recovery. Brazil is a typical case where, when macroeconomic constraints are strong, credit is rationed, uncertainty is high and the economy cannot recover sustainably. Both companies and financial institutions have their expectations affected negatively by the

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[27] Nakane's (2001) findings refute the hypothesis that the Brazilian banks form a cartel.

[28] However, it is worth noting that "in principle [...], there is no one-to-one relationship between market concentration and the degree of competition" in banking market and that "some of the same forces promoting consolidation in emerging markets, such as increased foreign bank entry, are also likely to foster competition" (IMF 2001, p. 158).

macroeconomic context, and grow pessimistic about the future of the economy. In such circumstances, there is no automatic mechanism to assure the recovery of an economy.

One institutional feature of Brazil's economy is the size and composition of its public debt – predominantly indexed bonds. Indeed, macroeconomic imbalances in Brazil have resulted in increasing the domestic public debt. The financial institutions called for hedges against changes in the interest and exchange rates if they were to buy federal domestic securities. This environment has favoured the adoption of a conservative but profitable stance by the banking sector in Brazil, yielding rich revenues from high-spread short-term credit operations and from government securities. The bank asset portfolios have been dominated by short-term and speculative activities that have kept credit supply low and spreads high, and bank strategies have thus been influenced by a liquidity preference typical of periods of macroeconomic instability. The novelty in the Brazilian case is that the banking sector strategy has been able to combine liquidity with profitability due to its current institutional-macroeconomic specificities. Under these circumstances, the banks have been the main beneficiaries of the economic policy adopted by the Brazilian government in the recent past. Considering the current conditions of public debt management, the Brazilian Treasury has transferred large amounts of income from the state to the banking sector. In other words, in the context of external crisis, the Brazilian federal government has absorbed (almost) all the cost of macroeconomic adjustment in Brazil.

Bank behaviour in Brazil has in fact been conditioned by the macroeconomic context, and in turn this behaviour influences the context, contributing to aggravating the factors in the way of economic recovery since the banks have taken advantage of the unstable macroeconomic environment to raise net interest margins; this has had adverse impacts on the banking spread. One of the main factors obstructing growth in bank credit supply, and consequently the availability of finance in the economy, is the very high banking spreads observed in Brazil. The recent entry of foreign banks in Brazil was expected to sharpen competition and so change banking sector behaviour, with positive effects on credit supply, bank service fees and net interest margins. However, these changes have not occurred. The recent evidence shows that, overall, the foreign banks have adopted an even more conservative stance than the domestic private banks.

Finally, one might expect that, as the Brazilian economy recovers, bad loans should decline and banks open up credit supply. At the same time, administrative expenditures and net interest margins should decline with positive impacts on loan costs to borrowers. However, considering the various turbulences that, due to its marked external vulnerability, so affected Brazil's economy during the 1990s and at the dawn of the 21st century, it is not certain that the economy will rid itself of the 'stop-go' tendency typical of recent years. Changes in banking behaviour and the banking spread in Brazil depend crucially on improvements in the macroeconomic environment. It is thus imperative that a new strategy be found for sustainable economic growth in Brazil.

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