FINANCIAL REGULATION AND MACROECONOMIC STABILITY IN BRAZIL IN THE AFTERMATH OF THE RUSSIAN CRISIS

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1. Introduction

The turbulences that repeatedly hit the international economy in the second half of the 1990s caused much damage to the Brazilian economy. Few months after regaining price stability with the Real Plan (named after the new currency introduced in July 1994), the Mexican crisis of 1994/5 led to a "sudden stop" in the flow of international finance to Latin American countries. Brazil, already suffering from a quickly widening current account deficit, endured a balance of payments crisis that forced the Central Bank to impose a steep rise in interest rates to try to stop capital flight. Rising interest rates combined with the loss of inflation revenues to cause the banking crisis of 1995, which led to the disappearance of three among the ten largest private banks in operation, in parallel with the failure of a large number of medium and small financial institutions.

This was not to be the last crisis of the period. In fact, it was only the first of a series of episodes of varying importance that happened in succession until the exchange crisis of 1999, which led to a change in the regime of macroeconomic policy in the country. The main rules of the policy game adopted then remain in force to this day.

The 2000s were generally more generous to Brazil. Except for the balance of payments crisis of 2002, generated by domestic factors of a mainly political nature, no major turbulence hit the country until the last quarter of 2008, when the international crisis finally arrived to Brazil, though, so far, with comparatively mild effects. In the absence of major external shocks, inadequacies of economic policy, arguably, have revealed themselves mostly in the form of the mediocre rates of economic growth that characterized most of the 2000s when compared not only to other, more successful, emerging economies, such as India and China, but also to the rates of growth reached by Brazil in the past.

Low rates of growth seem to find an immediate cause in the low rates of investment that have been characteristic of the Brazilian economy. The country's economy has endured nearly three decades of low growth and stagnation, between the late 1970s and the early

2000s. While high inflation was the most obvious culprit until 1994, when price stabilization was achieved, the causes of low growth following the Real Plan has been ascribed mostly to overvalued exchange rates and excessively high domestic interest rates. While there is little contention about the exchange rate being overvalued and interest rates being too high, the causes for these phenomena have been the subject of heated debate. Liberal economists tend to explain them by pointing to low propensities to save by the public and by the government. Economists critical of the liberal perspective tend to blame equivocal economic policies and flaws in the policy regime adopted after the exchange crisis of 1999, which prioritized price stability in detriment of economic growth. Some economists, still, blame more microeconomic factors, like the lack of, or inconsistencies in, industrial policies, or excessive degrees of concentration in the financial industry, etc. Be it as it may, there were strong indications that higher (although still much lower than in countries like China or India) rates of growth were beginning to be reached in the last two to three years, but the international crisis seems to have aborted this possibility, at least temporarily. Although the recession in Brazil turned out to be much less threatening than initially expected, productive investment has suffered a steep fall and its perspectives for the immediate future remain very uncertain.

It is not our intention to contribute directly to the latter debate on the causes of low growth. The issue at hand is how far the main characteristics of the behavior of the Brazilian economy since the Russian Crisis of 1998 can be explained by referring to the rules of financial regulation in force in the country. This is an important subject since a peculiar feature of the Brazilian economic performance has been not only the solidity of its financial industry, but also the strength, almost unique in the continent, of its public and private domestic banks, which have dominated the sector. Nevertheless, financial vigor and strength have not translated, so far, into a strong support for economic growth.

In principle, financial regulation should affect the behavior of the macroeconomy of Brazil through two channels: domestic financial regulation, particularly of a prudential nature, might influence the amount and allocation of credit between public and private borrowers and by supplying instruments to be used to hedge financial placements; capital movement regulation has heavily influenced the ways and terms of local

borrowers' access to external sources of finance. The behavior of financial systems, of course, is of interest not only because it shapes the opportunities of action to borrowers, but also because it directly affects systemic safety, against both domestic financial crises and balance of payments crises.

This paper is structured in the following way. Section two, next, will summarize Brazil's macroeconomic performance between the Russian crisis of 1998 and the onset of the 2008 recession, associated to the international crisis. Section three will examine in more detail how the behavior of the Brazilian financial sector contributed to the performance presented in section two, detailing the regulatory strategy adopted in the country and its impacts. Section four will deal in a similar vein with the exchange rate and the regulation pertaining to this area. Section five will conclude with an assessment of the efficacy of the regulatory strategies adopted so far and the perspectives for the future.

2. The Macroeconomic Performance of Brazil: An Overview

The Asian crisis constituted a serious threat to the Real Plan. The new policy regime inaugurated in mid-1994, which relied in an essential way on an exchange rate anchor, resisted still for about a year and a half amidst speculative attacks and high instability caused by the volatility of reserves and of interest rates. When the exchange rate regime was changed at last, uncertainty rose dramatically leading many analysts to predict the return of high inflation, with some impact on the expectations of the public. Nevertheless, the new policy regime implemented during the first semester of 1999 succeeded in stabilizing expectations of inflation. Macroeconomic volatility, however, remained high until 2003, even if it manifested itself in different ways. From 2003 until the last quarter of 2008, when the international crisis changed the picture again, the economy not only stabilized but all evidence pointed to a sustained growth path, although at rates certainly less than spectacular, with low inflation and equilibrium in the balance of payments. Table 1 shows the main macroeconomic indicators for the Brazilian economy in each of the three sub-periods identified here.

Table 1

Period (quarters)	Rate of Growth of GDP (% at annual rates)	Rate of Growth of Investment (% at annual rates)	Rate of Inflation (CPI, % at annual rates)	Trade Balance (US$ billion, at annual rates)	Central Bank Target Interest Rate (Period Average, %)
IV/97-IV/98	-1,0	-5,1	2,0	-7,6	30,8
I/99-II/03	2,1	-3,0	9,3	5,4	20,8
III/03-III/08	5,1	11,4	5,4	38,0	15,8

Sources: Banco Central do Brasil, IBGE, MDIC/SECEX.

i. The Real Plan Under Attack: 1997-1998

The Real Plan was fully successful in its goal of changing the ways prices are set in the Brazilian economy, putting an end to indexation and chronic high inflation. Nevertheless, the maintenance for a prolonged period of over-appreciated exchange rates gave origin to ever-increasing deficits in the current account and to a rapidly-accumulating external debt. When the Asian crises raised risk-aversion in the international financial system, the situation in the Brazilian balance of payments and the indices of external solvency of the country had deteriorated so far that it became a sitting duck when contagion of the crises began to spread.

Brazil first felt the effects of the Asian crisis around September 1997. The country lost US$ 11 billion in reserves in three months (17% of which was lost in the last days of August). The Central Bank reacted by raising the policy interest rate from 19% a.a. to 46% in November. By the beginning of 1998 foreign investors seemed to have recovered their confidence and capital inflows resumed growth, lured by the very high interest rates offered. Reserves peaked at US$ 75 billion by April 1998, allowing the Central Bank to relax somewhat its monetary policy.

International reserves fell again, however, in the following months. The Russian crisis sharply accelerated the fall. Policy interest rates rose again, this time from 19% in August to 40% in September and 42% in October, without any perceivable effect on the wave of bearish speculation against the Brazilian currency. By January 1999, at the peak of the balance of payments crisis, the country's reserves had fallen to US$ 36 billion, half of their previous peak level.

The interest rate shock served as a transmission channel from the international crisis to the real domestic economy. The level of output in the manufacturing sector fell 12% between October 1997 and February 1999. Investment, doubly hit by the rise of interest

rates and by the increase in the level uncertainty that surrounded the future prospects for the Brazilian economy, stagnated until the third quarter of 1998, after which it fell rapidly, accumulating losses of 11% until the third quarter of 1999.

Brazil signed a deal with the IMF in November 1998. The Fund led a syndicate of multilateral and international institutions which conceded a US$ 41 billion loan. The first drawings, to the amount of US$ 9.3 billion, were made in the following month. The loan soothed the market for a while, but by the end of the year the situation deteriorated again. The continuing loss of reserves created an impasse for the government. After a short-lived attempt to amend the existing exchange rate regime, the authorities opted for allowing the exchange rate to float.

ii. Consolidating the New Economic Policy Regime: 1999-2003

A month after the option for floatation, the exchange rate had depreciated in 93%, raising fears that high inflation could be back. To allay these fears, Arminio Fraga, the new chairman of the Central Bank, rapidly negotiated a revision of the agreement with the Fund, and raised the interest rate from 37% to 45%. Financial and exchange markets calmed down progressively, and the exchange rate stabilized around the value of R$1.83 to the dollar (52% above the rate of December 1998).

To consolidate the new regime of exchange rate floatation it was necessary to create an appropriate macroeconomic policy environment. A key element in the new policy architecture was the adoption of a new monetary policy regime, defined by inflation targeting. CMN was given the responsibility to set the target inflation rate for the relevant period and the Central Bank would manage the policy interest rate (known in Brazil as the SELIC rate) accordingly to coordinate inflation expectations of the public. The exchange rate could then freely float to adjust the balance of payments. A third piece was added to the policy architecture, a Fiscal Responsibility Law, designed to generate fiscal surpluses to reduce the stock of public debt outstanding.

The new policy regime worked surprisingly well to reach its goals in a short period of time. Inflation converged to its target in a not so long period. Thus, in 1999, despite the large exchange rate shock, inflation to remained only 0.9% above its target of 8%. In addition, the exchange rate also remained reasonably stable (at levels that were compatible with the external competitiveness of the Brazilian economy), for two years

with almost no intervention by the Central Bank. Under these conditions, the interest rate fell to levels that were considerably lower than they had been in the recent past, even though they remained at very high absolute levels, particularly when the real rates of interest are considered. As a result, the impacts of the changes on the "real" economy were relatively tame. While growth in 1999 was barely 0.3%, in 2000 the economy actually grew 4.3%.

The occurrence of new external shocks, in 2001, first caused by the end of the dot com bubble in the United States allied to the developments in Argentina, and then in 2002, with the confidence crisis generated by the perspective of Lula da Silva's victory in the presidential election, revealed that vulnerability, if attenuated, was still large. The ghost of exchange rate crises returned to haunt the Brazilian economy, despite the advantages of the new regime. Balance of payments crises assumed now the form of sharp changes in the exchange rate instead of the loss of reserves characteristic of the previous period. In both cases, the instruments the authorities used to contain the crises remained the same, raising the interest rate, causing the economy to contract.

The operation of the new economic policy regime in the period, therefore, entailed a perverse effect on the real economy. As a result, as can be seen in table 1, the period was marked by low growth.

But the inability to allow the recovery of economic growth was not the only problem of the new policy regime. Other fragilities were also important. One important shortcoming of the regime only became visible later: the stability of the exchange rate at a favorable level to exports was a result of special circumstances rather than of policy design. The confidence that exchange rate variations would always provide for sustainable balance of payments equilibria resulted from theoretical prejudices rather than empirical realities. Even if it was correct, it ignored the potentially large negative effects of exchange rate volatility on the real economy. These impacts would be examined below, in section 4.

iii. Virtuous Growth: Myths and Realities 2004-2008

The Lula da Silva administration was inaugurated in January 2003. The new government, in a surprising move, maintained the same economic policy regime created under President Cardoso. Innovations would be introduced in social policy and, to some

extent, in industrial policies. Macroeconomic management policies, however, were maintained largely intact.

In the first semester of 2003, in fact, the new government was certainly more conservative in its policies than the outgoing Cardoso administration. Interest rates were increased from 25% to 26.5% and primary fiscal surplus targets were raised to 4.25% from 3.75%. The combined effect of the turbulences of 2002 and the contractionary policies of 2003 led the Brazilian economy to another recession in 2003. The situation began to improve, however, still in 2003. In fact, a new growth cycle was initiated that was only to be interrupted by the international crisis in late 2008. It was in fact the longest growth cycle in 30 years, lasting for about five years, reaching an average rate of growth of about 5%. Expectations, both domestic and abroad, improved significantly enough to lead to an increase in the rate of investment. In the four quarters immediately before the Lehman Brothers bankruptcy, investment was increasing at a rate of 19.7%, while GDP was growing 6.8%.

Opinion among Brazilian analysts is divided between those who believe that sustained growth resulted from the policy reforms adopted in early 1999, and those who defend that exceptionally favorable external conditions were the real cause of the prosperity experienced from 2003 to 2008. As one would expect, both views are partially right and partially wrong.

The behavior of the international economy certainly contributed significantly to the prosperity of the Brazilian economy in the period. Many emerging economies, in fact, performed well during this time. Brazil, in particular, drew important benefits from the export of commodities in recent years. But as shown in table 2, there had been an authentic revolution in the Brazilian balance of payments well in antecedence of the rise in prices of commodities that is alleged to respond for the performance of the economy in the period. Between 1998 and 2004 there was a significant increase in exports, measured in volume, rather than in prices, which became an important pre-condition to sustain growth subsequently. It was from 1998 and 2004 that the current account moved from a deficit equivalent to 4% of GDP to a surplus of 1.8%. The terms of trade only become favorable to Brazil more recently, when the current account position was already deteriorating.

The view that attributes newly resumed growth to policy reforms is partially right, but it ignores that the improvement in the external situation of the Brazilian economy was due to rather circumstantial factors. When these factors disappeared, as it is shown in section 4, below, exchange rates began to appreciate and new vulnerabilities emerged.

Table 2

Changes in the Brazilian Current Account and its Main Explanatory Factors (1998-2008)

Period	Indices				Values in % of GDP[1]	
	Volume of Exports	Volume of Imports	Terms of Trade	Real Effective Exchange Rate	Trade Balance	Current Account
1998	100	100	100	100	-0,8	-4,0
2004	196	99	88	193	5,1	1,8
2007	234	148	95	130	3,0	0,1
2008	228	174	98	126	1,6	-1,8

[1] Variables measured as % of GDP are subject to the influence of exchange rate changes on the dollar value of GDP.
Sources: Banco Central do Brasil, Secex and Funcex.

3. Financial Sector Policies and Regulation

It has been frequently noted that the Brazilian financial system exhibits some unique features when compared to the rest of Latin America. Despite the prolonged exposure of the Brazilian economy to similar factors of instability to those which hit the rest of the region, the country's domestic financial system seems to have been favored by some fortuitous side effects of policies adopted for reasons unrelated to financial sector problems. In particular, a decisive step for the survival and strengthening of the domestic banking system was the adoption of indexation of contracts in 1964. Indexation was meant to ensure the survival of a market for public securities, thereby allowing fiscal deficits, which were expected to persist for some years, to be financed by non-inflationary means. Foremost among the results of this policy, however, was that the creation of a domestic reserve asset which allowed the public to accumulate financial assets protected against domestic inflation, bypassing the usual alternative, *dollarization*. Since access to indexed public securities was given through the banking system, banks did not lose their share of financial transactions. On the contrary, the possibility of hedging against inflation enlarged the market for banking services. In fact,

dealing with indexed public debt became a central element of profitability for banks, both on behalf of customers and on proprietary trading.

When price stability was reached, in 1994, banks suffered an adverse shock with the loss of inflationary revenues[1], but the system was strong enough to withstand this loss. In fact, the year after the Real Plan was launched was marked by a serious distress in the Brazilian banking sector. Anticipating the loss of inflationary revenues, banks operating in Brazil had begun to shift their activities, from July 1994 on, from investing in public securities to extending credit to private borrowers. The supply of credit did grow significantly in the second semester of 1994, but by the end of the year the country was hit by the shock waves of the Mexican crisis (which also threatened the Argentine economy). To stop a rising wave of capital flight in early 1995, the Brazilian Central Bank increased steeply its policy interest rates. As a result, non-performing loans rose sharply, causing some banks to become insolvent or quasi-insolvent.

The distress was considered dangerous enough to lead the federal authorities to intervene, through a program known by its acronym PROER, basically by facilitating, and in fact actively encouraging, the absorption of problem banks by stronger institutions (Cf. Carvalho, 1998). After problem banks were "cleaned" of their bad loans, fiscal benefits were offered to potential buyers to promote mergers as quickly as possible.

Despite some criticism, PROER was a very successful program, actually inspired in the crisis resolution method developed in the United States during the 1981 Continental Illinois Bank failure. Benefiting from its provisions, three among the ten largest private banks in the country were merged with other banks without causing too much stir or uncertainty. A full-fledged banking crisis, that was a distinct possibility in the early 1995, was thus avoided. A similar crisis, at the same period, was also avoided concerning banks owned by states. The two largest state banks in the country, owned by the states of São Paulo and Rio de Janeiro, respectively, suffered intervention by the Central Bank in the first months of 1995. Both were later privatized. Ownership of banks by federal states had been a long known problem. State governments used to get

[1] IBGE/Andima (1997) estimates the losses of banks with price stabilization in about 4% of GDP.

indebted with these banks forcing the Central Bank to create enough reserves to keep them afloat when those loans defaulted, as it frequently happened. For all practical effects, reserves had become endogenous for state-owned banks. After the intervention in Banespa (the São Paulo State Bank) and Banerj (the Rio de Janeiro State Bank), a wide privatization program was passed that all but liquidated this segment in a few years). Finally, federal banks, and particularly Banco do Brasil, the largest bank in the country, were also in delicate situation. In the case of Banco do Brasil, its fragile position was explained mostly by the repeated concession of loans to politically favored borrowers, particularly in the agricultural sector. Borrowers, particularly large landowners, regularly defaulted in their loans, but the bank was prevented from pursuing their credits more aggressively by the strong lobby represented by the number of landowners in Congress. In the beginning of 1995, Banco do Brasil was technically bankrupt. Its survival was guaranteed by an emergency injection of capital by the National Treasury to cover its excess losses.

Another initiative of the period was the creation, in August 1995, of the Credit Guarantee Fund (CMN's Resolution 2197), to extend insurance over a large number of financial institutions' liabilities. The Fund currently guarantees to these liabilities up to the value of R$ 60,000 per person (identified by his/her internal revenues personal number). Its resources come from a contribution made by the financial institutions to the value of 0.0125% of the balances covered by the insurance. It is somewhat difficult to evaluate the contribution to financial stability given by CGF since even before the creation of the Fund, the Central Bank had consistently, if informally, operated as a deposit insurer. For what is worth, no bank runs have taken place in the country, even in difficult times such as the 1995 distress or the 2008 recession.

As can be readily noticed, at the dawn of the stabilization process, there was great concern with the ability of the domestic banking system to survive the transition to the new macroeconomic situation. Banking regulation, once very strict, had been softened since the late 1980s. In particularly, the authorization to create universal banks in 1988 (under the denomination *multiple* banks) marked the end of the organizational model adopted in the mid-1960s, characterized by an attempt to reproduce a Glass/Steagal-type financial system, with functional specialization of financial institutions. Deregulation of banks and capital markets had not had a deep impact then. Financial conglomerates

already defined the landscape of the sector by the end of the 1980s and the 1988 resolution formal adoption of the universal bank model was rather a legal acknowledgement of a de facto situation than a reform initiative. Some restrictions, notably on the entry of foreign banking institutions in the domestic market, were maintained and are still in force (cf. Carvalho, 2000: 149). In addition, in the last years of that decade, the dynamics of the Brazilian economy was entirely dominated by the attempts of private agents as well as governments to deal with high inflation. For the banking sector, this meant that the opportunity to make profits was rooted in the efficient operation of the system of payments (minimizing the time between transactions) together with the investment in public securities. The Federal Government, facing large fiscal deficits (mostly explained by the then-called Tanzi effect, the result of having revenues eroded by inflation more intensely than expenditures), had to make sure that there would be a market for the securities it had to issue. Not only returns were maintained at attractive levels, but liquidity and market risks were also all but eliminated.

As a result, the paradox that became typical of the operation of the Brazilian banking system well into the 2000s emerged: banking institutions were strengthened by inflation, rather than the opposite, as it happened in other countries afflicted by high inflation; technical progress, particularly in payment services, and not only rent-seeking, explained the strength of these banks; the provision of credit to private consumers and firms, however, was never a priority, so that, from the point of view of the credit market, Brazilian banks were deeply inefficient throughout the period.

The Real Plan brought with it the perspective of an evolution towards a more “normal” economy. It was expected that the disappearance of inflation would cause the Tanzi effect to go away. Smaller fiscal deficits, in a situation of price stability, signaled the need for banks to look for new opportunities in lending to private borrowers. If the expansion of private lending was certainly to be desired, this shift in bank priorities would certainly affect the solidity of banking institutions, exposing them to risks which had been practically unknown until then. Financial regulation, and particularly prudential regulation, should assume much more importance than it had had in the recent past. The events of 1995 and 1996, reported above, would confirm these expectations.

Financial stability would again be strongly tested in 2008, when Brazil suffered the contagion effects of the international crisis generated the year before in the United States. The domestic banking system, in contrast with banks in Europe and Asia, was not exposed to subprime mortgage risks, but foreign investors in local securities markets, particularly the stock exchange, were sensitive to the events taking place in the United States. These investors sold their portfolios to repatriate their capitals, causing the securities markets to fall sharply and the exchange rate to rise very quickly. In addition, large firms that have made derivative deals betting on the continuous appreciation of the real posted heavy losses when the exchange rate rose. These developments, given the general crisis framework, raised the level of uncertainty in the Brazilian economy and intensified liquidity preference. Bank credit contracted and even traditionally secure markets, like the inter-bank market for reserves, all but ceased their activities.

The reaction by government authorities was swift. Between September and October 2008, the Central Bank released required reserves of banks through several channels, including for the purchase by healthy banks of loan portfolios held by banks in difficulties. At the same time, the Federal Government ordered the three banks under its control, Banco do Brasil, the National Savings Banks (CEF) and the National Development Bank (BNDES) to pursue an aggressive policy of credit expansion to make up for the contraction of private credit by banks and the collapse of the domestic securities markets (resulting from the withdrawal of foreign investors). These measures, plus some other, more topic, forms of intervention were instrumental to reactivate the economy in a relatively short period of time. By mid-2009, financial markets were recovering their normal rhythm of work.

i. Prudential Regulation in the Banking System

In August 17, 1994, Brazil's main financial regulator, the National Monetary Council (CMN in the Portuguese acronym) adopted the central dispositions proposed in the 1988 Basle Accord. Domestic banks were allowed four years to adapt to the new rules, which instituted minimum capital coefficients to be calculated with respect to their assets weighted by risk. Traditionally, financial regulators in Brazil required banks to

maintain minimum absolute levels of capital. The novelty of the Basel agreement was to make capital coefficients variable according to the degree of risk banks were exposed to in their asset portfolios.

As in the original text of the 1988 Accord, CMN's Resolution 2099 defined four risk "buckets", with weights 0%, 20%, 50% and 100%. Thus, public debt securities, for instance, would have zero risk weight. Loans to private firms would be, in contrast, in the 100% risk bucket. It also defined what could be considered capital, in tiers one and two, besides, obviously common equity. This set of items was used to establish the value of the Reference Net Worth (*patrimônio de referência*), which should be at least equal to the Required Net Worth (*patrimônio líquido exigido*), calculated using risk weights.

Again as proposed in the original text of the Accord, regulatory capital coefficient was set in 8%. A few years after the Accord was signed, the Basle Committee for Bank Supervision, which authored the Accord, suggested developing countries should adopt higher minimum capital coefficients, since financial risks were assumed to be greater in these countries. Accordingly, the Brazilian Central Bank raised the minimum capital coefficient to 11% in the late 1990s.

As a rule, domestic financial regulators, and particularly CMN, tried to follow the proposals originated in the Basel Committee and similar institutions, such as, for instance, IOSCO (International Organization of Securities and Exchange Commissions), in the case of securities markets' regulation. In 1997, the Basle Committee issued the *Core Principles for Effective Banking Supervision*, which became known as Basle Core Principles) setting some general principles to be followed when establishing bank regulation, ranging from setting up procedures to licensing and structuring of banks to dealing with multinational banks. It should be noticed that adherence to these Principles were not entirely a question of choice. Market pressures, for emergent economies, as well as the active prodding of multilateral institutions, such as the IMF and the World Bank, through the Standard and Codes program which relied on the Basle Core Principles to evaluate the suitability of domestic systems of regulation, were crucial for the rapid transformation of the 1988 Basle Accord from a document of interest

restricted to signatory financial regulators toward the undisputed book of rules it became by the late 1990s.[2]

Brazil was certainly no exception to the trend of adhering to Basle Principles, even though its regulators had absolutely no voice or input in the formulation of the 1988 rules.[3] As one would expect, rules were adapted to some extent to local realities. In particular, one should notice that when the 1996 Amendment to the 1988 Accord, extending the calculation of capital coefficients to cover market risks, was adopted in Brazil, the possibility of using in-house models to calculate an institution's Value at Risk (VaR), proposed by the Basel Committee, was not accepted by the Brazilian regulator. As a rule, Brazilian regulators seemed to prioritize the modernization and formalization of risk administration structures in banking firms. The Basle Core Principles became, thus, a central document to orient the Central Bank's prudential regulatory strategy since the late 1990s. New instruments were introduced, such as subordinated debt, to count as part of tier 2 of capital coefficients. Exchange and interest rate mismatchings in banks' books received special attention from local supervisors as well as the increasing appeal to swap contracts and other derivatives. Important initiatives in accounting were taken to seek uniform treatment of value changes in portfolios of securities held or owned by banks. The role of internal and external auditors was formalized and routines were established for the transmission of information from banks to financial supervisors.

All these measures were implemented without causing any visible problems or eliciting resistance from the industry. In fact, most banks have maintained actual capital coefficients that are significantly higher than the minimum level set by CMN. It is necessary to be cautious, however, in the interpretation of this information. The long dominance of public debt in the asset side of banks' balance sheets, given its zero risk weight for the purpose of complying with Basle rules, means that the majority of financial assets in banks' balance sheets is simply ignored in the calculation of minimum capital requirements. One could argue that this is as it should be, since credit risks are actually zero for public debt denominated in domestic currency. At the same

[2] For information about the Standards and Codes program cf. http://www.imf.org/external/standards.

[3] The democratic deficit in the governance of international and multilateral institutions setting up financial regulation is the subject of a project led by Ibase, under the sponsorship of the Ford Foundation. For more information, cf. www.democracyandfinance.org.br.

time, Central Bank's practices have traditionally implied that market and liquidity risks in the case of public debt are equally nil. However, one cannot forget that, from the point of view of banks' safety, this may be a somewhat unsatisfactory position, since it exposes banks to another category of risks we could generically refer to as *political* risk. Although, ex post, it has not been the case, one could not exclude the possibility of politically-motivated changes in the rules of the game in the market for public debt, as it occurred, for instance, during the Collor Plan of stabilization, in 1992. In that occasion, operations in that market (and in many others, in fact) were suspended for 18 months. Although one could point out that safeguards against a repetition of such an event were created in reaction to that Plan, it is impossible to exclude a priori other attempts at political intervention in the market of public securities.

Be it as it may, the adoption of Basle Core Principles, so far, does not seem to have adversely affected banks' profitability or operational strategies. The situation could change with the new attempt at expanding credit to private borrowers, as it happened between 2006 and 2008, but the move was discontinued in the face of contagion of the international crisis in the last quarter of 2008. As this work is being written, credit to the private sector is again giving signs of initiating another expansionary wave, posing the question of the impacts of Basle rules on the behavior of banks in Brazil.

The picture may change, however, also because of the publication of the New Basle Accord, known as Basel II, in 2004. The Central Bank of Brazil did not waste time in adhering to the new rules, issuing a communiqué (numbered 12746, of December 9, 2004) setting the chronogram for the shifting of prudential rules to the Basle II model. Since then, the Central Bank has been periodically issuing instructions to orient the adaptation to this model and making the modifications required by local conditions. It was announced, for instance, that the standardized approach to the calculation of credit risks will be based, as proposed in the original Basel II agreement, on ratings set by specialized agencies. Given the fact that coverage of loans by rating agencies in the country is very limited, the Central Bank decided to issue itself a new table of risk weights, although more finely defined than the four-bucket classification of Basle I.[4] On

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[4] The same method seems to have been accepted by federal regulators in the United States, who rejected the use of external ratings in favor of issuing a new table of risk weights. Cf. http://www.federalreserve.gov/newsevents/press/bcreg/20080626b.htm

the other hand, special attention has been dedicated to operational risks, generating some complaints from banks that the Central Bank dispositions may actually turn out to be too expensive. So far, the Central Bank does not seem to have been moved by these complaints. The process of adaptation to Basel II was expected to be completed by 2011. As the international crisis forced the Basle Committee not only to revise the 2004 Accord but also to open its membership to a certain number of new countries, including Brazil, it would not be surprising if the deadline was extended to take into consideration eventual modifications in the original text.[5]

In sum, one cannot deny the effort of the Central Bank and CMN to modernize prudential regulation of banks, and to improve the efficiency of its supervisory efforts. It is debatable whether Basle rules are really the best strategy to promote systemic stability and the international crisis initiated in 2007 has strengthened the criticisms against Basle II. In any circumstance, the Central Bank, as the most important supervisor of the banking system has been very attentive to what has constituted the frontiers of supervisory technology. On the other hand, one cannot easily dismiss the hypothesis that the solidity demonstrated by the domestic banking sector in the current crisis may have more to do with the low exposure to private borrowers than to the efficiency of its risk management practices and precautions taken by the supervisor. It is necessary to wait until the Brazilian banking system develops a more "normal" financing profile, giving more extensive support to private borrowers, before passing more than preliminary judgment on the role and efficacy of domestic prudential regulations.

ii. Regulation in Securities Markets

In line with the general approach accepted almost universally until at least the 1998 LTCM episode, regulation in securities markets has not been targeted at guaranteeing systemic stability, but, rather at protecting the integrity of markets. Traditionally, systemic risks were not supposed to be relevant if the banking system was not affected by turbulences generated in other segments of the financial system. Therefore,

[5] It is widely considered a done deal, for instance, that capital coefficients will generally be increased, without prejudice to any initiative to define new categories or variants of risks, such as systemic risks, that should be reflected in the calculation of capital coefficients. Cf. among others, Brunnermeier et alii (2009). See also Cf. BCBS (2009).

regulation should be directed at the preservation and improvement of existing securities markets, promoting transparence, accountability and controlling, or, hopefully, eliminating, market manipulation and conflicts of interest.

This perception began to change with the LTCM crisis, but even then it was not clear whether the systemic risk was rooted in the possible collapse of securities markets all over the world or in the fact that banks had financed LTCM operations and could lose a lot of money if an open crisis could not be avoided.[6] Presently, a vigorous research field has emerged in the study of how systemic risks similar to those created by the possibility of paralysis of the banking system could emerge as a result of the collapse of securities markets.[7]

The regulation and supervision of securities markets in Brazil followed the traditional pattern, disregarding systemic concerns and investing in the creation of rules and procedures that could protect the integrity of markets. The main goal of regulators in the last two decades has undoubtedly been to attract new investors to local securities markets, particularly to *private* securities markets. As soon as the exceedingly high risks associated to the high inflation that plagued the Brazilian economy until the mid-1990s were significantly attenuated, the concern with developing the particular segment of private securities became paramount. An implicit assumption underlying the strategies adopted by regulators seemed to be that domestic investors had to be lured back to private securities markets. They had been "burned" by the stock exchange bubble of 1971, which caused the market to contract for a long period, and would not return voluntarily. The acceleration of inflation in the late 1970s and early 1980s had increased the stakes even further, making the stock exchange widely unattractive as an investment opportunity for all but a few risk-lovers. With respect to equity markets, the challenge to regulators was to regain the confidence of investors.

A short cut to the revival of domestic stock markets was the opening of this segment to foreign investors. It was expected the increasing market liquidity and rising stock prices caused by foreign investments could raise the attention of domestic investors enough to

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[6] CGFS (1999) is an earlier but very interesting debate of the possibility of systemic crises being generated in securities markets.
[7] Cf., for instance, Brunnermeier et alii (2009).

bring them back. Foreign investors, on the other hand, tend to be much more demanding than domestic investors. Rules had to be adopted to guarantee the right of minority investors and to improve corporate governance. Brazilian firms, even some of the largest firms, were mostly family interests, whose priority of interests was guaranteed by the issuance of preferential shares which did not allow share-owners to vote and have an influence on their management. Accordingly, arrangements were made to create the New Market, at the São Paulo Stock Exchange the main stock exchanges in the country, to attend the demands of more discriminating investors.

A strong push to stock exchanges was given by the privatization process of the 1990s. But regulatory reforms were also very important. Among the most important initiatives one should count the Corporate Law of 2001 (Law 10.303/01). This law safeguarded the rights of minority shareholders by guaranteeing that they would not suffer undue losses when the firm was merged or acquired by another. The representation of minority shareholders in management boards was also assured by this law. Particularly noticeable was the reclassification of what used to be defined as misdemeanors, such as market manipulation and insider trading, as crimes, which subjected perpetrators to jail time.

More recently, regulators also sought to increase market safety by implementing devices such as the use of circuit breakers in stock exchanges, as well as instructing the supervisors to pay attention to signs of excess concentration of positions in forward markets, to the offer of custody and settlement services, and to risk in general.

Fiscal incentives were also granted, in the form of exemption of indirect taxes such as the (currently extinct) CPMF to stock exchange transactions, later extended to financial transactions in general.

These measures (and many others of lesser impact) were all very important to support the revival of the stock exchanges. However, certainly the most fateful decision was taken still in the late 1980s. In 1987, CMN allowed foreign investors to participate in the domestic financial market through the creation of institutions with the specific purpose of so doing. A few years later, in 1991, the privilege was extended to individual foreign investors without the need to create a special purpose vehicle as established in

1987.[8] This was valid for investments in primary and secondary markets, and equity and debt markets.

As it will be seen in the next section, the impact of these decisions was overwhelming, most notably in the stock exchanges. As time progressed, more and more the dynamics of Brazilian stock exchanges became dominated by the size and direction of foreign capital flows.

Let us turn now to debt securities. Debt markets also benefited from those regulatory changes, but one can argue that the main obstacle to the development of a private debt securities market has been the consolidation of an oversized market for public debt securities, which, on its turn, was explained not only by the intrinsic value of the latter, but by the advantages that were given, as argued above, to investors in these assets.

Markets for private debt were squeezed from both sides during the high inflation period and afterwards. At first, high inflation kept interest rates too high to attract private borrowers, which had a better alternative source, if they were big enough, to borrow on foreign financial markets, or, if they were not, had to appeal to informal sources, such as the entrepreneur's personal credit, or to loan sharks, or, generally, to minimize the use of borrowed resources. The only significant local source was the National Development Bank (BNDES), which, however, had to ration its resources given the excess demand for credit.

Interest rates remained high even after price stabilization was achieved. Under capital account liberalization (which had been pushed on since the early 1990s), the specific exchange rate regime adopted from 1995 to 1999 imposed high floors for domestic interest rates, in order to avoid capital flight. After 1999, this constraint was attenuated, but other factors kept interest rates generally high, making the placement of private debt securities a less appealing financing device for firms. This picture was slowly changing in the second half of the 2000s, but the change was interrupted (at least temporarily) by the 2008 recession.

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[8] This permission was granted by adding a new annex to the original 1987 document, CMN's Resolution 1289. The new Resolution, numbered 1832 added Annex IV, listing allowed categories of investment. In the usage of local Brazilian markets, these steps are known simply as Annex IV.

However, as already argued, public debt securities offered more than high interest rates. It also offered powerful hedges against interest rate changes, exchange rate changes and, something which became a minor attractive, price inflation. Finally, the widespread belief that the Central Bank would always move to prevent congestion of the market for public debt, by whatever means necessary, set a very low, practically nil, level for liquidity risk.

Interest rates were finally coming down, albeit very slowly, in the late 2000s. The fall of interest rates induced an almost explosive growth of the market for debt securities, especially debentures. Debentures are a preferred instrument because of its flexibility, changing its terms almost automatically when some event listed in the contract takes place. In a situation where investors and borrowers seem to be still unsure about the solidity of macroeconomic stability, debentures can be much more attractive than bonds or notes.

As it happened with the equity market, public securities markets were also submitted to improved regulation with reference to governance aspects and prevention of market manipulation, to protect investors and, thereby, protect the integrity of these emerging markets.

Also very important, although it is still in its first steps, is the push to securitization that has been given in the 2000s. Securitization began mostly with sectors such as credit card receivables, as it happened in other places where this innovation was introduced. Some other activities where incoming revenues could be predicted with reasonable certainty also attracted the attention of market participants. In particular, housing finance has been given a push by securitization, without subjecting the financial system to risks such as the ones associated with the subprime crisis in the United States. The equivalent segment of housing markets to the subprime segment are attended mostly by public institutions, not by private finance.

Some of the securitization reforms that are being introduced do not really represent a push to the securities market. One of the most important instruments created so far, the Investment Fund in Credit Claims (FIDC in the Portuguese acronym), is a source of

finance to firms that can anticipate revenues from a given operation, but participation in these funds is obtained by the purchase of quotas, not of securities, and no secondary market for these quotas has yet emerged. It may become the embryo of a future market for asset-based negotiable securities, but, at the moment, it is not.

iii. The Financial System and the Financing of Private Expenditures in Brazil

The Brazilian financial system is bank-dominated not only because bank credit is the main channel of finance in the country but also because conglomerates led by banking institutions practically control every single segment of overall financial markets. As of June 2009, among the ten largest banking groups operating in the country, one would find three institutions owned by the Federal Government (occupying positions 1, 5 and 6), four private domestic banks (in positions 2, 3, 8 and 9) and three foreign groups (positions 4, 7 and 10). Each one of the three largest banks, Banco do Brasil, Itau and Bradesco, is more than ten times larger than the tenth, Citibank, measured by total assets.[9]

Overall, 2,409 institutions were authorized to operate by December 2008, of which 140 were universal banks, 17 were investment banks and 4 were development banks (BCB 2009: 136).

As happened in other countries under similar conditions, the prolonged period of high inflation experienced by Brazil distorted its financial development in a number of ways. It was already mentioned that a peculiar feature of the Brazilian banking system was that financial institutions not only survived high inflation but actually thrived in this period. Indexation sustained their viability and sharing inflationary revenues made them profitable. Retaining financial resources meant, to a large extent, responding to the most pressing need of customers at the time: to avoid at all costs holding idle monetary balances. Accordingly, Brazilian banks invested heavily in the development of advanced payment systems that could offer the agility customers demanded. In addition, the creation of transactions instruments that could at least attenuate inflationary corrosion became a powerful competitive tool.

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[9] Data about the largest banks operating in Brazil, from http://www4.bcb.gov.br/fis/TOP50/port/Top502009060PCL1.asp. Downloaded September 20, 2009.

As efficient as the banking system was in the management of payments, it was not able to sustain a supply of credit to private borrowers that could be minimally adequate to their needs. Interest rates were too high, loan maturities too short. Large firms could still obtain bank credit or to look for loans in foreign markets, particularly after the debt crisis of the early 1980s was finally resolved. Medium and small firms had to content themselves with accumulated profits, the appeal to informal sources of credit, such as loan sharks or to use bank overdrafts in their personal accounts (at exceedingly high interest rates). A lone bank lender to firms survived, BNDES, but with insufficient resources to attend all demands. Thus, credit/GDP ratios were very low and even then probably overestimated the role the financial system was performing in supporting economic activity. The only significant borrower with permanent access to financial resources was certainly the government.

Once high inflation was over, many false starts characterized the ensuing evolution of credit. Banks began to extend credit to private borrowers in increasing amounts right after the monetary reform of 1994. To a large extent, the dominant perception in the industry was that lending to government would soon become a declining business. In this situation, very bank felt that it was necessary to ensure a position in private markets to preempt competitors. The Mexican crisis in late 1994 interrupted this first start. Public debt reasserted itself as the most attractive investment for banks and other financial institutions, as the federal government kept the rates of interest on public securities at high levels to prevent capital flight, from 1995 to 1998.

The adoption of flexible exchange rates after the balance of payments collapse at the beginning of 1999, allowed some latitude to the Central Bank to adopt lower domestic interest rates but it would be a while before trends in the evolution of the Brazilian economy became clear enough to lead the financial system to begin changing their strategies. In 1999, as shown in table 3, credit to private borrowers was still only about 25% of GDP. In fact, it would basically remain at that level until 2002, when it took a turn for the worse. The 1990s had been a decade characterized by high volatility in the international economy. As successive Brazilian governments, from the late 1980s on, had progressively dismantled capital controls, the capital account of the balance of payments became a strong transmission channel of disturbances generated in the international economy. In the early years of the next decade, crisis factors were

generated locally. The first election of President Lula led to a confidence crisis in domestic financial markets and to a new episode of capital flight, in 2002. The policies adopted to control this crisis led to new macroeconomic difficulties in 2003 and early 2004. A tentative, if still fragile, recovery began then, which gathered strength at mid-decade and in fact became increasingly vigorous as time passed, fueled by a more aggressive expansionary economic policy adopted by the Federal Government once then Finance Minister Pallocci was fired on account of a scandal.

Table 3

Credit Stock Supply by Sectors as a Share of GDP (%) end of year

Year	Activity Sector					Institutional Sector		TOTAL
	Manufcturing	Housing	Agriculture	Commerce	Household	Public Sector	Private Sector	
1999	7,9	5,0	2,4	2,7	3,9	1,6	25,4	27,0
2000	7,3	4,7	2,4	2,7	5,3	1,4	26,3	27,7
2001	7,6	1,8	2,1	2,8	6,2	0,8	25,1	25,9
2002	7,8	1,7	2,3	2,7	6,0	0,9	25,1	26,0
2003	6,9	1,5	2,8	2,5	5,8	0,9	23,7	24,6
2004	6,4	1,3	3,0	2,8	7,0	1,0	24,7	25,7
2005	6,5	1,4	3,1	3,0	8,8	1,0	27,3	28,3
2006	6,9	1,5	3,3	3,3	10,0	0,8	30,1	30,9
2007	8,2	1,8	3,4	3,8	12,1	0,7	35,3	36,0
2008	10,3	2,2	3,7	4,3	13,5	0,9	41,5	42,4

Source Central Bank of Brazil database, series 2046, 2047, 2048, 2049, 2050, 4445, 4446, 1207

As shown in tables 3, 4 and 5, the acceleration of economic growth from 2004 to 2008 was supported by a strong expansion of financial markets. The credit-to-private-borrowers/GDP ratio increased rapidly, from 27% in 2005 to 41% in 2008. The ratio would have been even higher if the growth trend had not been broken by the shock suffered in the last quarter of 2008. The same was happening with the stock market, as table 4 shows. Primary issuance of shares represented 18% of the value of total investment in 2005, reached 27% in the next two years and fell to 23% in 2008, again a number influenced by the heavy losses of late 2008. Finally, and perhaps even more significantly, markets for private debt securities were growing very rapidly until 2008, when they literally stood still. No deals were made in late 2008 and early 2009. Currently, both markets for new shares and for new debt securities give signs of recovery, but there is still some uncertainty surrounding the strength and sustainability of economic recovery.

Table 4

Stock Market: Primary Issuance (%)

Year	As a Share of	
	Total Investment	GDP
1998	16,6	2,8
1999	10,8	1,7
2000	9,4	1,6
2001	10,4	1,8
2002	8,7	1,4
2003	3,9	0,6
2004	7,8	1,3
2005	18,0	2,9
2006	27,7	4,6
2007	27,3	4,8
2008	23,3	4,4

Source: Carvalho et all (2009).

Table 5

Securities Markets: Primary Issuance of Shares and Debt Securities (US$ million)

Year	Shares	Debentures	Other Debt
1998	3.495	8.352	11.806
1999	1.468	3.598	4.654
2000	770	4.752	4.617
2001	625	6.584	2.767
2002	370	4.697	1.737
2003	74	1.756	1.459
2004	1.570	3.305	3.132
2005	1.923	17.107	5.749
2006	6.594	31.879	8.876
2007	17.285	25.016	11.675
2008	19.859	21.576	21.060

Source: Carvalho et alli (2009).

The numbers in tables 3, 4 and 5, however, can be somewhat misleading. Activity in private borrowing markets was certainly increasing rapidly, but one should not be too quick in assuming that the financial system was finally becoming really supportive of economic growth in Brazil. A careful look at table 3, for instance, reveals that the segment best served by credit suppliers was of households. In fact, personal credit increased fast in the 2000s, not only because consumer credit is charged with the highest rates of interest in the industry, but also because the modality of credit involved was the lowest risk available. This modality was payroll credit, in which the lender has the right to deduce loan repayments due directly from the borrower's paycheck. A large

share of these loans was conceded to public servants and retirees, whose incomes are guaranteed by job stability or by social security. Credit to the manufacturing sector began to take off in 2007, but its rising path was also interrupted in 2008. For all the other segments, increases in the supply of credit were at best marginal.

As to stock markets, the data presented in table 4 are certainly impressive. Issuance of stocks has been an increasingly important source of finance to firms. A few qualifications, however, have to be made. First, it is important to keep in mind that this is a source of funds for a relatively small number of, usually large, firms. Placing stocks involves costs that are mostly beyond the means of most firms. This, of course, is not a peculiar characteristic of the Brazilian economy or even of developing economies in general. But it is important to call the attention that it is a relatively inaccessible source of finance for most firms.

Secondly, it is also important to note that buying stocks is a form of financial investment that is very sensitive to the level of uncertainty prevailing in the economy and, in particular, to changes in expectations about macroeconomic and policy developments. When foreign investors dominate the market, it becomes very sensitive to events taking place outside the domestic economy and beyond the control of national policy-makers. From table 4 one can easily realize the high volatility that marks this market, even though annual data tend to naturally smooth out most of the variation of these values.

Finally and obviously related to the last remark, one should stress the dependence that has been characteristic of this market on foreign investors, as shown in table 6. Again, the information about 2008 is heavily contaminated by the events already described. Stock markets were hit in a particularly strong way. But if we discard the 2008 datum, we see that from 2004 to 2007, foreign participation were at a minimum 50%. Investment funds are a distant second, followed by individuals. As noted, foreign investors are usually influenced by events in their country or origin rather than by local perspectives, making stock markets a rather unreliable source of finance for firms with investment plans that need consistent and permanent support.

Table 6

Stock Market: Primary and Secondary Purchases by Class of Investor (%)

	2004	2005	2006	2007	2008
Individuals	10,6	7,4	5,5	7,2	5,8
Investment Funds and Clubs	28,4	17,5	16,5	15,9	15,7
Pension Funds	3,7	2,2	1,1	1,1	1,9
Foreign Investors	48,6	57,7	62,3	71,2	28,2
Financial Institutions	2,5	2,8	3,3	4,9	1,3
Other	6,2	13,8	13,7	3,5	47,5
Repurchases by Issuing Firm	0,0	-1,3	-2,4	-3,8	-0,4
Total	100	100	100	100	100

Source: CVM, elaborated by Carvalho et alli (2009).

If one turns, at last, to debt securities shown in table 5 some of the same problems are also important. Access to these markets is also restricted to firms of a certain minimum size. It has also been widely dependent on foreign investment, usually attracted by interest rates that are higher than what can be obtained elsewhere (and, recently, also by the expectation of appreciation of the local currency). The market can be favored by the recent attribution of investment grade to Brazilian debt by all major ratings agencies, attracting because of that longer-term investors, but so far market expansion has been supported by more speculative (and volatile) investors.

It is possible to argue that most of these problems were to be expected since only recently the Brazilian economy has reached a growth path that seems high and sustainable enough to induce financial institutions to develop new practices and instruments that would allow them to expand the private supply of finance. Gradual evolution should have been expected, particularly if one takes into account the number of false starts that has characterized the last thirty years of performance of the Brazilian economy. Once the view sets in that the recession initiated in late 2008 is really over, as preliminary data suggests, banks and securities markets would resume their levels of activity and promote the changes necessary to attenuate or eliminate the reservations expressed above. A positive factor in this process has been the increased competitive pressure applied by public banks, such as Banco do Brasil, BNDES and CEF, that may threaten the market shares held by the private financial industry until the crisis. As the official institutions grew during the crisis, the recovery is taking place in a picture where private institutions have already lost some market share and will probable strive

to regain them. Some large private banks have already announced plans to expand activities quickly to make up for lost terrain.

iv. Systemic Safety: Recent Developments

The Brazilian banking system has been, as already pointed out, reasonably secure, according to the usual indicators. Thus, table 7 shows that Brazilian banks have held capital coefficients well above the minimum required by local prudential regulation, which is 11% of assets weighted by risk. Comparison with other countries in table 7, particularly with other emerging economies in Latin America, suggests that Brazilian banks would be better protected against bankruptcy than banking systems in the rest of the region.

Table 7

Basel Capital Coefficients (%)

Country	2003	2004	2005	2006	2007	2008
Argentina	14,5	14,0	15,3	16,8	16,8	16,8
Australia	10,0	10,4	10,4	10,4	10,2	10,5
Brazil	19,0	18,5	17,4	17,8	17,3	17,5
Chile	14,1	13,6	13,0	12,5	12,2	12,4
Mexico	14,4	14,1	14,5	16,3	16,0	16,0
Spain	12,6	12,3	12,2	11,9	11,4	nd
Canada	13,4	13,3	12,9	12,5	12,1	12,3
South Africa	12,4	14,0	12,7	12,3	12,8	nd

Source: BCB, Relatório de Estabilidade Financeira, maio 2009, p. 61

As it is always the case, one has to be careful in interpreting this information. It was already argued that the other side of the coin of security against risk of default is the political risk represented by the high concentration of banking assets on public securities. Brazilian banks would be highly vulnerable to politically-induced changes in debt management policies. Admitting, however, that the probability of such changes taking place is currently very low, there is reason for concern with the changes the future can bring. If, as argued in the preceding section, Brazilian banks will effectively shift their applications from public securities to loans to private borrowers, Basel indices will inevitably fall. How far this fall will go, and what measures can and will be taken to manage these increased risks is not yet clear, since one can safely say there is no precedent in recent Brazilian history for such a change as it is expected (and desired)

to happen. Financial supervisors will face a dilemma: one is, of course, happy with the resilience shown by domestic banks in the face of an important world crisis, and would like it to remain so; however, the price of this resilience has been, to some extent, the large disfunctionality of the financial sector in supporting private investment and capital accumulation. How skillful will be these banks in handling increased default risks and how apt will be financial prudential supervision to contain excessive risks is still to be determined.

Table 8 gives a more detailed view of the exposure of banks to default risks, according to the classification of risks determined by the Central Bank (from AA, the lowest risk, to H, the highest). The share of loans outstanding held by the banking sector in the three lowest risk tranches is consistently over 80% in the period covered by the data, which is a period, one should remember, of bank credit expansion, as shown in table 3. Given the extent to which credit has been repressed in the Brazilian economy, there should be some room for credit supply growth without exposing banks to riskier categories than they are currently exposed. Of course, risk in the *balance sheet* should grow as a result of the shift from public securities to private loans. In other words, banks should increase their risk exposure because they will substitute private for private assets, but *inside* the private assets group, risk profiles may probably remain unchanged for some time, as safe, but currently rationed, borrowers are gradually served.

Table 8

Loans by Risk Class (end of the year) - 5

Year	2006	2007	2008
AA	25,1	25,1	24,0
AA	39,3	40,7	39,9
B	17,2	17,6	19,2
C	9,1	8,7	9,0
D	2,8	2,4	2,6
E	1,4	1,3	1,1
F	0,9	0,7	0,8
G	0,8	0,6	0,6
H	3,4	2,9	3,0

Source: BCB, Relatórios de Estabilidade Financeira, May 2008 and May 2009.

Table 9 shows, however, that the proportion of non-performing loans in the Brazilian banking system has been consistently higher than the average in the emerging Latin American countries, with the exception of Argentina, that went through a severe banking crisis at the beginning of the decade. This indicator would suggest a comparatively higher fragility of Brazilian banks, but this impression is somewhat changed when one takes into consideration that provisions for non-performing loans are also high in Brazil, as it is shown in table 10. In fact, all four Latin American banking systems reported in table 10 seem to keep a thick safety cushion against default losses.

Table 9

Non-Performing Credits as a Proportion of Total Portfolio (%)

Country	2003	2004	2005	2006	2007	2008
Argentina	17,7	10,7	5,2	3,4	2,9	2,8(1)
Australia	0,3	0,2	0,2	0,2	0,2	0,3(2)
Brazil	3,9	3,0	3,5	3,7	3,2	3,4(3)
Chile	1,6	1,2	0,9	0,8	0,8	0,9(1)
Mexico	2,8	2,2	1,8	2,1	2,5	2,1(2)
Spain	1,0	0,8	0,8	0,7	0,9	1,1(4)
Canada	1,2	0,7	0,5	0,4	0,4	0,9(2)
South Africa	2,4	1,8	1,5	1,1	1,2	

Source: Source: BCB, idem, p. 61; (1) May; (2) March; (3) June; (4) April

Table 10

Provisions for Non-performing Loans (%)

Country	2003	2004	2005	2006	2007	2008
Argentina	79,2	102,9	124,5	129,9	129,6	122,3(1)
Australia	131,8	182,9	203,0	202,5	183,7	128,6(2)
Brazil	179,3	201,6	176,6	171,4	175,3	185,5(3)
Chile	130,9	165,5	177,6	198,5	210,4	187,5(1)
Mexico	167,1	201,8	232,1	207,4	169,2	184 (2)
Spain	231,5	289,0	235,7	255,1	204,8	144,1(4)
Canada	43,5	47,7	49,3	55,3	42,1	36,7(2)
South Africa	54,2	61,3	64,3			

Source: Source: BCB, idem, p. 62; (1) May; (2) March; (3) December; (4) April

Finally, again except for Argentina, where the balance of payments and banking crises of the early 2000s contaminates the data, banking businesses seem to have been as profitable in Brazil as in the other emerging economies in the region, according to table 11. Brazilian and Mexican banks seem to enjoy the highest rates of return on equity (although in Mexico the behavior of ROE has been a little more volatile than in Brazil). In Argentina the data on profitability mirrors the turbulence of recent years. Chile

shows stable, but lower than in Brazil or Mexico, rates of return on equity and on assets. The current international crisis does not seem to have threatened the returns of banks in any of those countries, even though in three of them rates were lower in 2008 than in preceding years.

Table 11

Returns on Assets (ROA) and on Equity (ROE), %

Year	Argentina		Brazil		Chile		Mexico	
	ROA	ROE	ROA	ROE	ROA	ROE	ROA	ROE
2003	-3,0	-22,7	1,6	15,8	1,3	16,7	3,0	3,0
2004	-0,5	-4,2	1,9	17,6	1,2	16,7	1,6	16,1
2005	0,9	7,0	2,2	21,2	1,3	17,9	1,8	17,2
2006	1,9	14,3	2,1	20,6	1,3	18,6	2,7	24,4
2007	1,5	9,0	2,4	22,4	1,1	16,2	3,1	26,2
2008	1,7	14,1	1,9	18,3	1,1	15,7	2,8	19,9

Source: BCB, idem, p. 62

In sum, either in isolation or in comparison with other countries', the Brazilian banking sector seems to be in a reasonably safe position, exhibiting strong prudential indicators. Nevertheless, how reassuring these indices really are will probably be decided in the near future, to the extent that recovery from the 2008 recession firms up and the local financial system does shift from public to private borrowers and expand its activities.

4. Exchange Rate Regulation and Macroeconomic Stability

For the last twenty years, all federal administrations pursued, notwithstanding their political and ideological differences, a continuous process of capital account liberalization. It represented a break with a tradition of controlling external financial flows which had its roots in the 1930s, in reaction to the Great Depression. As it frequently happens with momentous policy changes in Brazil, it has been a slow, gradualist process where major decisions are made in a rather opaque way and not always respecting appropriate legal rituals (Fanco and Pinho Neto, 2004).

There were some previous attempts to liberalize the capital account, as it happened in the 1962 with the passing of Law 4131, which guaranteed the "right of return" and of profit remittances to foreign direct investments, loans and other forms of finance. It was under these legal rules that Brazil joined the emerging market for Eurodollars in the 1960s and 1970s. The debt crisis of the early 1980s, however, interrupted the trend

towards liberalization. Capital controls were hardened while the country was excluded from the international financial system for almost a decade.

By the end of that decade and beginning of the 1990s, capital controls were abolished in the advanced economies. Developing economies were also moving in this direction, in a slower and more tentative pace. It was in this environment that the Brazilian authorities took the first steps to restart the capital account liberalization process. At first, major steps were taken towards this goal, after which the authorities proceeded more carefully, if not less decidedly, to pursue almost complete convertibility of the capital account, as it is currently the case.

i. Capital account convertibility: main steps

The first major steps towards capital account convertibility were taken between 1988 and 1992 through three main initiatives of deep impact[10]: the creation of a segment of the exchange market where rates were allowed to float freely; the opening of domestic securities markets to foreign investors; and the permission to transfer financial resources abroad without proof of previous internment through the so-called CC5 accounts, all but revoking the principle underlying the "right of return" mentioned before. Once these rather radical changes were implemented, capital account liberalization was pursued further through less momentous initiatives.

The floating exchange rates market was created in 1988 while the overall exchange market was still ruled by crawling peg regime. The new regime applied only to operations that used to be forbidden or strictly controlled. One important result of this measure was the virtual disappearance of the black market as more and more types of transaction were allowed under the new rules.

The most important initiative with respect to the capital account was, surely, the lifting of restrictions to foreign investment in domestic securities markets, discussed in section 3. Once the so-called "Annex IV" mechanism was established, foreign investors answered quickly to the new opportunities and increased decisively their presence in these markets.

[10] For details of the referred policy initiatives, not only related to the capital account but also to current transactions since 1988, see Carvalho, Hoff and Souza (2008), Franco and Pinho Neto (2004) and Cintra and Prates (2005).

The exit of financial investments by residents was also facilitated. The changes introduced in CC5 accounts allowed financial institutions operating in the domestic market to transfer abroad not only their own resources but also any deposits made with them for the same purpose, without any need to prove that these resources had been previously interned in the economy. It was an underhanded move to allow residents to buy assets abroad, circumventing the principles underlying Law 4131.[11]

Within this regulatory framework, the Brazilian economy returned to the international financial system even before the debt crisis was resolved, with the successful debt renegotiation under the Brady Plan, in 1994. The strong recovery of capital inflows between 1992 and 1994, including the newly-allowable investments in the local stock exchanges, confirmed the authorities' expectations, as it is shown in table 12

Table 12

Main Net Capital Flows to Brazil (US$ billion)

Flow	1982-1991	1992-94	1995-98
Foreign Direct Investment [1]	0,6	1,2	13,8
Net Porfolio Equity Inflows	0,0	4,9	4,1
Net Debt Flows [2]	-0,8	9,9	10,7

[1] Exc. Conversion of debt into FDI.
[2] Exc. New money on non voluntary basis and Monetary Authority flows.
Source: prepared by the authors on the basis of Central Bank data.

The honey moon with the international financial system was abruptly, but briefly, interrupted by the *Tequila effect*, the contagion of the Mexican crisis of 1995 to the Brazilian economy. The crisis that began in late 1994/early 1995 has a serious impact on the domestic banking sector, as already discussed. In terms of the country's balance of payments, however, it was the Asian crisis that marked a really critical moment. The strong instability of international capital flows to developing economies initiated with that crisis ultimately led to the balance of payments crisis of 1999 and the abandonment of the exchange rate regime adopted in 1995.

The 1999 crisis represented a cross-roads for the strategy pursued so far. As reported by then-chairman of the Central Bank of Brazil, Francisco Lopes, at that moment the

[11] Doubts whether the changes were lawful or not led the Central Bank to issue a manual (Banco Central, 1993) where it was stated that there was nothing wrong with the decision of a plain Brazilian citizen to dispose of her savings in whatever way she wishes, comprising sending it abroad, provided that taxes were paid.

authorities were faced with two alternatives: to reestablish capital controls and declare moratorium to try to rescue the exchange regime or to move towards a floating exchange rate regime. The decision was made by President Cardoso, who decided in favor of the second alternative.

Balance of payments adjustments were not smooth in the first years after the adoption of floating exchange rates. Nevertheless, even though a "crisis mood" prevailed at that time, and at least two episodes of sudden stop in capital inflows took place, in 2001 and 2002, the liberalizing strategy for the capital account was not abandoned.[12]

The period after 2002 was, in contrast with the immediate past, marked by stable capital flows. The Argentine crisis of 2001/2002 and the first election of President Lula da Silva in 2002 represented the last tests to which the new monetary and exchange rate domestic architecture was submitted. From that time on, increasing foreign capital inflows seems to have encouraged the Lula administration to proceed with capital account liberalization. In the new phase, new measures were adopted, among which the most important are: i. the unification of the exchange market; ii. the elimination of limits to dollar positions held by domestic banks; and iii. the end of the requirement that exporters should internalize their dollar revenues (called *cobertura cambial* in Portuguese).

The unification of the exchange market[13], in March 2005, was simultaneous with the permission for residents to freely transfer financial resources abroad, revoking thereby the rules connected to the CC5 account, which was extinguished. Thus, only a few marginal restrictions were left in the book in respect to placements abroad, mainly related to investments of institutions investors. These institutions are regulated by specific dispositions, which have also been made more flexible lately.

The second measure was, in some respects, a consequence of the first. Under floating exchange rates, to the extent that the rate is really left to float freely, with only occasional intervention by the Central Bank[14], the role of *market maker* was shifted

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[12] On the contrary, some additional decisions were made in the same direction, such as accepting current account convertibility, as set by Article VIII of the IMF's Articles of Agreement, effective November 1999. (Franco e Pinho Neto, 2004, pg. 22).

[13] Actually, they both were floating rate markets. Nevertheless, access was segmented according to type of payment, besides some differences of rules applying in each market.

[14] A detailed analysis of these interventions is provided by Souza (2005).

from the monetary authority to banks. In order to perform this role, banks needed to keep a bigger inventory of foreign currencies than before. For this reason, the Central Bank decided to eliminate the (low) ceilings it used to impose on the foreign currency reserves held by banks in January 2006. Thus, one of the last remnants of the Central Bank's monopoly of foreign exchange was eliminated and the decision to hold or not foreign currency in their portfolios became one of the major elements of banks' financial strategies, introducing a new element in the set of determinants of the exchange rate.

Finally, in August 2006 a process was initiated that was ultimately to lead to the extinction of the last pillar of the exchange control regime created in the 1930s: the mandatory internment of export revenues. [15] The CMN at first reduced the requirement to 70%, but kept reducing it until it reached 0%, in March 2008, so that exporters also now face the choice of internalizing or not their revenues in foreign currency, increasing still further the power of the "market" in the determination of the exchange rate.

In sum, in the first years of the new millennium, the exchange control structure created in the aftermath of the Great Depression was dismantled brick by brick. Market considerations tended increasingly to prevail over policy design so that the exchange rate became more and more a market-determined price. This change was strengthened by the development of derivative contracts and by the issuance of public debt securities indexed to the exchange rate in moments of fragility in the balance of payments, which opened a wider field of possibilities for arbitrage operations. The enlargement of the market for foreign currency, on its turn, shaped the way the floating exchange rate regime was to operate, something to which we will return later.

To evaluate the performance of the exchange rate regime it is important to keep in mind that if capital account convertibility took a somewhat long time to be completed, the decisive changes took place in the early 1990s. There is enough experience with a liberalized foreign currency market to at least allow some hypothesis to be raised on the efficiency of these arrangements. To do this assessment, it is convenient to divide the period in two sub-periods. The first goes from the Asian crisis to 2002, and is

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[15] Before those changes, it was necessary for the exporter to internalize revenues before being able to remit money again through the other facilities that were mentioned. The process, of course, was much more expensive, involving paying taxes, fees, etc, than the alternative of simply depositing the revenues in a foreign financial institution.

characterized by a combination of domestic fragilities and a turbulent international environment. The second period covers the post-2003 years, when both the domestic and the international pictures become much more favorable.

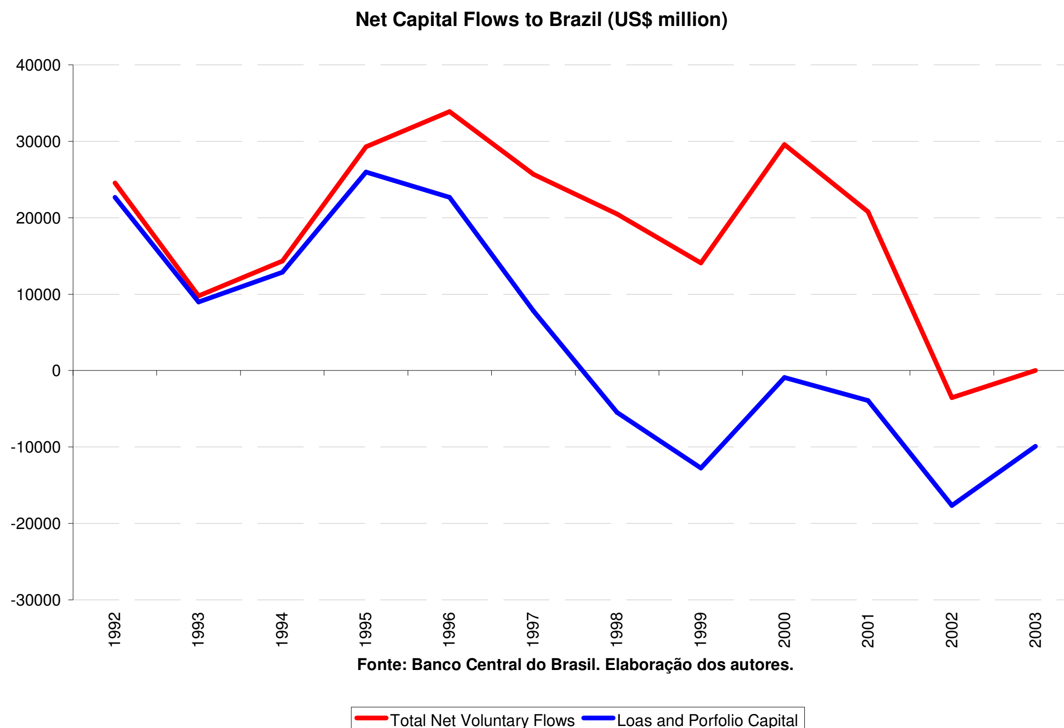
ii. Financial Integration and Volatility: 1997-2003

It was shown in section 3, table 6, that capital inflows were much increased as a consequence of the permission granted to foreign investors to participate in domestic securities markets. These capital inflows gave an important contribution to the success of the Real Plan, allowing the government to make a credible commitment to the maintenance of an exchange rate anchor. Other possible benefits, such as the absorption of foreign savings or the push to increase domestic productivity, are much more controversial. The appreciation of the local currency induced by capital inflows seemed to substitute foreign for domestic savings rather than increasing the total pool of savings (Bresser Pereira and Nakano, 2002). On the other hand, if an appreciated exchange rate helped to increase productivity by cheapening imports of capital goods, it also caused a severe loss of competitiveness in the manufacturing sector.[16]

But the appreciation of the domestic currency does not exhaust the impacts of the new exchange rate regime on the Brazilian economy. It is important to consider, in this period, also the impacts of the increased volatility of variables such as exchange rates and capital flows. After an initial period in which benefits from increasing access to capital flows seemed to outweigh losses, a new stage began marked by a greater scarcity of capital and volatile capital flows, including a few *sudden stop* or even downright capital flight episodes. Graph 1 shows that in the aftermath of the Asian crisis net inflows of voluntary capital[17] decrease and become negative in some years. Loan flows and portfolio investments were particularly hit, in contrast to direct investment where momentum was maintained by the continuity of the privatization process in the 1990s.

[16] To have an idea of the debate between those defending the view that exchange rate appreciation helped to increase productivity and those pointing to the opposite result, see Pastore (2008) and Gala (2009).
[17] Voluntary capital flows are obtained by subtracting from total flows those of compensatory loan made by the Monetary Authority.

Graph 1



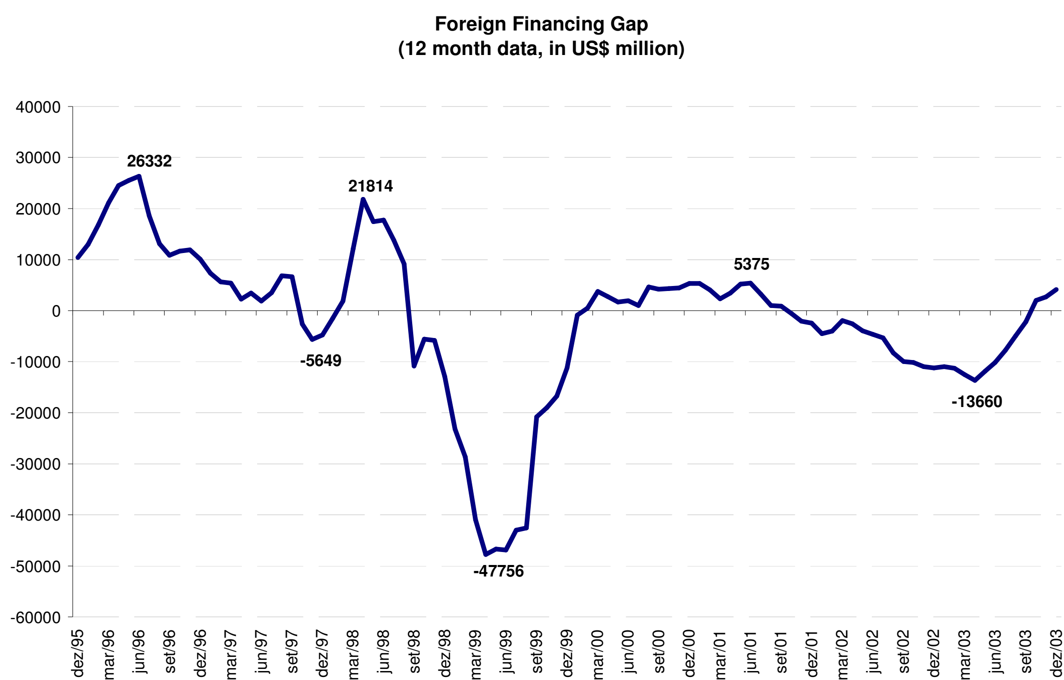
To evaluate the magnitude of the macroeconomic impacts of sudden stops and capital flight, beginning with the Asian crisis, one needs to consider also what happened with the current account. While capital inflows expanded, the appreciation of the real led to an increase in current account deficits, the peak of which was reached precisely when capital inflows dried down. As a result, financing gaps emerged to which there were no willing lenders in the international financial system.

Graph 2 shows data for accumulated financing gaps in twelve months (measured as the difference between the net flow of voluntary capital and the deficit in current account) between 1995 and 2003. One can see that the financing gap has remained very high for extended periods of time. The most critical moment, doubtlessly, was the time around the exchange rate crisis (twelve months to April 1999), when the cumulative gap reached about US$ 48 billion.

The wide fluctuations in external financing were transmitted to domestic macroeconomic variables through a mechanism that can be stylized as follows: the contraction or standstill of capital inflows made foreign currency scarce, forcing either a

loss of reserves and/or a strong devaluation of the *real*. The Central Bank then raised sharply domestic interest rates to stop the loss of reserves or to contain the inflationary consequences of the currency devaluation. Rising interest rates caused then a recession. Since these shocks were frequent, the whole economy became volatile, shortening the duration of economic cycles.

Graph 2



(1) Nel Voluntary Capital Flows less Current Account Deficit.
Source: prepared by the authors, on the basis of Cental Bank Data.

Both financial and non-financial firms had to struggle to survive in this hostile environment. As a result, markets for derivatives and other hedging instruments thrived. Excess volatility in the late 1990s, however, ultimately distorted the operations of these markets forcing the government to act intensely to contain exchange rate movements in future markets. What resulted was a situation in which private agents could find protection against strong exchange rate changes caused by a contraction in capital inflows in the dollar-linked securities issued by the government who assumed the exchange rate risk. The government exposed itself to exchange rate risks supplying private investors with an almost unlimited hedge against balance of payment

disturbances. The price of this arrangement was the quick and deep deterioration of the fiscal position in crisis times (Cf. Carvalho, Silveira e Souza, 2008).

The peculiar allocation of exchange rate risks between private and public sectors allowed the economy to sail through moments of balance of payments difficulties without more serious damages, since private agents' balance sheets were preserved. However, the deterioration of the fiscal position of the federal government worsened the evaluation of the Brazilian economy' perspectives by foreign investors, increasing the risk primes of loans to Brazilian borrowers and reducing credit to the country, deepening the balance of payments problems. To improve its perspectives, the federal government cut expenditures or increased taxes, causing the economy to contract. The volatility of the Brazilian economy was thus amplified by a fiscal pro-cyclical policy.

iii. Financial Integration, Exchange Rate Appreciation and Loss of Industrial Density: 2004 to?

As the 2000s went by, some important institutional changes, as well as overall improvements in the economy, made it possible to overcome or attenuate the degree of instability characteristic of Brazil's recent growth patterns, as just described. A central element of the new picture was the contraction of Brazil's external debt made possible by the accumulation of currrent account surpluses in the aftermath of the balance of payments crisis of 1999. The ratio between net foreign debt to total exports fell from 3.6 in 1999 – which put the country in the category of "severely indebted" in the World Bank classification – to a net creditor position in 2007, as can be seen in table 13. A parallel improvement in fiscal solvency also marked the period.

Table 13

Reserves, Net External Debt and Current Account

Year	International Reserves (US$ Billion)	Net External Debt/Export of Goods	Current Account Balance/GDP (%)
1999	36,3	3,6	-4,3
2000	33,0	3,1	-3,8
2001	35,9	2,8	-4,2
2002	37,8	2,7	-1,5
2003	49,3	2,1	0,8
2004	52,9	1,4	1,8
2005	53,8	0,9	1,6
2006	85,8	0,5	1,3
2007	180,3	-0,1	0,1
2008	206,8	-0,1	-1,8

Source: Banco Central do Brasil, "Nota para a Imprensa do Setor Externo" and "Indicadores Econômicos Consolidados".

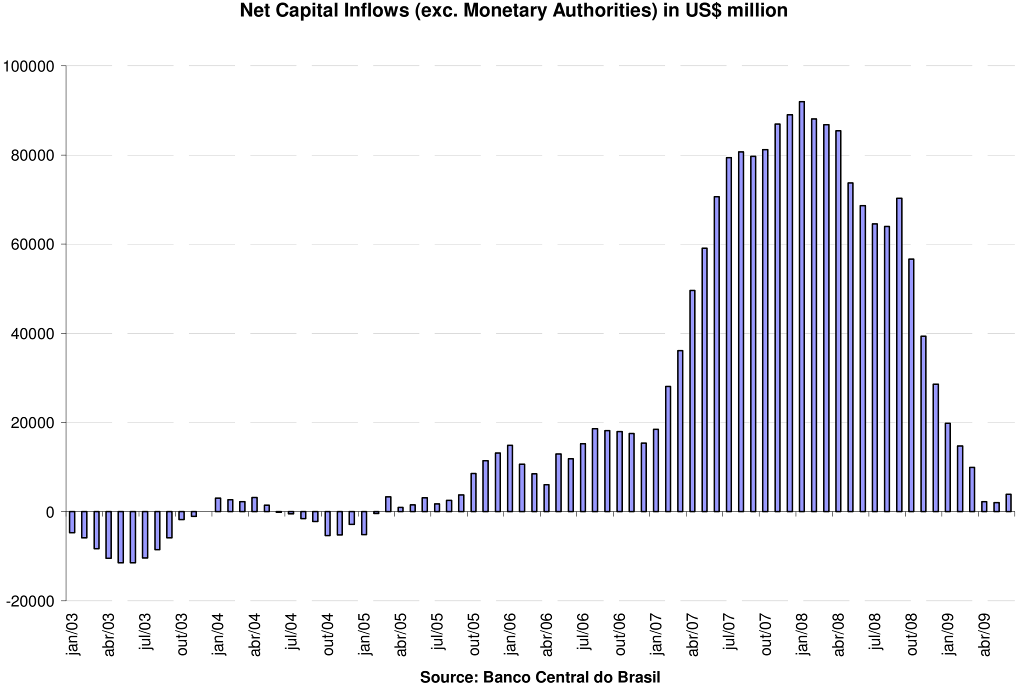
As fragility factors were removed, macroeconomic volatility fell substantially. Interest rates, for instance, fell to unheard of levels in the last fifteen years, even though they still remain above international standards. In the new circumstances, the Brazilian economy seemed to begin growing in a sustainable way for the first time in more than two decades.

It should not be surprising that foreign investors became enthusiastic about the economy's perspectives. Reaching investment grade in 2008 was at the same time an indication and a strengthening factor of these tendencies. Accordingly, capital inflows grew in size and became more stable, as it is shown in graph 3. This picture lasted until the last quarter of 2008, when the shock waves generated by the failure of Leman Brothers finally brought the international crisis to Brazil. A byproduct of the newly reached good times, however, was the sustained appreciation of the real[18], again, not only with respect to the US dollar but also in reference to a varied basket of currencies, as shown in graph 4. In September 2008, the effective rate of exchange was 42% above its level in the first semester of 2004[19].

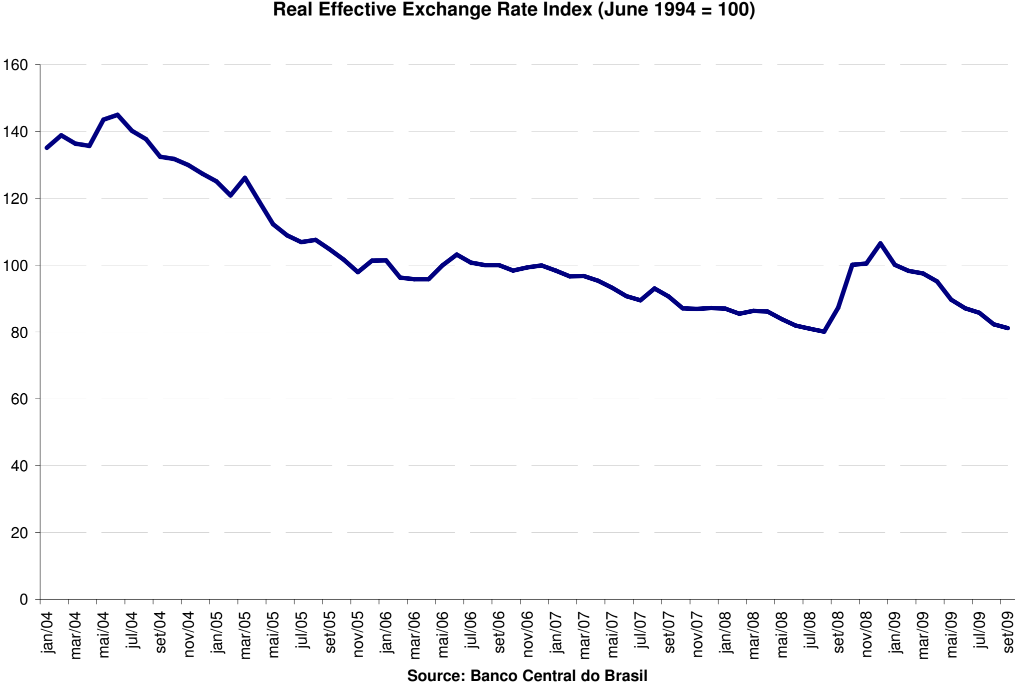
[18] Many analysts confer a decisive role to current account elements in the explanation of the behavior of the exchange rate. Even if these factors had performed in the way these analysts assumed, it is important to point out that even when the current account balance was reduced in 2007 and 2008, the appreciation of the real was not stopped or reversed. In fact, it became stronger, suggesting a decisive influence of the capital account.

[19] Measured by the fall in the value of a basket of currencies with respect to the real. If we measure it by the increase in the value of the real with respect to the basket of currencies, appreciation is set in 71%.

Graph 3



Graph 4

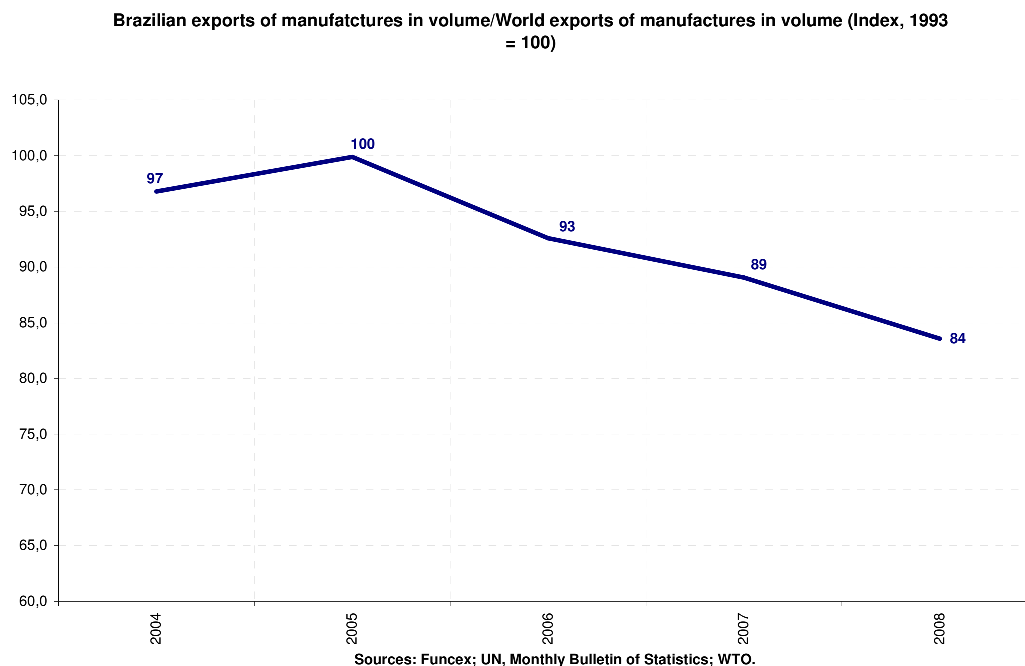


All things considered, one cannot avoid qualifying the apparent virtuous circle installed in the country in recent years. What seems at first sight to be a continuous process of economic expansion initiated in the second semester of 2003 is in fact a process in which a fundamental change is occurring both in growth patterns and in the mode the Brazilian economy is integrated in the world economy. The appreciation of the real has made exports, and especially exports of manufactured goods, to lose impulse. The manufacturing sector also lost competitiveness with imported goods in the domestic market. The apparently paradoxical coexistence between growth and loss of competitiveness was in fact made possible by the vigorous expansion of domestic demand sustained by the strong growth in the credit supply described in section 3.

To put it in more concrete terms, if net exports' contribution to economic growth is increasingly negative, only a strong expansion of domestic demand can sustain growth. The strong expansion of domestic demand in itself is, of course, to be desired, but if its rate of growth is higher than that of GDP, year after year, the result is an increasing deficit in the ratio of current account do GDP. The first indications that this is currently happening are already visible in the last line of table 13, above.

Growth patterns are also changing when looked at from the supply point of view. The structure of production, and, again, especially of exports, are being transformed, as manufacturing production and exports lose importance in comparison with foreign competitors, due to the exchange rate appreciation. Since 2005 Brazilian exports of manufactured goods have stagnated, when measured in volume, despite the fact that international trade in this class of goods had expanded continuously until it collapsed in the last quarter of 2008, under the weight of the world recession. The rather obvious consequence of these developments is the loss of market share in world markets, as shown in graph 5.

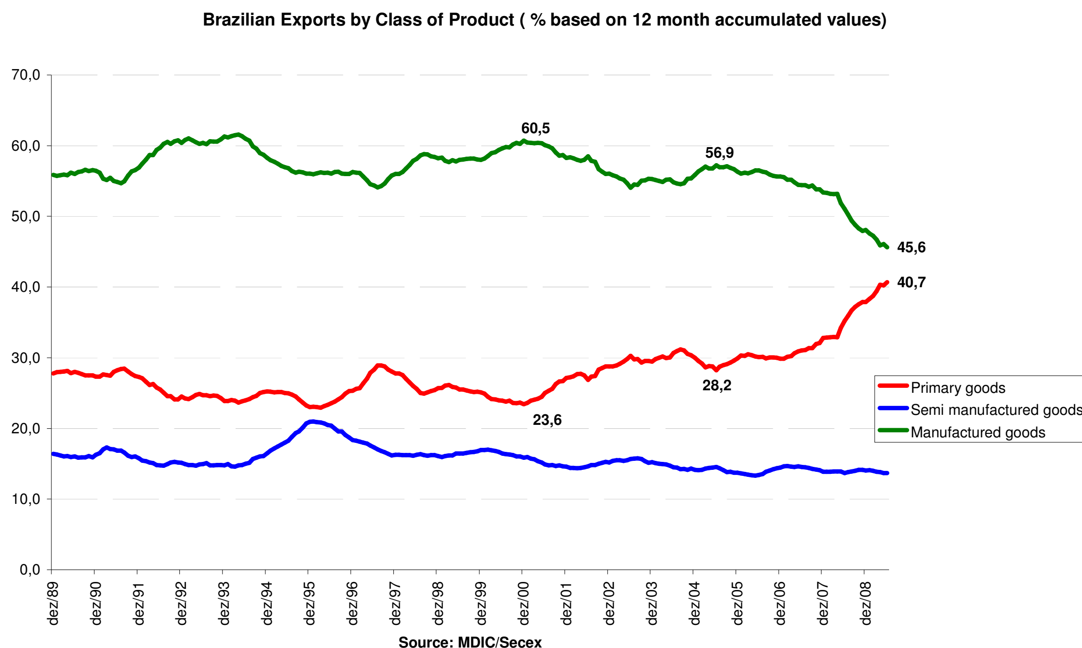
Graph 5



Not only Brazil has been losing space in the international market for manufactures but this class of goods is also losing room in total exports of the country, as can be seen in graph 6. In addition, the degree of diversification of exports is also decreasing[20], making the country potentially more vulnerable to changes in world demand patterns. All together, these trends imply a reduction of the share of the manufacturing sector in Brazilian GDP, while mineral exploration and exports expand theirs.

[20] For a detailed account of this subject, see Souza (2009).

Graph 6



The changes just described are in their initial stages. They are strengthened, however, by developments taking place outside Brazilian borders. The most important factor, of course, is the rise of China in world GDP and international trade. China is a great exporter of manufactures (pushing their prices down) and a great importer of commodities (pushing their prices up). China's role is not new, but the amplitude of its impact is.

All the elements discussed in this section join up to draw a dangerous picture for the future development of the Brazilian economy. In the next few years, because of the likely return of the external vulnerability associated to rising deficits in the current account. In a longer view, because the eventuality of an excessive degree of specialization in exports of commodities could make its balance of payments volatile, dependent on changes in the terms of trade.[21] Finally, because an excess degree of specialization in the production of a few goods can affect negatively the dynamism of a large economy like Brazil's.

[21] Carvalho, Silveira e Souza (2008) have shown how the process of diversification of Brazilian exports that took place mainly between the mid 1960's and the mid 1980's have made the balance of payments as well as the growth of the economy very little sensitive to changes in the international prices of commodities since then.

The competitiveness of Brazil in the face of foreign competitors cannot be left to the whims of international financial investors. [22] That their influence is as important as it presently is bears witness that there is something wrong with the economic policy regime, and, in particular with the exchange rate regime. Nevertheless, the fact that under this policy regime the country has been able to maintain low rates of inflation and a productive performance that is far from the brilliance of Asian countries, but is no longer stagnating as it happened in the last twenty-odd years, has prevented the serious consideration of alternatives. A certain degree of disenchantment with the "heterodox" policy experiments of the past weighs in the same direction.

5. Conclusion

The performance of the Brazilian economy since the Asian crisis can be summarized as a version of the Goldilocks economy: neither too hot, nor too cold. Unfortunately, however, it would be excess optimism to add that it was "just right". Brazil's recent past has been characterized by its inability to accelerate growth not only as other leading emerging economies have done (and, in fact, Brazil itself has done from the end of World War II to the late 1970s) but also by its resilience in the face of a serious international crisis such as the one the world is suffering now. A major scourge, high inflation, was removed by the successful Real Plan of 1994, but ending inflation failed to bring with itself the recovery of economic growth and economic development.

Paraphrasing Keynes, the implications of the analysis proposed in this paper are partly optimistic, partly less optimistic (not to say pessimistic). The economy seems to have found a new growth path, if at lower levels than in the past or compared to other emerging economies. In addition, it is most important to add, although it was a subject of this paper, that growth recovery was achieved in parallel with an effort to address a long and deeply rooted problem of Brazilian society, which is the problem of persistent large-scale extreme poverty and a badly skewed profile of income distribution. In fact, many analysts attribute to the Family Grant program a prominent role in maintaining

[22] From May to August 2009, amidst a growing euphoria regarding the end of the crisis – and, particularly, a renewed international optimistic mood with respect to the Brazilian economy – there has been a net inflow of US$12,4 billion in foreign capital to the São Paulo Stock Exchange. This was by far the largest component of the capital inflows in the period and coincided with a 15% appreciation of the real.

domestic demand high in the country while it absorbed the shock waves coming from the international crisis.

But it is certainly *not* the time for self-congratulation. As we tried to show, if there are reasons to be confident that conditions have not been as favorable to the resumption of development as they may be now in a long time, particularly in the domestic institutional front, there also many reasons for concern.

The main risk the country's economy faces resides in its inability to counter the perverse effects of the new exchange rate regime adopted in 1999. It is widely accepted that developing economies can hardly support fixed exchange rates and even crawling peg regimes may face great difficulties. Floating exchange regimes, on the other hand, particularly in combination with high domestic interest rates, can be a deadly combination. In the case of Brazil, we tried to show that this is not a generic warning, but it is already causing perverse trends to emerge, in the structure of production and exports, that may end up costing dearly to Brazilian society.

A secondary theme has been that the almost unique strength of the domestic financial system of Brazil among emerging economies, particularly in Latin America, may well be tested in the near future as reliance on investments in public securities is gradually replaced by the expansion of credit to private borrowers. The domestic banking system has evolved rapidly even during the high inflation period. Sheltered from the threats of dollarization by the indexation of contracts, banks operating in Brazil thrived even during the periods when inflation accelerated rapidly. Now banks will face a different risk, that is, credit risk from the increasing exposure to private borrowers. It will certainly be a test both for banks and for financial supervisors, equally unfamiliar with this market configuration.

On balance, at this point, a moderate optimism may prevail. Exchange rates can be influenced by enlightened policy, although some instruments may have to be created or recreated to increase the influence of the authorities in this market. On the other hand, banks operating in Brazil have shown in the past a strong ability to innovate and adapt to new opportunities. The country is still in a long-term learning process of living

without high inflation, but so far the results, if not really brilliant, have not been disastrous either.

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