

## **BRAZIL IN THE 2000'S: FINANCIAL REGULATION AND MACROECONOMIC STABILITY<sup>1</sup>**

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## BRAZIL IN THE 2000'S: FINANCIAL REGULATION AND MACROECONOMIC STABILITY

### 1. Introduction

The turbulences that hit repeatedly the international economy in the second half of the 1990s caused much damage to the Brazilian economy. A few months after the country achieved 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 fast-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 were added to 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, plus the failure of a large number of medium and small financial institutions. In parallel to these developments in the private banking sector, two of the largest state-owned banks in the country were also in dire straits and suffered intervention by the Central Bank, although for different reasons.

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 balance of payments crisis of late 1998/early1999, which led to a change in the macroeconomic policy regime. The main rules of the policy game adopted then remain fundamentally in force to this day.

The 2000s have generally been more generous to Brazil. Except for a more limited balance of payments crisis in 2002, generated by political/electoral factors, no major turbulence hit the country until the last quarter of 2008, when the international crisis finally arrived to Brazil. The impact of the crisis was strong but relatively short-lived. After a two-quarter recession, the Brazilian economy resumed growth by the second quarter of 2009, which accelerated in 2010. Except for the brief recession, in contrast to the previous two decades and a half, growth rates have risen consistently since 2003,

raising, especially by the second half of the present decade, increasing and widespread optimistic expectations. Right or wrong, it is increasingly believed that the long period of stagnation that defined the economy's prospects from the beginning of the 1980s to the early 2000s has finally been shelved.

But rates of growth were low at first. Low growth seems to find an immediate cause in the low rates of investment that have been characteristic of the Brazilian economy for so long. While high inflation was the most obvious culprit until 1994, when price stabilization was achieved, low growth following the Real Plan has been ascribed mostly to the combination of overvalued exchange rates with excessively high domestic interest rates characteristic of the period. Why has so lethal a policy been maintained throughout the post-stabilization period? Liberal economists tend to explain it by pointing to low propensities to save both by the private sector 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. Still, some other economists blame more microeconomic factors, such as the lack of, or inconsistencies in, industrial policies, or excessive degrees of concentration in the financial industry. Nevertheless, there are strong indications that higher (although still much lower than in countries like China or India) rates of growth are within reach, and the international crisis seems to have interrupted this trend only temporarily. In this context, the combination of high domestic interest rates and overvalued exchange rates is invested of strategic significance because of its potentially negative impact on both domestic investment and exports.

It is not our intention to contribute directly to the debate on the causes and characteristics of economic growth in Brazil. 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, at least in part, by reference to the rules of financial regulation in force in the country. It has often been noted that a peculiar feature of the Brazilian financial industry is its strength, almost unique in the continent, and the solidity of its public and private domestic banks, which have long dominated the sector and still do. Nevertheless, financial vigor and strength have not translated satisfactorily, so far, into strong support for economic growth.

In principle, financial regulation should affect the behavior of the macroeconomy of Brazil through two channels: (i) domestic financial regulation, particularly of a prudential nature, may affect the volume and distribution of credit and of hedging instruments among public and private borrowers; (ii) capital flows regulation may heavily influence the ways and terms of local borrowers' access to external *and* domestic sources of finance. The behavior of financial systems is also of interest because it directly affects systemic safety, against both domestic financial crises and balance of payments crises and for its impact on wealth distribution, although the latter point will not be explored here.

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 present (late 2010). Section three will examine in more detail how the behavior of the Brazilian financial sector contributed to the performance described 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 After 1998: An Overview

The Asian crisis began in mid-1997 and represented a serious threat to the Real Plan. The 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, from crawling peg to float, uncertainty rose dramatically, which led many analysts to predict the return of high inflation, feeding a negative expectations of the public. Nevertheless, the policy regime put in place 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, as well as for the post-crisis period.

Table 1

Selected Macroeconomic Indicators for the Brazilian Economy						
Period (quarters)	Rate of Growth of GDP (% <i>at annual rates</i> )	Rate of Growth of Investment (% <i>at annual rates</i> )	Rate of Inflation (CPI, % <i>at annual rates</i> )	Trade Balance (US\$ billion, <i>at annual rates</i> )	Central Bank Target Interest Rate ( <i>Period Average</i> , %)	
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	
IV/08-I/09 (Crisis)	-11,9	-42,8	4,6	16,3	13,2	
II/09-III/10 (Recovery)	7,7	24,8	4,5	23,4	9,6	

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 finally happened.

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 of mid-1998 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 visible 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 of uncertainty surrounding future prospects for the Brazilian economy, stagnated until the third quarter of 1998, after which it fell rapidly, down by 11% in the next four quarters.

Brazil signed a deal with the IMF in November 1998. The Fund became the leader of 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 floatation was adopted, the exchange rate had depreciated in 93%, raising fears that high inflation could be just around the corner. To allay these fears, the chairman of the Central Bank, rapidly negotiated a new agreement with the Fund, and raised the policy 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 US 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 supporting policy architecture was the adoption of an *inflation targeting* monetary policy regime. CMN was given the responsibility to set the target inflation rate for the relevant period and the Central Bank should 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 float freely 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. It did not take long for inflation to converge to its target. Thus, in 1999, despite the large exchange rate shock, inflation overshoot 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 *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, caused, firstly, by the end of the “dot com” bubble in the United States allied to the developments in Argentina, and then in 2002, by the confidence crisis generated by the perspective of Lula da Silva’s victory in the presidential election, revealed that vulnerability, although attenuated, was still large. The ghost of exchange rate crises returned to haunt the Brazilian economy, despite the stabilizing properties 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 resume economic growth was not the only problem with the new policy regime. Other fragilities were also important. One of the shortcomings 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, however, justifiable, it ignored the potentially large negative effects of exchange rate volatility on the real economy. These impacts will 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. 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 way before 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 balance of payments was due mainly to rather circumstantial factors that maintained the exchange rate at competitive levels. 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 <sup>1</sup>	
	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
2009	204	145	96	124,2	1,6	-1,5

<sup>1</sup> 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 often been noted that the Brazilian financial system exhibits some unique characteristics when compared to the rest of Latin America. The prolonged exposure to severe macroeconomic instability and high inflation did not cause the destruction or denationalization of domestic financial institutions. To an important extent, strong domestic banks, public and private, survived high inflation because of some fortuitous side effects of initiatives adopted for reasons that had little or nothing to do with 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 introduced to ensure the existence 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. But an equally, or more, important result, however, was that inflation-protected public securities became a domestically-issued reserve asset alternative to the usual choice of inflationary countries, the US dollar. Since access to indexed public securities was given through the banking system, dollarization was avoided and banks did not lose their share of financial transactions, as it happened in most of the region. On the contrary, the possibility of hedging against inflation by taking position in indexed securities enlarged the market for banking services by also attracting clients demanding financial protection. In fact, dealing with indexed public debt became a central element of profitability for banks, both on behalf of customers and for proprietary trading.

When price stability was reached, in 1994, banks suffered an adverse shock with the loss of inflationary revenues<sup>2</sup>, but ultimately the system showed itself to be strong enough to withstand this loss. In the immediate aftermath of the creation of the new currency, banks, anticipating the loss of inflationary revenues, had begun to shift their activities from investing in public securities to extending credit to private borrowers. The supply of credit did grow significantly in the second semester of 1994. However, by the end of that year, shock waves from the Mexican crisis (which also threatened the Argentine economy) hit the Brazilian economy. To stop a rising wave of capital flight in early 1995, the 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 assessed as dangerous enough to lead the federal authorities to intervene, through a program known by its acronym PROER. It basically consisted of facilitating, or in fact actively encouraging, the absorption of problem banks by stronger institutions (Cf. Carvalho, 1998). Problem banks were split in two parts, one of which would hold all the bad assets. Fiscal benefits were offered to potential buyers to promote mergers with the other part, as quickly as possible.

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<sup>2</sup> IBGE/Andima (1997) estimates the losses of banks with price stabilization as about 4% of GDP.

Despite much criticism, PROER was a very successful program, actually inspired by 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, which was a distinct possibility in 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 state governments of São Paulo and Rio de Janeiro, suffered intervention by the Central Bank by the end of 1994. Both were later privatized. Ownership of banks by federal states had long been a problem. State governments used to get indebted with these banks to spend beyond the limit set by availability of tax revenues, which forced the Central Bank to create enough reserves to keep banks afloat when those loans defaulted, as it frequently happened. For all practical effects, reserves were determined endogenously 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 applied 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, mostly large landowners, regularly defaulted in their loans, but the bank was prevented from demanding repayment 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 a Credit Guarantee Fund (CMN's Resolution 2197), to extend insurance over a large number of financial institutions' liabilities. The Fund currently guarantees 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 financial institutions to the value of 0.0125% of the balances covered by insurance. It is somewhat difficult to evaluate the contribution to financial stability given by CGF since long 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, a testimony to the confidence of the general public on the willingness of the Central Bank to backstop the system.

At the dawn of the price 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, which had imposed narrow limits to the operational freedom of banks in the past, had been softened since the late 1980s. In particular, 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. The removal of these types of restrictions did not have a deep impact though. Financial conglomerates already populated the landscape of the sector by the end of the 1980s and the formal adoption of the universal bank model in 1988 was rather a legal acknowledgement of a *de facto* situation than a meaningful reform initiative. On the other hand, 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, by the end of the 1980s, 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, the best chance to increase profits was to be found in improving efficiency in the 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 rapidly than expenditures), had to make sure that there would always be a market for its securities. 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 remained 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 dissipate. 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, only confirmed these expectations.

Financial stability would again be tested during the balance of payments crises of 1998, 2002 and, with particular force, in 2008, when Brazil suffered the contagion effects of the international crisis generated the year before in the United States. In all of these episodes, damages to the financial sector were contained before any long-lasting scar emerged. The 2008 crisis, in particular, had only limited impact on the domestic banking system, which was not exposed to subprime mortgage risks in contrast with banks in Europe and Asia. 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 had 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 interbank 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 purpose of purchase of loan portfolios held by banks in difficulties by healthy banks. 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 credit by private 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 again working at their normal pace.

#### 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 had required banks to maintain minimum *absolute* levels of capital, depending on the nature of the institution, its geographical location, etc. The novelty of the Basel agreement was to make capital coefficients variable according to the degree of risk to which banks were exposed 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, were assigned 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, however, the Basle Committee for Bank Supervision 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 required 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*<sup>3</sup>, setting some general principles to orient 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 for national regulators. Market pressures, for emerging economies, as well as active prodding by multilateral institutions, such as the IMF and the World Bank, were crucial for the rapid transformation of the 1988 Basle Accord from a document of interest restricted to the G 10 regulators who designed it toward the undisputed rulebook it had become by the late 1990s.<sup>4</sup>

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.<sup>5</sup> 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

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<sup>3</sup> Which are know simply as Basle Core Principles.

<sup>4</sup> The main instrument to pressure developing countries into compliance with Basel I was the Standards and Codes program pursued by both the IMF and the World Bank. In the S&C program, adherence to Basel I was the main criterion to establish the quality of national financial regulation. For information about the Standards and Codes program cf. <http://www.imf.org/external/standards>.

<sup>5</sup> 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](http://www.democracyandfinance.org.br).

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 significant resistance from the industry. In fact, most banks have maintained actual capital coefficients that are significantly higher than the required 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 compliance 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 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 1990. In that occasion, operations in that market (and in many others, in fact) were heavily disturbed 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. In 2009, credit expansion was resumed and, as this work is being written (November 2010), is still going on.



## ii. Basel II and Beyond

In June 2004, the Basel Committee posted the text of a new Accord, that had been in negotiation for a few years. 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 a 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 *not* be based, as proposed by Basel Committee, 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.<sup>6</sup> On the other hand, special attention has been dedicated to operational risks, generating some complaints from banks that the Central Bank demands 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. Roughly half way in the process, however, the international financial crisis made room for new regulatory demands. The Basel Committee began in 2009 to work on wide-ranging changes to Basel II, a process basically completed in October 2010, when the governors of the Committee approved a new set of proposals, which became known as Basel III.<sup>7</sup>

Not directly relevant to financial regulation in Brazil, but still important, are the financial reform passed by the US Congress and signed into law by President Obama in July 2010 and the initiatives under debate in the European Union. Although lacking the endorsement of an international entity such as the Basel Committee, those initiatives signal changes that may be demanded in the future, in case the United States and/or the European Union decide to push for the restoration of a “level playing field” in today’s globalized financial markets.

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<sup>6</sup> 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>

<sup>7</sup> A final word on Basel III is expected to be issued by the leaders of G 20, in their November 2010 meeting in Seoul.

Basel III will certainly be implemented in Brazil in some form, despite protestations by the chairman of the Central Bank that financial supervision in the country is already tough enough. His strongest argument is the relatively smooth performance of the Brazilian banking system during the crisis, in contrast to what happened in the United States and the European Union. Nevertheless, as one of the new members admitted into the Committee as a result of the crisis, local regulators will be subjected to intense pressures to adopt the new rules.

Basel III's basic elements are: (i) a general increase of required capital coefficients, particularly in relation to assets exposed to credit *and* market risks, as it is the case with securitized and re-securitized assets; (ii) creation of a leverage ratio, to limit banks' leverage without regard to risks associated to specific classes of assets; (iii) creation of liquidity requirements, both for market liquidity and funding liquidity; (iv) creation of additional capital coefficient requirements to serve as buffers against cyclical changes and increases in systemic risk; (v) narrowing the types of items to be considered as capital for regulatory purposes, focusing regulatory demands on *core tier 1* capital, meaning essentially capital and reserves; and (vi) demanding that derivatives be registered and traded in clearing houses, reducing the opacity of over-the-counter deals.<sup>8</sup>

As it happened with Basel I and II, these new requirements should be seen as a *floor*. Individual countries are strongly stimulated to build on these initiatives to create new demands that could improve the stability of their domestic banking systems. The United States had already announced their intention to do so. Switzerland in fact announced capital requirements that go beyond the ones suggested by the Committee. In fact, the Committee's work itself is not entirely done yet. Since the beginning of the financial crisis, many regulators and other authorities have been insisting on defining tougher demands on institutions considered to be *systemically important*, that is, capable of generating systemic crises. These institutions should be the target of additional demands, inaugurating what some analysts called *macroprudential* regulation, as opposed to traditional *microprudential* regulation.<sup>9</sup> The latter relied on the principle that healthy individual banks make up for healthy banking systems. Macroprudential

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<sup>8</sup> The documents that contain the proposals are: BCBS (2009a), (2009b), (2009c), (2009d), (2010a), (2010b) and (2010c).

<sup>9</sup> See, among others, Brunnermeier et alli (2009).

regulation would consider the interrelationships between institutions and the ways and means by which distress in specific institutions or markets spread throughout the financial system, leading to financial collapses.

The most important obstacle to creating a body of macroprudential regulation has been the difficulty to define what does *systemically important* mean. For some, it is a question of size so that the problem of systemic crisis is the same as the problem of moral hazard involved in the too-big-to-fail debate. But many other analysts consider this approach as too narrow and simplistic. Certainly banks like Bear Sterns or Lehman Brothers could hardly be judged too big to fail. Systemic importance may in fact relate to other factors, such as, for instance, the degree of interrelationship with other institutions. Alternatively, it is arguable that any financial institution may trigger systemic crises if its failure could shake to a significant extent the confidence of the public. The Basle Committee has postponed the announcement of specific measures to deal with systemic institutions, markets or instruments until it can figure out what will be the appropriate definition to use.

What will Basel III mean to the Brazilian banking sector? So far, the Central Bank of Brazil has denied that compliance with Basel III will cause any trouble. It is argued that capital coefficients practiced in the country are already way above what is being proposed, so no hardening of requirements would be really necessary. In addition, some of the problems that the Committee is belatedly discovering have already been monitored by the Central Bank, as, notably, liquidity risks. Securitization is still incipient and ressecuritization is even more limited, so it should not be particularly difficult to contain the growth of these practices and to impose effective safety measures.

One interesting point that seems to have been ignored by the Committee in its work of revision of rules was the assumption shared by its participants that emerging and developing economies should impose higher demands on their banking systems because they were assumed to be inherently more risky than the ones in advanced countries. The financial crisis has obviously falsified this proposition, although it should not be taken as evidence of the opposite, that is, that financial sectors in developing economies are actually safer than the ones in the advanced economies. What the evidence suggests is

regulation in practice can be much laxer than it looks in paper, and that sophistication in financial systems may be at most a mixed blessing particularly when financial supervisors are complacent. Under these circumstances, it is not to be expected (or accepted, probably) that emerging and developing economies should automatically impose higher capital coefficients or any other requirement than advanced economies. In fact, because of their systemic importance in the international economy, it is the advanced economies which should adopt the toughest standards. This is an unavoidable implication of the new concern with systemic elements in financial crises.

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, which could probably be extended also to Basel III. 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 a lot to do with the low exposure to private borrowers and not only to the efficiency of its risk management practices and precautions taken by the supervisor. It is necessary to wait until the Brazilian banking system consolidates 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.

### iii. Regulation in Securities Markets

In line with the general approach accepted almost universally until at least the 1998 LTCM episode, regulation of Brazilian securities markets was not targeted at containing systemic risks, but, rather at protecting the integrity of markets. Traditionally, systemic risks were not supposed to be involved in financial activities unless the banking system was affected. Therefore, regulation should be directed at the preservation and improvement of existing securities markets, promoting transparency, 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.<sup>10</sup> 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.<sup>11</sup>

Regulation and supervision of securities markets in Brazil followed the traditional model, disregarding systemic concerns and investing in the creation of rules and procedures aimed at protecting 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 high inflation, which plagued the Brazilian economy until the mid-1990s were significantly attenuated, the concern with developing the 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.<sup>12</sup>

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

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<sup>10</sup> CGFS (1999) is an early but very interesting debate of the possibility of systemic crises being generated in securities markets.

<sup>11</sup> Cf., for instance, Brunnermeier et alii (2009), Carvalho (2009).

<sup>12</sup> An excellent discussion of the measures taken to revive domestic securities markets, including the creation of the local version of the SEC (known as CVM) is given in Sarno (2006).

the largest firms, were mostly family interests, whose priority of interests was guaranteed by the almost exclusive issuance of preferential shares, which did not allow share-owners to vote and have an influence on firms' management. Accordingly, arrangements were made to create the New Market, at the São Paulo Stock Exchange which is the main stock exchange in the country, to attend the demands of more discriminating investors.

A strong push upwards 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 on stock exchange transactions, an exemption 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 special-purpose institutions. 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.<sup>13</sup> 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 some of the regulatory changes listed above, 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 already mentioned, 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. If they were not, they had to appeal to informal sources, such as the entrepreneur's personal credit, or to loan sharks. Generally, businessmen chose to reduce the use of borrowed resources to the bare minimum. The only significant local source of finance 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. From 1995 to 1999, a sort of crawling peg exchange rate regime was applied in the country. Under fairly advanced capital account liberalization, it is known that such exchange rate regimes set up a high floor to domestic interest rates. Given risk assessments and expectations of exchange rate changes, domestic interest rates have to be set at the level which make international investors indifferent between financial placements in the country and abroad. Risk assessments about the immediate future of the Brazilian

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<sup>13</sup> 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.

economy tended to be severe in that period, causing local interest rates to settle around very high levels. After 1999, this constraint was relaxed to some extent by the adoption of floating exchange rates, but other factors contributed to keep 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 that change too was interrupted by the 2008 recession. Again, by 2010 the interest rate seems to be slowly resuming its past-crisis path, thanks to an overcautious Central Bank monetary policy.

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. What could be compared to the subprime market in the United States is attended in Brazil mostly by public institutions, not by private finance.

Some of the securitization reforms that are being introduced do not yet 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 this type of fund 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.

#### iv. 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 control practically every single segment of overall financial markets. As of June 2010, among the ten largest banking groups operating in the country, one would find two institutions owned by the Federal Government (occupying positions 1 and 5), one private bank half-owned by Banco do Brasil (at position 7) four private domestic banks (in positions 2, 3, 8 and 10) and three foreign groups (positions 4, 6 and 9). Each one of the three largest banks, Banco do Brasil, Itau and Bradesco, is more than ten times larger than the tenth bank, Banrisul, measured by total assets.<sup>14</sup>

Overall, 2,339 institutions were authorized to operate by December 2009, of which 139 were universal banks, 16 were investment banks and 4 were development banks.<sup>15</sup>

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.

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<sup>14</sup> Data about the largest banks operating in Brazil, from <http://www4.bcb.gov.br/top50/port/ArquivoZip.asp>, Downloaded November 5, 2010. The list no longer includes, as it did in the past, the National Development Bank (BNDES).

<sup>15</sup> [http://www.bcb.gov.br/htms/deorf/r200912/T1ES\\_Quadro%2001%20-%20Quantitativo%20de%20institui%20autorizadas%20a%20funcionar.pdf](http://www.bcb.gov.br/htms/deorf/r200912/T1ES_Quadro%2001%20-%20Quantitativo%20de%20institui%20autorizadas%20a%20funcionar.pdf)

It was already pointed out 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, however, also required responding properly 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.

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, in the early 1990s. Medium and small businessmen 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, many banks 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 financial institutions 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 rooted in the domestic economy. The first election of President Lula led to a confidence crisis 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 (end of year) as a Share of GDP (%)

Year	Activity Sector					Institutional Sector		TOTAL
	Manufctg	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
2009	9,7	2,9	3,6	4,3	14,7	1,9	43,1	45,0

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

[www.bcb.gov.br](http://www.bcb.gov.br)

As shown in tables 3, 4 and 5, the acceleration of economic growth from 2004 to 2009 was supported by a strong expansion of financial markets. The credit-to-private-borrowers/GDP ratio increased rapidly, from 27% in 2005 to 43% in 2009. The ratio

could have been even higher if the country had not endured the shock caused by the international crisis in the last quarter of 2008. In fact, although data for 2010 GDP is, of course, not yet available, one can expect another increase in the credit to GDP ratio, as total credit supply increased 14% from December 2009 to September 2010, the latest information available in the Central Bank website, while GDP is estimated to grow up to 7.5% in 2010.

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. However, both markets, for new shares and for new debt securities, seemed to have recovered since then.

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 al (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, must be interpreted carefully. 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. This was still the case in 2009, after the brief recession of late 2008/early 2009.<sup>16</sup> 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 in the market. This modality was payroll credit, in which the lender has the right to deduct 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, and resumed in 2009. 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 for firms. A few qualifications, however, have to be made. First, it is important to keep in mind that this

<sup>16</sup> From December 2009 to September 2010, loans to the manufacturing sector increased slightly faster than loans to households (13.8% to 12.1%) though.

is a source of funds for a relatively small number of (usually large) firms. Placing stocks in the markets involves heavy fixed costs, which makes this channel of finance inaccessible to 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 difficult 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 characterizes this market, even though annual data tend to 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 never lower than 50% of total stock purchases. Investment funds are a distant second, followed by individuals. As noted, foreign investors are usually influenced by events in their country of 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).

Finally, if one turns to debt securities shown in table 5 some of the same problems affecting stock markets are also present. Access to funds channeled through 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. Now that the view that the recession initiated in late 2008 is really over has set, banks and securities markets are expected to resume and sustain their levels of activity, promoting 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. However, again, one must be careful when taking announcements by financial executives about their willingness to support long-term productive investment. In most cases, these statements are accompanied by a plea to share the access BNDES has to public funds without sufficient clarification of how would these same conglomerates work to fulfill the needs of the economy for investment finance.

## v. 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, 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

Country	Basel Capital Coefficients (%)						
	2003	2004	2005	2006	2007	2008	2009
Argentina	14,5	14,0	15,3	16,8	16,8	16,8	17,6 <sup>(1)</sup>
Australia	10,0	10,4	10,4	10,4	10,2	10,5	11,4 <sup>(2)</sup>
Brazil	19,0	18,5	17,4	17,8	17,3	17,5	18,4 <sup>(3)</sup>
Chile	14,1	13,6	13,0	12,5	12,2	12,4	13,6 <sup>(4)</sup>
Mexico	14,4	14,1	14,5	16,3	16,0	16,0	15,2 <sup>(3)</sup>
Spain	12,6	11,0	11,0	11,2	10,6	11,3	n.a.
Canada	13,4	13,3	12,9	12,5	12,1	12,3	10,3 <sup>(2)</sup>
South Africa	12,4	14,0	12,7	12,3	12,8	n.a.	13,5 <sup>(4)</sup>

(1) May; (2) Mars; (3) June; (4) April

Source: BCB, Relatório de Estabilidade Financeira, maio 2009, p. 61, and October 2009, p. 65.

As it is always the case, one has to be careful in interpreting this information.<sup>17</sup> 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

<sup>17</sup> In fact, one should be particularly careful with the 2009 result for the Brazilian banking system due to a change in the concept of capital adopted as a step in the shift toward Basel II rules. The 2009 number is not strictly comparable to the preceding series because of the inclusion of some new items in the metric of regulatory capital. Nevertheless, the change was quantitatively marginal. See Banco Central do Brasil (2009).



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 has been 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 already 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 public 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	2009
Argentina	17,7	10,7	5,2	3,4	2,9	2,7	3,4 <sup>(1)</sup>
Australia	0,3	0,2	0,2	0,2	0,2	0,5	1,0 <sup>(2)</sup>
Brazil	3,9	3,0	3,5	3,7	3,2	3,9	5,0 <sup>(3)</sup>
Chile	1,6	1,2	0,9	0,8	0,8	1,0	1,2 <sup>(1)</sup>
Mexico	2,8	2,2	1,8	2,1	2,5	3,2	3,8 <sup>(3)</sup>
Spain	1,0	0,8	0,8	0,7	0,9	3,4	4,6 <sup>(3)</sup>
Canada	1,2	0,7	0,5	0,4	0,4	1,1	0,9 <sup>(2)</sup>
South Africa	2,4	1,8	1,5	1,1	1,2	3,9	5,1 <sup>(4)</sup>

(1) May; (2) Mars; (3) June; (4) April

Source: BCB, idem, May 2009 and October 2009

Table 10

Provisions for Non-performing Loans (%)							
Country	2003	2004	2005	2006	2007	2008	2009
Argentina	79,2	102,9	124,5	129,9	129,6	131,4	115,3 <sup>(1)</sup>
Australia	131,8	182,9	203,0	202,5	183,7	75,8	72,3 <sup>(2)</sup>
Brazil	179,3	201,6	176,6	171,4	175,3	168,9	151,0 <sup>(3)</sup>
Chile	130,9	165,5	177,6	198,5	210,4	179,9	178,0 <sup>(1)</sup>
Mexico	167,1	201,8	232,1	207,4	169,2	161,2	143,7 <sup>(3)</sup>
Spain	231,5	289,0	235,7	255,1	204,8	70,8	59,5 <sup>(3)</sup>
Canada	43,5	47,7	49,3	55,3	42,1	34,7	29,8 <sup>(2)</sup>
South Africa	54,2	61,3	64,3	n.a.	n.a.	n.a.	n.a.

(1) May; (2) Mars; (3) June

Source: BCB idem, May 2009 and October 2009

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	n.a.
2004	-0,5	-4,2	1,9	17,6	1,2	16,7	2,1	19,0
2005	0,9	7,0	2,2	21,2	1,2	17,9	3,2	25,4
2006	1,9	14,3	2,1	20,6	1,2	18,6	3,5	25,9
2007	1,5	11,0	2,4	22,5	1,1	16,2	2,7	19,9
2008	1,6	13,4	1,8	17,9	1,2	15,2	1,2	12,5
2009	1,9 <sup>(1)</sup>	15,6 <sup>(1)</sup>	1,6 <sup>(2)</sup>	14,8 <sup>(2)</sup>	1,1 <sup>(1)</sup>	14,7 <sup>(1)</sup>	1,2 <sup>(2)</sup>	12,7 <sup>(2)</sup>

(1) May; (2) June;

Source, BCB, idem, May 2009 and October 2009

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.

#### vi. Perspectives for Financial Regulation

Brazil's financial regulators presently face two main challenges: (i) how to ensure that the financial system will finally become functional to support economic development, which means not only financing private investment and consumption but in ways that are supportive of social demands for income and wealth redistribution; and (ii) how to ensure that this is done while preserving systemic stability which has been, so far, an important favorable characteristic of the operation of financial markets in the country.

##### a. Financing Development

The National Development Bank (BNDES) has been for decades practically the only domestic source of long-term funds for private (but also for public) investments in Brazil. After a period in the 1990s in which the Bank was oriented to act more like an investment bank, particularly in the promotion of financial operations supporting the privatization of public enterprises, it recovered its original function by the early 2000s. It is generally, although not unanimously, agreed that the institution has operated with a

relatively rare degree of consistency and efficiency. Nevertheless, even an efficient institution such as BNDES is not enough to support investment in rather advanced middle-income countries like Brazil. While the Bank tends to focus mostly on large projects where external economies tend to be significant, there are many other segments of the economy that may need a different kind of financial support. Not only small and medium firms, which exist in large numbers, but particularly emerging small firms, capable of developing innovative methods of production or new products probably would profit from the existence of more flexible sources of long-term finance.

There are fundamentally two models to be followed to create the conditions for private financial institutions to play a role in financing investments. The first is the path followed by countries like Germany or France, where universal banks issued long-term liabilities to fund equally long-term demands for credit from investing firms. Of course, banks are not supposed to offer long-term relying on acceptance of deposits (even time deposits) from the public. Maturity mismatches in such a case would seriously compromise the health and safety of the banking sector. Universal banks have to devise other instruments to capture financial savings, particularly the issuance of long-term securities. Brazilian regulators have, in fact, taken a step in this direction giving permission to banks to issue a Financial Bill (Letra Financeira), a debenture-like security that can be issued by banks (which were barred from issuing debentures) with a minimum maturity of two years and a minimum value of R\$ 300,000.00.<sup>18</sup>

The alternative path is to push for a more vigorous development of securities markets, by giving some incentive to investors when purchasing longer-term securities. Something in this direction is already practiced in the country in relation to investments in mutual funds. The longer the maturity of the fund, the lower are the taxes imposed on the returns. As high inflation is slowly becoming history, private investors are beginning to accept longer-term securities, particularly, as one would expect, public debt. Of course, given the traumas left by the international financial crisis, the development of new sources of finance through the expansion and differentiation of capital markets has to proceed in tandem with the creation of adequate rules not only to

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<sup>18</sup> Resolution 3836, of February 25, 2010. The text of the resolution can be found in [http://www.febraban.org.br/p5a\\_52gt34++5cv8\\_4466+ff145afbb52ffrtg33fe36455li5411pp+e/CNF/HOME/Resolu%E7%E3o%203.836-10.pdf](http://www.febraban.org.br/p5a_52gt34++5cv8_4466+ff145afbb52ffrtg33fe36455li5411pp+e/CNF/HOME/Resolu%E7%E3o%203.836-10.pdf)

protect the integrity of markets but also to ensure that systemic risks are not being generated. In particular, securitization processes, still largely incipient, could and should be stimulated within strict limitations on the innovative initiatives of financial institutions. Re-securitization should not be allowed, since the crisis has shown that it serves mostly to obscure the real features of a financial transaction rather than to make markets more efficient.

Nothing prevents both paths to be explored. In fact, they both rely on the emergence and rapid growth of institutional investment schemes, such as pension funds and mutual funds. Institutional investors should become the main channels through which domestic financial savings are used to fund investments. The role of government in this process, at a bare minimum, should be to guarantee the market operates transparently so confidence can grow and the favored operations to spread. Rules against conflict of interest are a paramount necessity, as it was made clear by the crisis in the US, specially important given the prevalence in Brazil of financial conglomerates.

A second role for the government can be the offer of some forms of insurance to the operations that are considered more important for the development of the economy. Insuring against credit risks can be an efficient way to stimulate the growth of long-term security markets leveraging up public resources, as it happened in the case of the government-sponsored institutions such as the FNMA in the United States.<sup>19</sup>

As to prudential regulation, CMN and the Central Bank are still examining Basel III to study its local implementation. As a newly-admitted member to the Basel Committee, Brazilian regulators are morally obliged to follow its recommendations. However, the chairman of the Central Bank has already made public his view that very little of Basel III would be actually news in this country. Capital coefficients already are way above minimum levels and would still be greater than Basel III recommends. Liquidity has remained a concern of bank supervisors, both market and funding liquidity, even when all attention elsewhere seemed to be focused on solvency and capital. Controls on

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<sup>19</sup> One should not judge the experience of Fannie Mae and Freddy Mac by their performance in the years immediately preceding the crisis, when their operational methods were changed by government pressure. Those institutions, especially Fannie Mae, created during the Roosevelt Administration in the 1930s, were instrumental in developing a vigorous and wide market for mortgages that supported for decades the housing sector in the United States. An essential service supplied by government sponsored enterprises was precisely insuring mortgages to allow the emergence of long term financing lines for residential and commercial purchases.

trading books of banks have been, according to the chairman, tight due to high volatility in interest rates and exchange rates.

Notwithstanding the unsurprising relatively optimistic view of the Central Bank of Brazil, there are areas where there is room for concern. First, as mentioned many times, it is still to be seen how the banking sector will perform as it shifts its focus from investing in public securities to supplying credit to private borrowers. The Central Bank will have to monitor carefully this process to ensure that as the sector attends private demands it does not compromise its safety. But new rules will need to be defined to allow tighter control of intra-institution deals that can reduce the efficacy of financial supervision. One important example is given by the operation of mutual funds, most of which are in fact organized and managed by banking conglomerates. Stimulating clients to shift their deposits to funds may allow banks to overcome their prudential limitations by little more than renaming deposits as fund quota acquisition using the mutual funds to make the same investments the bank would make without the need to build the same regulatory capital. The existence of conglomerates may perhaps be justified by reference to scale and scope economies, although their actual existence is a disputed point in the banking literature. But they cannot serve to circumvent regulation, and the relevant regulators must do their best to prevent it.

This in fact leads to a related, and very important, point. Basle II was very demanding in terms of qualification of supervisors and Basel III will certainly intensify those demands. How supervisors are expected to fulfill all the roles they are charged with, especially in Pillar 2, is still to be explained by the authorities in Brazil. The problem will certainly be no different in other emerging countries. One step that could be taken to address this difficulty could be a joint initiative, in the context of Mercosul, for instance, where regulators and supervisors would be trained in advanced supervisory methods, exchanging their experiences and contributing to create a common doctrine of financial supervision limiting the possibility of regulatory arbitrage in the region.

There are many problems, practical and conceptual, with the Basel strategy. Even under ideal conditions, there are still strong reasons to expect that it will not be able to prevent financial crises. The critique of the strategy, however, has to be done elsewhere. Accepting, for the foreseeable future, that Basel will prevail, no major changes seem to

be required in the Brazilian regulatory apparatus. Relatively minor, but still essential, adjustments may be needed in terms of dealing with conglomerates and of staff qualification and training. It is in the shaping of a market for long-term funds that changes are of greater urgency.

#### 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 were made in a rather opaque way and not always respecting appropriate legal rituals (Franco and Pinho Neto, 2004).

Midway in this liberalization process, another major institutional change took place - in this case, all of a sudden, induced by a balance of payments crisis: the substitution of a floating exchange rate regime for the former crawling peg arrangement<sup>20</sup>, in January 1999.

Therefore, in the first decade of the XXI century Brazil had an entirely new institutional framework governing demand and supply of foreign exchange and the determination of the exchange rate. By allowing transactions in the foreign exchange market for the purpose of buying and selling virtually any financial and real assets, the liberalization of the capital account made the exchange rate behave increasingly like the price of an asset. Meanwhile, the floating rate regime left it to the market – now a much wider market than in the past – the determination of the price of this asset, which incidentally is one of the most important macro prices in the economy.

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<sup>20</sup> Although sometimes referred to as a band system, the exchange rate regime originated in July 1994 and reformed in April of 1995, was in fact an active crawling peg as defined by Corden (2002, ch. 5). The wider band within whose limits the exchange rate was supposed to float (if a genuine band regime were in place) was fictitious, since the Central Bank in fact determined a very stable path –with virtually no floating – for the currency price.

To evaluate how well has this new arrangement fared is not an easy task. First of all because so many changes were taking place in economic policy and institutions that it is difficult to disentangle or control the effects of those diverse determinants. Second, because the international economy also gyrated so much along this period, oscillating between times of great volatility in financial flows and economic performance – as during the Asian crisis – and times of great prosperity and stability – as the 2003-2007 period<sup>21</sup>. As a consequence, we had both periods of great *and* low volatility, as well as phases of a depreciated and competitive exchange rate and long phases of appreciation and low competitiveness. Therefore, what looked like a regime able to guarantee a competitive exchange rate and a solid balance of payments in the first half of the 2000's, did not show the same supposed properties in the second half of that decade.

It is not our purpose to test here the performance of this exchange rate regime econometrically. Instead, we intend to make a broad appraisal of the question drawing on some features of the macroeconomic overall performance and some structural developments that may be associated with the exchange rate regime as above characterized, and raise questions concerning the appropriateness of this regime. In what follows, we begin by taking stock of the process of opening the capital account in order to have a broad qualitative picture of the degree of financial integration in the world economy and its consequences on the foreign exchange market. After that, we discuss some key macro and structural developments related to the exchange rate regime in two different phases: the first, from 1997 to 2003 characterized by high volatility and (since the adoption of the floating regime in January 1999) a depreciated exchange rate; the second, from 2004 on, characterized by a long appreciation process, with incipient, although important, consequences for economic structure, specially the structure of exports.

#### i. Capital Account Convertibility: Main Steps

The earliest attempts to liberalize the capital account, after the crisis of the 1930's, date back to 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

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<sup>21</sup> The second difficulty is easier to deal with in a panel study with many countries and different exchange rate arrangements, in as much as all the economies would be facing similar external determinants. The same can not be said of the first one.



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.

However, by the end of that decade and beginning of the 1990s, capital controls had been abolished in the advanced economies and developing economies were also moving in that direction. It was in this environment that the Brazilian authorities decided to restart the capital account liberalization process.

The first major steps towards capital account convertibility were taken between 1988 and 1992 through three main initiatives of deep impact<sup>22</sup>: 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 what was then called CC5 accounts. 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 a 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 for foreign exchange, 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. 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, as discussed previously (section 3, iii).

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

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<sup>22</sup> For details of the referred policy initiatives, not only related to the capital account but also to current transactions since 1988, see Souza (1993), Carvalho, Hoff and Souza (2008), Franco and Pinho Neto (2004) and Cintra and Prates (2005).

previously brought into the economy. It was an underhanded move to allow residents to buy assets abroad, circumventing the principles underlying Law 4131.<sup>23</sup>

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 <sup>1</sup>	0,6	1,2	13,8
Net Porfolio Equity Inflows	0,0	4,9	4,1
Net Debt Flows <sup>2</sup>	-0,8	9,9	10,7

<sup>1</sup> Exc. Conversion of debt into FDI.

<sup>2</sup> Exc. New money on non voluntary basis and Monetary Authority flows.

Source: prepared by the authors on the basis of Central Bank data.

The honeymoon 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 had a serious impact on the domestic banking sector (see Carvalho and Souza, 2009, section 3). 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 1994.

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 (2003), at that moment the 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, in favor of the second alternative.

<sup>23</sup> 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.

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.<sup>24</sup>

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, further measures were adopted, among which the most important were: 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 (*cobertura cambial*).

The unification of the exchange market<sup>25</sup>, 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 then extinguished. Thus, only a few marginal restrictions were left in the rulebook with respect to placements abroad, mainly related to investments of institutional 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<sup>26</sup>, the role of *market maker* was shifted 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’

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<sup>24</sup> 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).

<sup>25</sup> In reality, both were floating rate markets. Nevertheless, access was segmented according to type of payment, besides some differences of rules applying in each market.

<sup>26</sup> A detailed analysis of these interventions is provided by Souza (2005).

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.<sup>27</sup> 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 present Brazilian exchange rate regime in an environment of an open capital account, 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 subperiods. The first goes from the Asian crisis to 2002, and is 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.

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<sup>27</sup> 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.

## ii. Financial Integration and Volatility: 1997-2003

As shown in table 12, 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.<sup>28</sup>

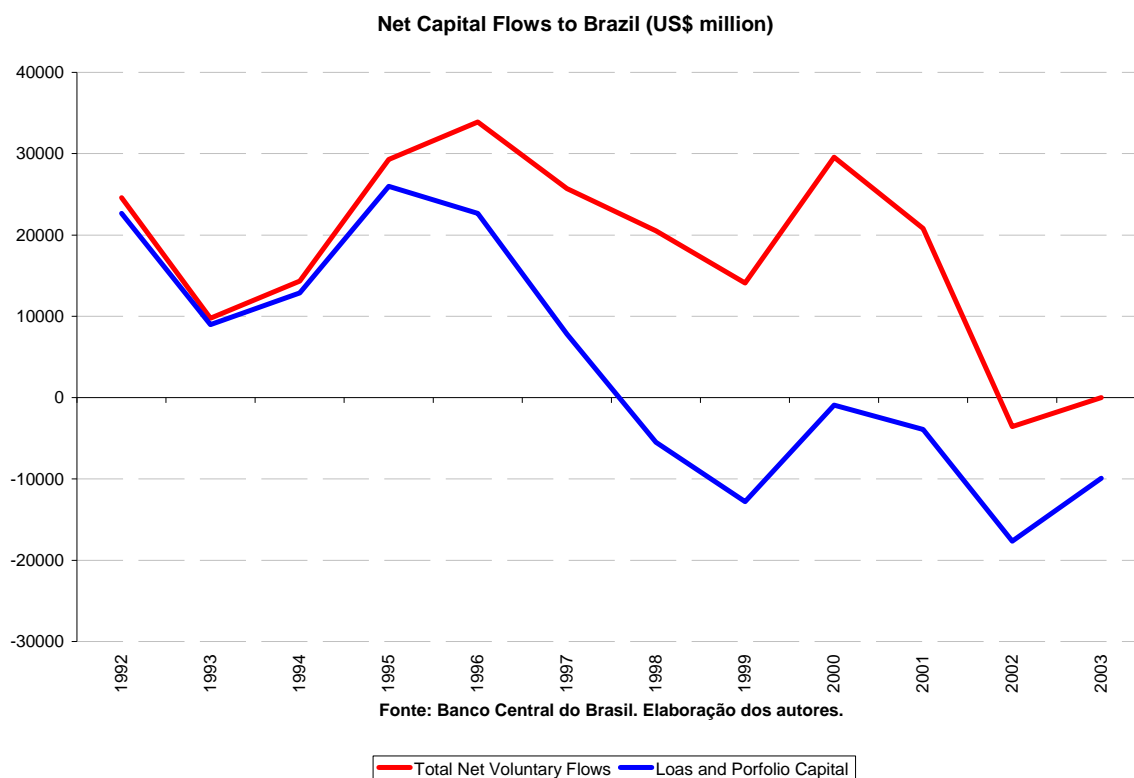
But the appreciation of the domestic currency does not exhaust the impacts of the new exchange rate regime on the Brazilian economy. It is important to consider, in this period, also the impacts of the increased volatility of variables such as exchange rates and capital flows. After an initial period 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<sup>29</sup> decreased and became 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.

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<sup>28</sup> A debate has emerged recently 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).

<sup>29</sup> Voluntary capital flows are obtained by subtracting from total flows those of compensatory loan made by the Monetary Authority.

Graph 1



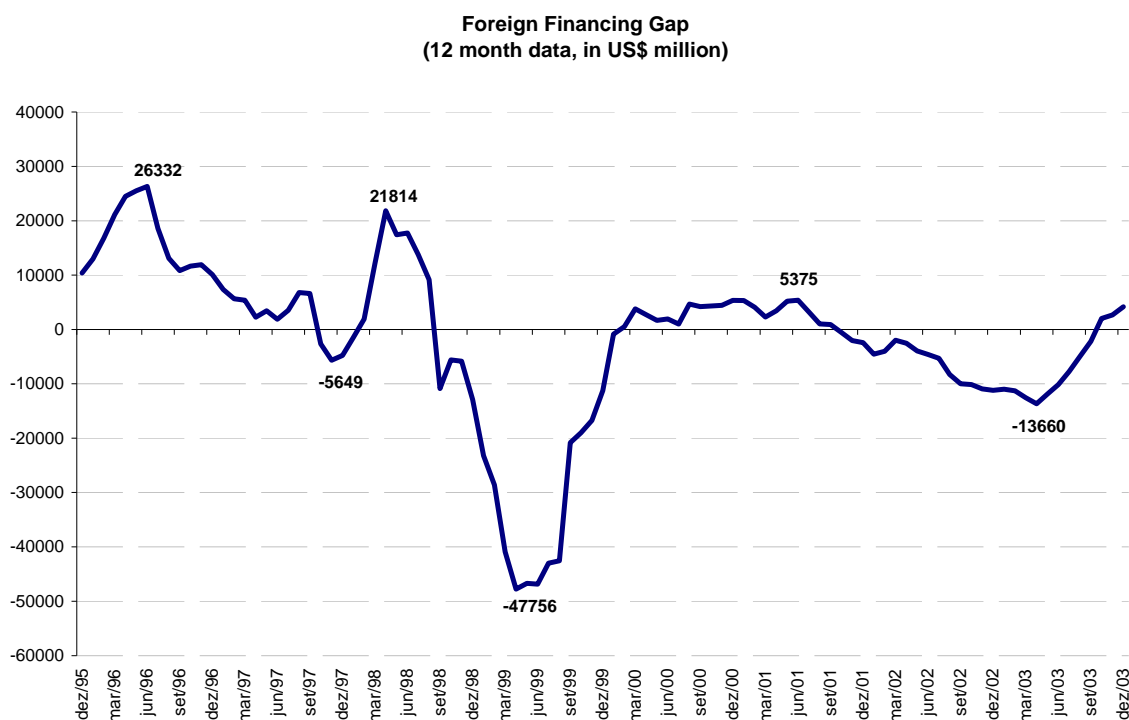
To evaluate the magnitude of the macroeconomic impacts of sudden stops and capital flight, beginning with the Asian crisis, one needs to consider also what happened with the current account. While capital inflows expanded (prior to the Asian crisis), the appreciation of the real led to an increase in 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) Net Voluntary Capital Flows less Current Account Deficit.  
Source: prepared by the authors, on the basis of Central 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, by assuming liability positions in foreign currency. Therefore 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 a steep 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 premium 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 current 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
2009	239,1	-0,4	-1,5
2010 <sup>(1)</sup>	275,2	-0,3	-2,4

(1) Jan-Sept for CA/GDP, and September for International Reserves and Net External Debt/Exports.

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

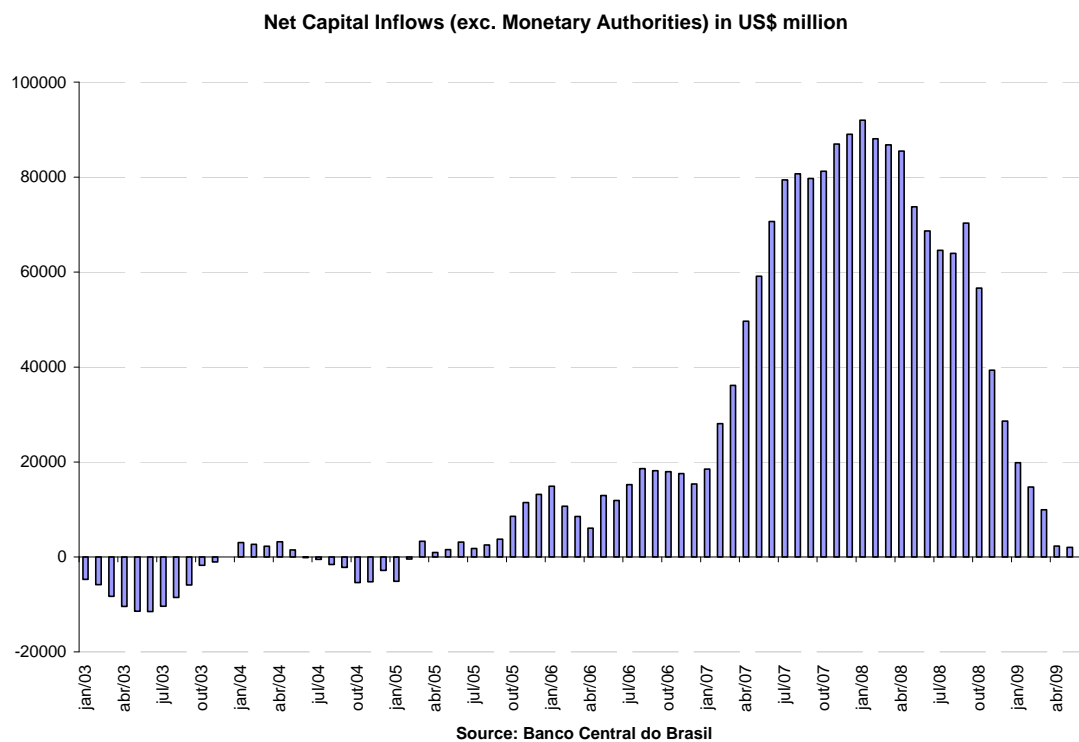
As fragility factors were removed, macroeconomic volatility fell substantially. Interest rates, for instance, fell to unheard levels in the last fifteen years, even though they still remain well above international standards. Under the new circumstances, the Brazilian economy started to grow in a seemingly sustained 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 Lehman Brothers finally brought the international crisis to Brazil. A byproduct of the newly reached good times, however, was the sustained appreciation of the real<sup>30</sup>, again, not only with respect to the US dollar but also in reference to a varied basket of currencies,

<sup>30</sup> 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.

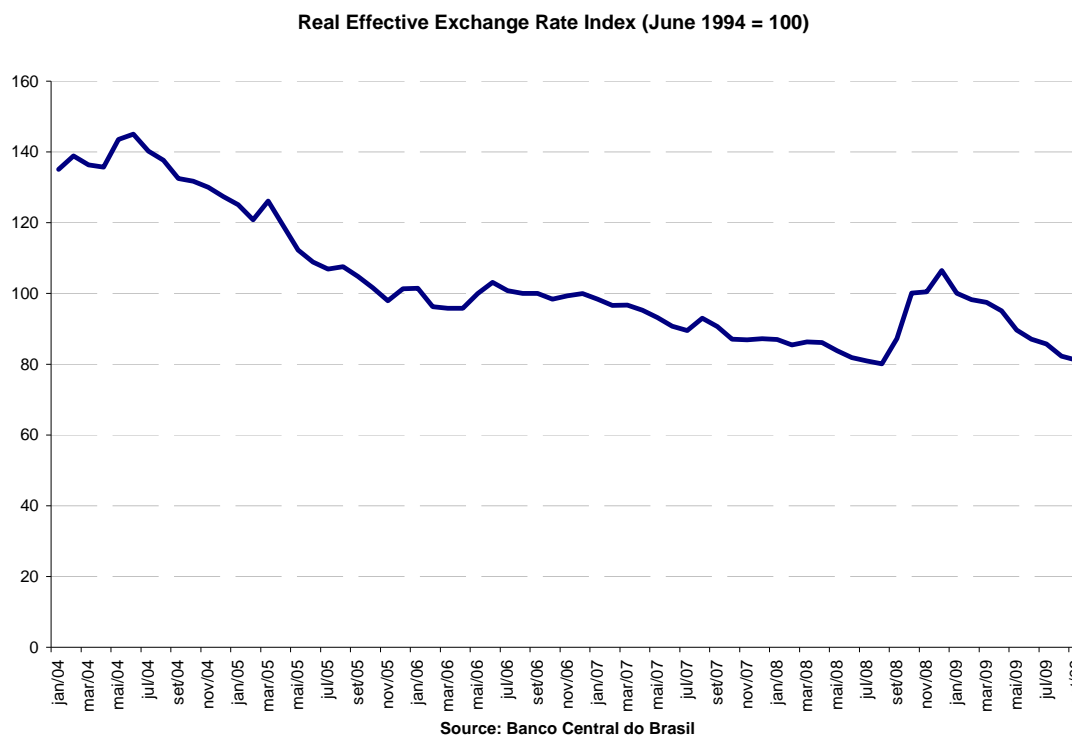
as shown in graph 4. By September 2008, the effective rate of exchange had appreciated 42% from its level in the first semester of 2004<sup>31</sup>.

Graph 3



<sup>31</sup> If we measure appreciation 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 4

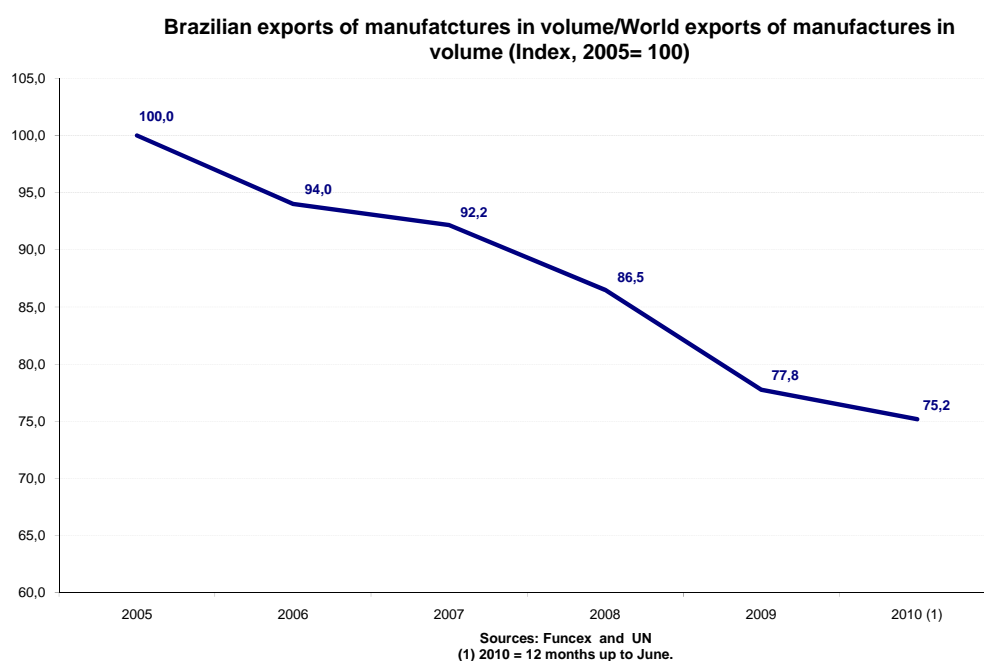


All things considered, one cannot avoid qualifying the apparent virtuous circle installed in the country in recent years. What looks like a continuous process of economic expansion initiated in the second semester of 2003, is also a process in which a fundamental change is occurring both in growth patterns 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 (iv).

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 ratio of the deficit in current account to GDP. The first indications that this is currently happening are already visible in 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

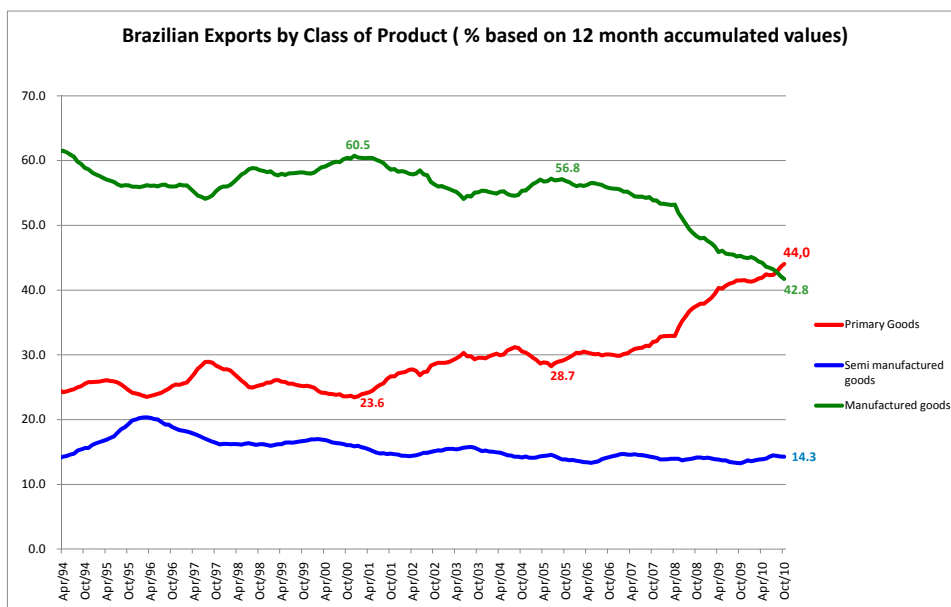


Not only Brazil has been losing space in the international market for manufactures but this class of goods is also losing room in total exports of the country, as can be seen in graph 6. In addition, the degree of diversification of exports is also decreasing<sup>32</sup>, making the country potentially more vulnerable to changes in world demand patterns. All

<sup>32</sup> For a detailed account of this subject, see Souza (2009).

together, these trends imply a reduction of the share of the manufacturing sector in Brazilian GDP, while mineral exploration and exports expand theirs.

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 worrisome picture for the future development of the Brazilian economy, provided the recent tendencies regarding industrial competitiveness and the balance of payments are not curbed. 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.<sup>33</sup> 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.

In other words, it is risky to leave the competitiveness of the economy in the face of foreign competitors to be determined by the whims of international financial investors.<sup>34</sup> 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.

In fact, when the floating exchange rate regime was introduced in 1999, it was supposed to adjust the balance of payments, freeing other macro policies to pursue domestic goals. With hindsight, two expected promises were not warranted. First, many economists expected that, free from the need to attract foreign capital to meet current account deficits, during the frequent international financial turbulences, interest rates would soon achieve "normal" (by any international norm) levels as well as be less volatile than it was in the past. Besides that, at the beginning of the 2000's it was a general belief that the floating regime, in contrast with the exchange rate anchor regime, would make sure that the value of the currency would be consistent with the preservation of the competitiveness of the domestic industry.

However, as discussed previously, volatility remained very high during the first years of the new exchange rate regime and interest rates, although lower than in the past, were kept in abnormally high levels by comparison to any international standard, breaking the first promise. After 2003, however, macroeconomic and financial volatility diminished, but the ensuing growth of demand for Brazilian assets brought about a continuing process of exchange rate appreciation, that eventually led to a dismal performance of the exports of manufactures and to a process of deterioration of the current account, breaking the second promise.

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<sup>33</sup> 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 had 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.

<sup>34</sup> 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.

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, until recently, the serious consideration of alternatives. A certain degree of disenchantment with the “heterodox” policy experiments of the past weighs in the same direction.

iv. Recent developments in economic policy: reforming the exchange rate regime?

By the last quarter of 2008, the international crisis initiated in the United States the year before finally hit Brazil. Among its chief manifestations, a capital flow reversal took place, devaluing the real. Moreover, the devaluation of the real itself, caught by surprise many investors, generally large non-financial firms, who had bet on the continuing appreciation of the Brazilian currency through derivatives. The heavy losses suffered by these investors led to a sense of heightened uncertainty and amplified the domestic impact of the international crisis contagion.

The devaluation of the real, however, was short-lived. Already in 2009, although the contractionary impact of the crisis still lingered for some quarters, capital inflows were resumed and the domestic currency began to appreciate again. Trying to decelerate this trend, the Finance Ministry took one step back in the process of capital account liberalization, imposing a 2% tax on capital inflows, in October 2009. Liberal circles and financial market agents loudly condemned the initiative, although at such a short rate, it was expected to be little more than symbolic. In fact, the imposition of this mild form of capital control in Brazil was followed by similar initiatives in other countries, beginning with Taiwan, and it did signal a change in the dominant assessment of the efficacy of capital controls. Perhaps more surprising, the move ended up receiving some support from a most unexpected source, the IMF. In a widely discussed staff note, Fund’s staffers conceded that under certain conditions “capital controls are a legitimate part of the toolkit to manage capital inflows” (Ostry et alii, 2010: 15). The rather obvious qualification that controls may be effective only “in certain conditions”, which is a valid clause in fact with respect to any policy “tool”, did not disguise the aboutface performed by the Fund, after almost twenty years of active prodding toward liberalization.

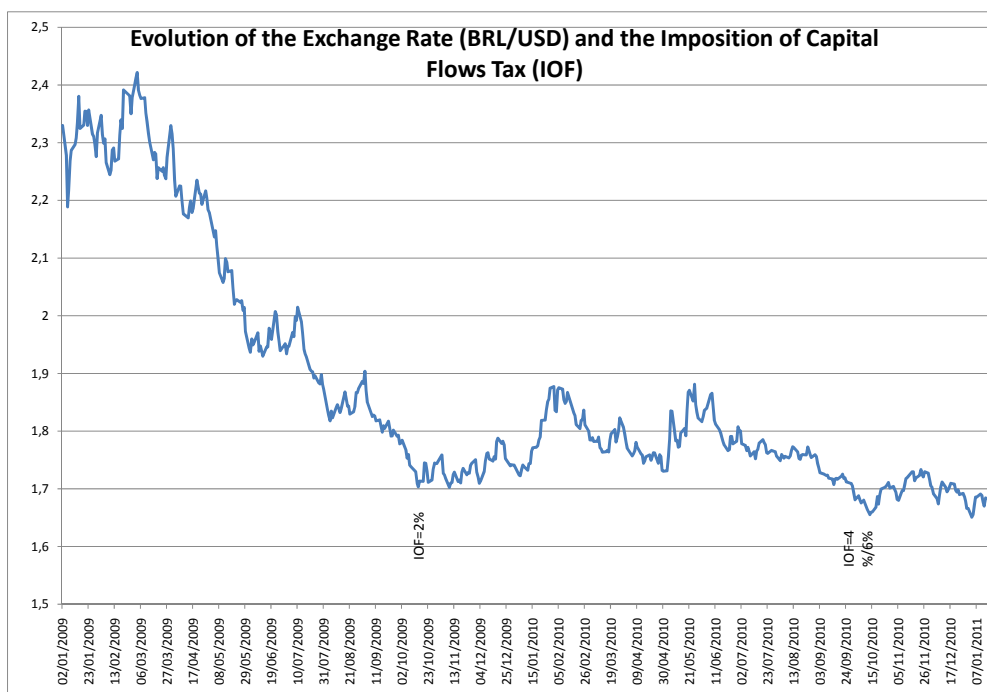
When, in October 2010 the tax on foreign capital inflows was raised to 4% and again, a few weeks later, to 6%, the reaction from market representatives was not so strong. Internationally, the notion that some type of “currency war” was under way, motivated by monetary and exchange rate policies in the US and China, respectively, set the stage for a wider acceptance of such kind of intervention in capital flows. It looked reasonable that, unless some strong international policy cooperation is put in practice, national initiatives to protect the real exchange rate and, therefore, the competitiveness of the economy are valid policy instruments.

Of course there remains some skepticism as to the medium run effect of such policies, since no one doubts the creativity of markets in finding ways to circumvent those kind of restrictions. On the other hand, it is also beyond doubt that they have changed the way the game is played. There is no more a one-way bet.

Any counterfactual exercise to evaluate the degree effectiveness of the imposition of the capital inflows tax would be subject to dispute. However, the evolution of the market rates since the imposition of the new tax is compatible with the idea that the government has, at least, been able to establish a floor to the movement of the exchange rate (graph 7).



Graph 7



In order to preserve or enhance its power to influence, and therefore protect, the exchange rate over the medium and long term, the government will have to meet at least two conditions: a) it will have to set the mix of macroeconomic policies in accordance with the desired level (interval) of the exchange rate, which requires lowering the level of interest rates; b) it must be able to employ a variety of efficient policy instruments to intervene in the foreign exchange markets and exert capital controls whenever necessary.

While the Brazilian government has given hints that it may meet the first condition in the future, it has already broadened the use of intervention instruments by establishing limits to the sold position in foreign exchange by domestic banks, and by selling foreign exchange in the futures market. These might be the first steps towards the design of a new foreign exchange regime, whose contours are not yet entirely clear, but that should be able to warrant a more competitive and stable exchange rate.

## 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”. Until very recently, the Brazilian economy was unable to reach and sustain growth rates comparable to other leading emerging economies (and, in fact, to what Brazil itself has achieved from the end of World War II to the late 1970s). On the other hand, it has exhibited great resilience in the face of a deep international crisis. Finally, a major scourge, high inflation, was removed by the successful Real Plan of 1994, although ending inflation failed to bring with it automatic resumption 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 not a subject of this paper, that growth recovery was achieved in parallel with an effort to address long and deeply rooted problems of Brazilian society, large-scale extreme poverty and high income concentration. In fact, many analysts attribute to programs like the Family Grant program, the extension of social security benefits to rural areas and to the policy of raising minimum wages a prominent role in maintaining domestic demand high while the country absorbed the shock waves coming from the international crisis.

But, particularly in the domestic institutional front, there are still 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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