

# 11. Capital flows to emerging markets under the flexible dollar standard: a critical view based on the Brazilian experience

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## INTRODUCTION

The purpose of this chapter is to contribute to the discussion of a number of issues concerning macroeconomic policies that should be appropriate for developing countries. We shall take into account the broader political picture of changes in the international economy, reflected objectively in terms of the nature of the balance of payments constraints facing the 'emerging markets' and specially the Latin American economies since the early 1990s. It is within this wider context that we present our account of the particular case of Brazil.

The Brazilian experience has some peculiarities that make it an interesting testing ground for the presumed benefits of the process of financial globalization and the policies of trade and financial opening. 

Many will agree that the slow growth and extremely high inflation experienced in Brazil in the 1980s had much to do with debt crisis and the subsequent interruption of capital flows towards Latin America. Indeed, in what became known as the 'lost decade' Brazil experienced a severe balance of payments constraint that slowed growth and triggered the acceleration of inflation. Since the early 1990s, foreign capital started again flowing towards Brazil in large quantities, first mainly as portfolio capital but towards the end of the decade more and more as foreign direct investment. One could well have expected that this large amount of foreign capital would improve 'quality' (presumably increasingly 'cold' rather than 'hot' money), by alleviating the balance of payments constraint, and would have had a big effect on both inflation stabilization and in the resumption of fast economic growth.

However, what the actual record shows is that the impact on inflation stabilization, although starting a bit late, only by mid-1994, was in fact more drastic than anybody could have reasonably expected. Inflation fell spectacularly and

has remained extremely low ever since. On the other hand, the growth performance was, to say the very least, extremely disappointing. This chapter will try to make sense of this experience using a combination of some features of the international situation and of particular policies followed by the Brazilian state.

Most Latin American economies followed more or less the same broad pattern of fast disinflation and slow growth with the notable exception of Chile and partial exception of Argentina. Therefore the Brazilian story, in spite of its peculiarities, may arguably be seen to reflect a more general pattern.

We shall begin our discussion in the following section with a brief account of the operation of the current international monetary system, a system that we call the 'floating dollar standard', and of other salient features of the international trade and financial environment faced by the 'emerging' developing economies since the early 1990s. The third section shows how this new international environment affects and changes the nature of the balance of payments constraint facing the developing countries. The fourth section discusses the Brazilian experience within the context of the resumption of large capital flows towards Latin America since the early 1990s. The last section contains a few concluding remarks.

## THE FLOATING DOLLAR STANDARD, FINANCIAL GLOBALISATION AND THE EMERGING MARKETS

### **The Floating Dollar Standard**

At the end of 1979 there was a major change in American monetary policy, with the Volcker interest rate shock. The dollar interest rate in both nominal and real terms reached unprecedented levels and this was followed by a wave of financial innovations and policies of financial deregulation, which has ever since been spreading a combination of large and increasingly unregulated short-term capital flows and volatile exchange rates all over the world.

This policy change quickly brought down international commodity prices and slowed down international inflation. The USA has since then regained complete control over the international monetary and financial system. The other developed countries, finally convinced of the futility of trying to question the centrality of the dollar (as they had been doing in the 1970), increasingly accept the reality of the new system: the floating dollar standard.

In this system, the dollar is still the key international currency. The difference now is that the USA is free from the two limitations that the previous gold-dollar standard imposed on its policies, namely, the need to keep a fixed nominal exchange rate (to prevent a run towards gold) and the need to avoid running current

account deficits (in order to prevent a decrease in the US gold reserves) (Serrano, 1999; Medeiros and Serrano, 1999).

In the current floating dollar standard, the USA can incur overall balance of payments deficits and finance them by giving assets denominated in its own currency as in the gold-dollar standard that ended in 1971. However, the lack of convertibility in gold allows the USA to change by its own initiative the exchange parity against other currencies, mainly through changes in dollar interest rates. This occurred when it engineered trends both of dollar appreciation (as in 1980–5 and 1995–2001) and of depreciation (in 1986–94). In the latter case there is no big direct inflationary effect since international commodity and oil prices are set in dollars and there is also no reason to fear a gold run anymore because the current standard is the dollar itself. The dollar is the international means of payment and the main standard in contracts and price quotes in the international markets (as it happens, for instance, even in Asian trade which is mainly invoiced in US dollars), properties that make it an important store of value (because of its superior liquidity).

The main advantage of the current floating dollar standard for the USA is therefore the complete elimination of its external or balance of payments constraint. Now the USA can and does run current account deficits without worrying much about the increase in its net external liabilities because these ‘external’ liabilities are mainly denominated in dollars anyway (without gold convertibility the problem of losing gold reserves when a current account deficit happens has simply been eliminated, see Serrano, 1999).

This floating dollar standard, which Nixon and Kissinger tried to impose in the turbulent 1970 and which became a fact in the 1980s, allows the USA to run permanent current account deficits, as has been happening almost every single year since 1971 (except in 1973–6 and 1980–81). In the current system, the total value of American deficits in the balance of payments as a whole is automatically financed by an identical capital inflow corresponding to the increase of other countries’ reserves. These countries, if they want to participate in the international economy, simply must agree to accumulate dollar assets (often in the form of US public debt). In fact, the dollar is the reserve asset of the whole international financial system, as it is clear both from the central role of American interest rates and from the ‘flight to quality’ movements in times of turbulence, where ‘quality’ always means US government bonds.<sup>1</sup>

It is very important to stress these characteristics of the current international monetary and financial system and the extreme extent to which they benefit US interests. That may perhaps temper a bit the well-meant calls for major changes in the ‘international financial architecture’, which often do not specify how or why the USA will accept those changes, a small detail that makes such proposals sound rather utopian.

## Financial Globalization and Emerging Markets

Curiously enough, in spite of the absence of overall balance of payments problems, American trade policy during the 1990s turned progressively tougher, both directly and indirectly, through its overwhelming influence in international organizations such as the WTO, the World Bank and the IMF. US trade policy has systematically attempted to reduce bilateral trade deficits with most countries and to protect its 'old' industries (such as, steel, orange juice, and so on) and at the same time to open foreign markets in sectors (such as services) where the US has a clear competitive edge (software, entertainment services, and so on).

The 1990s was characterized by relatively low growth of the world economy as whole, unfavourable terms of trade for the developing countries and the hardening of the trade policies of the USA, Euroland and of the international organizations. World trade still grew by more than world GDP but the export markets for developing countries grew relatively slowly and under an increasingly fierce competition. This competition has been aggravated by the repeated competitive exchange rate devaluations of a number of developing countries relative to the dollar, which creates problems for developing countries that adopt fixed exchange rate regimes.

Foreign direct investment since the 1980 has grown at very high rates, predominantly between industrial countries (for example, Japanese and European investment in the USA, investment between European Union countries) and also in a number of developing countries in Asia and increasing in China. In Latin America, Mexico (because of NAFTA) and more recently Brazil have received large flows of FDI.

As far as developing countries are concerned, these flows have been substantial only for a selected group of them. Furthermore, as a rule these flows towards developing countries have not always been geared towards import substituting or export sectors, since many emerging countries are attracting FDI through privatization of non-tradable utilities and services and/or by making local firms a cheap buy due to the arbitrage gain allowed by keeping large interest rate differentials (far above expected exchange rate devaluation). Only under very few specific circumstances such as in the East Asian economies in the 1980s, were FDI flows strongly connected with an acceleration of exports and a structural improvement in the balance of payments position.<sup>2</sup> Moreover, these flows, partially because of these attraction policies and in part because of the very once-and-for-all nature of a lot of FDI flows, have not been very stable or regular over time.

Over this period, increasing financial deregulation made it deceptively easy for most developing countries, even many of those who had been cut off from the circuit of international finance since the debt crisis in the early 1980s, to fi-

nance current account deficits through private international capital markets (mainly through short-term portfolio investments but also through bank loans). In the 1990s there was a marked expansion of these gross capital flows towards the developing countries, flows which in spite of numerous crises have continued, albeit with large fluctuations, ever since.

In the last five years, the global trend of capital flows towards developing countries has shifted again towards a faster growth of FDI relative to debt or portfolio flows. This has led in many places to a renewed optimism about 'globalisation' and development since the 'quality' of the flows seems to be improving, but this optimism, at least in what regards growth performance, appears as we shall presently see to be rather exaggerated.

## LARGE CAPITAL FLOWS AND THE EXTERNAL CONSTRAINT FOR THE DEVELOPING COUNTRIES

### Capital Flows to 'Emerging Markets'

The balance of payments situation in the 'emerging' developing countries with the current floating dollar standard seems quite peculiar. For on the one hand, in terms of the balance of trade and growth of exports, the trends in general are quite unfavourable (in comparison with the 1970 for instance) since now the growth of export volumes are lower, the terms of trade worse and the pressure from the rich countries on those countries to increase imports is rather strong.<sup>3</sup> On the other hand, it has become even easier than it was in the 1970 for developing countries to attract large flows of foreign capital.

This contradiction is aggravated by the fact that, in general, it becomes easier to attract larger capital inflows the more an 'emerging' economy follows policies of financial deregulation and opening its markets: policies that invariably lead to exchange rate appreciation and loss of competitiveness. This increases the gap between the large accumulation of foreign liabilities and the real possibility of servicing these liabilities that requires a rapid increase in export earnings.

It is important to note that this problem cannot be solved by changing the form of the capital inflows. It is true that the more a financially open economy attracts and relies on short-term speculative capital the more it will be prone to foreign-exchange and liquidity crises.<sup>4</sup> However, even when capital inflows consist mainly of FDI the longer-term structural external fragility is not reduced. As it has been pointed out by Prebisch (1950), Kalecki ([1972] 1982) and more recently by Kregel (1996) among others, unless FDI is continuously and steadily expanding and is directly connected to the expansion of export capacity (or import substitution), it does not generate long-run positive effects on the balance of payments position of recipient countries (see below).

In this very unstable international environment, we observe that the best performance in terms of economic growth has occurred in the developing countries that have managed (in many countries for as long as they have managed) to resist the temptation of (and the pressures for) uncontrolled financial opening deregulation, and have kept some sort of control especially over the capital inflows; this has kept exchange rate and industrial policies geared towards export promotion. In other words, the growth performance has been much better in countries in which financial globalization did not lead (or for as long as it did not lead) to the abandonment of -led development strategies (such as Chile from the 1980s, and China, India and Asian countries until the late 1980s).

### **Long-term Sustainability and Growth**

When discussing capital flows and the balance of payments situation we must be clear about what are the limits on the possibility of economies growing while incurring current account deficits.

In the first place it is important to look at the question of the sustainability (or solvency) of this type of growth trajectory. We must examine under what conditions the growth of net foreign liabilities in the economy will remain under control and not follow an explosive path. This can initially be thought of independently of the specific manner in which the current account is financed, whether it is in terms of external debt or foreign direct investment.

The central element, as far as the sustainability of a strategy of growing with current account deficits is concerned, is given by the relative evolution of the net external liabilities and exports, since the latter are necessarily the ultimate source of the cash flow in foreign exchange that allows the servicing of these liabilities.

The net external liabilities, like any debt that is rolled over, grow at a rate equal to the effective interest rate paid on these liabilities. The crucial relationship regarding the sustainability of this growth with debt is thus given by the difference between the rate of growth of the value of exports and that of the effective interest rate.

As demonstrated originally by Domar (1950), if the rate of growth of exports is systematically below that interest rate, even a small trade deficit will make the ratio between net external liabilities and exports grow without limit and at some point it will be inevitable that the economy will have to generate a trade surplus in order to stabilize the growth of its external liabilities. It is therefore extremely important, for countries that are growing and experience current account deficits, that the rate of growth of their exports should be sufficiently high to satisfy the Domar stability condition.

Considering this discussion of the sustainability of external liability, the only relevant difference between foreign direct investment and external debt, whether

the latter is short-term or long-term, is their relative costs in terms of payments of foreign exchange.

Although foreign direct investment is considered the cheapest form of external finance because some of their profits are reinvested, some authors such as Kregel (1996) claim that the cost of this alternative may in fact well be higher than long-term external debt. Kregel claims that this is because the rate of profit tends to be higher than the rate of interest. In that case the 'reinvestment' of profits should be seen as a new gross foreign direct investment flow (implying new rights to future repatriation of profits) and should this not be deducted from the cost of previous flows.

Another problem is that the cost of attracting capital through a large difference between domestic and foreign interest rates is very probably much closer to the current dollar value of the domestic rate of interest rather than the rate at which the country gets credit in the international market. This happens because these capital flows are normally invested in funds that are, in one way or another, linked to the internal debt of the country (see Serrano, 1998).

Given these possibilities and the notorious practical difficulty of measuring accurately and separately the rates of return of all types of foreign liabilities – including the payments for royalties, licenses, patents and so on – a good empirical indicator that can be considered a reasonable measure of the sustainability of the country's external position is the ratio between its current account deficit and its exports.

This simple indicator has the further advantage of reflecting well the impact of the increases in the import coefficients and the volume of imports that has been such a marked feature of the experiences of trade and financial opening of the so-called 'emerging markets' in the 1990s.

### **Short Term Liquidity and Crises**

Note that while an unsustainable trajectory of net foreign liabilities will sooner or later lead to some slowdown in growth, it will not necessarily lead to a financial or foreign exchange crisis. An external liquidity crisis generally only happens when the creditors suddenly refuse to roll over debts that are due in a particular period. This, even in a situation where the current account deficit (the net inflow of capital over a given period) is not very big, may make the total stock of non-renewed credit lines appear as a rather large gross outflow of capital which can quickly deplete the country's foreign exchange reserves and trigger a serious crisis.

The conditions that will trigger an external liquidity or foreign exchange crisis depend on the magnitude of the foreign liabilities that are maturing in relation to the country's reserves of foreign exchange. It is in regard to the latter relationship that the distinction between short-term debt, long-term debt and foreign

direct investment acquires great importance. It is clear that the greater the maturity of external debt and the more the current account deficit has been financed with foreign direct investment, the smaller will be the value of foreign liabilities that are due in a particular period. On the other hand, the more urgent the servicing of short-term external debt the greater will be the country's external 'financial fragility' and the risk of a liquidity crisis.

We can say then that a good indicator of the external financial fragility of a country and even of the probability of a foreign exchange crisis is given by the ratio between the country's short-term external liabilities and its foreign exchange reserves.

When this ratio becomes very high, any interruption of capital flows caused by a decision not to renew the credit lines that are due can trigger, and often does trigger, a speculative process. This process is magnified by the expectations of default or of exchange rate devaluations as the magnitude of the gross capital outflows involved are such that they can quickly wipe out the country's foreign exchange reserves.

Indeed, if we examine the circumstances of the foreign exchange and liquidity crises that have happened in various 'emerging' economies in Latin America, East Asia and Eastern Europe we can distinguish clearly between the problems of foreign debt sustainability and that of external liquidity with the help of the two indicators discussed above.

Some basic common features of all of these experiences can easily be enumerated. First of all, factors exogenous to the developing countries, such as financial innovations and deregulation, together with a reduction in US interest rates in the early 1990s, played a central role in originating capital flows towards these economies.<sup>5</sup>

A second feature is that crises, (i.e. sudden reversals of capital flows together with a collapse of asset prices and of the exchange rate) have always been preceded by a significant increase in the ratio between short-term external liabilities and foreign exchange reserves and also by an appreciation of the exchange rate.<sup>6</sup>

A third salient feature is that the imposition of controls on short-term capital flows, whether of the inflows as in Chile in the first half of the 1990s or even of outflows as in Malaysia after 1997, have worked well in terms of reducing the volume and increasing the maturity of the external liabilities of these countries.<sup>7</sup>

Based on the liquidity indicator discussed above, Table 11.1 below ranks a few 'emerging market' countries in terms of their short-term external financial fragility.

These facts and figures indicate that amidst the abundance of foreign short-term capital flows, the accumulation of short-term liabilities relative to available reserves (as happened in Mexico in 1994, Thailand, Malaysia, Indonesia and Korea in 1997, Russia in 1998, Brazil in 1999 and Argentina in 2000), has al-

*Table 11.1 External short-term bank liabilities relative to official forex in selected countries (stocks in December 1998)*

Country	Short term debt/reserves
Taiwan	0.18
China	0.21
India	0.28
Malaysia	0.36
South Korea	0.57
Chile	0.57
Thailand	0.83
Mexico	0.92
Brazil	0.93
Indonesia	1.04
Argentina	1.37
Russia	2.26

*Source:* (downloaded from [www.oecd.org/dac/debt](http://www.oecd.org/dac/debt)), OECD data from the World Bank, IMF and BIS. Calculated by the BIS.

ways led to a situation of worsening financial fragility and, with different national variations, to a foreign exchange crisis.

The international evidence shows also that speculative bets against countries in which the ratio between short-term foreign liabilities and reserves is small simply do not work (see the case of Hong Kong in 1997). This does not seem to depend very much on the type of exchange rate regime or the 'credibility' of the finance ministers of these economies, nor on any generic fiscal fundamentals favoured by the orthodox view.

Although the instability of financial markets and uncertainty about short-term movements of asset prices seem to have increased in the 1990s, the financial crisis that happened in these countries was based on an objective condition: the accumulation of short-term foreign liabilities relative to foreign exchange reserves.

This accumulation of short-term debt was not inevitable and it shows that the behaviour of central banks and finance ministries of the emerging markets and their attitudes in terms of controlling the process of financial liberalization and the conduct of monetary and exchange rate policy in general is a key determinant of the possibility of crisis.

We observe from these experiences that there is no strong correlation between the expansion of foreign trade and the increase in short-term capital flows. Both

the very dynamic, export-led East Asian economies and the slower-growing and less open Latin American economies have been hurt by liquidity crises. Thus it seems that it is not necessarily the size of the current account deficit per se that explains the liquidity crisis.

### **Exports, the Current Account and Growth**

Turning now to the question of the long term sustainability of the foreign liabilities/export relationship, we may note that, except under extreme circumstances, as this ratio gradually deteriorates, it can be and often is improved by devaluation and/or by slowing the growth of aggregate demand and the economy, and thus the containing the growth of imports. Thus an economy which has sustainability problems with its external debtor position tends to be slowed down. From this slowdown a foreign exchange crisis may or may not 'emerge' depending on the maturity structure of the country's foreign liabilities and the size of its central bank foreign exchange reserves.

For instance, over the first half of the 1990 the slowdown of the growth rate of Korean exports and the increase in its import coefficients clearly signalled that growth could not continue at the very fast rates of the 1980s. That, however, was not the reason for the collapse of the won in 1997, which was due to excessive short-term borrowing following the financial opening of the economy (Chang and Yoo, 1999; Medeiros, 1998).

There is significant autonomy between the problems of longer-term sustainability and that of short-term liquidity although one can and does affect the other. The main connections between them are transmitted through the rate of interest and the exchange rate. Short-term capital inflows increase when the difference between domestic and international interest rates is big enough to compensate for the expected devaluation of the currency and the country's sovereign risk premium. Capital flows tend to hurt the competitiveness of exports and cheapen imports to the extent that when large, they tend to lead to exchange rate appreciation. This ends up affecting negatively the current account to exports ratio. This, by its turn, may well lead to deflationary demand policies that further increase the domestic interest rate and attract even more short-term capital inflows, increasing the external financial liabilities. The result may be a crisis, or else a 'stop-and-go' pattern of growth with a tendency towards overvaluation.

While the view that sustaining growing current account deficits (even in relation to exports) is possible as long as they are financed by 'cold' rather than 'hot' money is still the dominant one, we observe no empirical evidence in the current conditions of the international economy that previous gross flows of foreign direct investment will signal the future persistence of those flows, as we pointed out above. That result puts in question the idea that foreign direct investment is inherently stable (Claessens et al., 1995, Kregel, 1996).

The historical record and the problems mentioned above show that large inflows of foreign direct investment do not seem to constitute a stable solution for the sustainability problem, unless it generates in the host economy a sufficient acceleration of exports that can finance the expansion of imports and other outflows of dividends, royalties and so on which are traditionally associated with this type of investment.

## CAPITAL FLOWS TO LATIN AMERICA AND THE CASE OF BRAZIL

### **Latin America: from the Export Drive to the Import Boom**

After the 1982 Mexican default, most of Latin America found itself without fresh external sources of finance in a period when the terms of trade had worsened; the demand for its exports had fallen with the recent world recession and international interest rates were at record levels. This combination of events imposed a severe and prolonged balance of payments crisis on the region.

This crisis resulted in an interruption to the State-led industrial development strategy in countries such as Brazil and Mexico.

In general the regional reaction to the crisis was based on the control of imports both through policy-induced recessions and administrative controls and by the promotion of net exports through exchange rate devaluations. These policies led to an increase in exports and at the same time to economic stagnation and an explosive acceleration of inflation. As the European economy was in recession in the early 1980, the counterpart of increased factor service payments and capital outflows of the region was an increase of Latin American trade surplus with the USA. However, since its main purpose was to service the debt rather than increasing the capacity to import (that had been constrained throughout the decade in the region) the Latin American export drive in general came together with slow growth and high inflation.

With the abundance of international liquidity and after the 'securitization' of the external debt in the early 1990s, the external financing conditions of Latin America changed drastically. From a strategy of promoting exports, exchange rate devaluation and rigid control of imports (responsible for the stagnation and high inflation) the Latin American economies in general turned to a strategy geared towards attracting growing external capital inflows in order to remove the external constraint and resume some growth, controlling inflation through control of nominal exchange rate and integrating domestic financial markets with the international financial circuit.

With the exception of Chile (which did not allow excessive real exchange rate revaluation or impose capital controls on the inflows) and of Colombia, the

biggest economies in the region followed the 'southern cone' strategy that had been tried and had failed in the late 1970s in Argentina and Chile.<sup>8</sup> Following trade and financial liberalization, countries like Argentina, Mexico and Brazil started to receive large inflows of international speculative capital. Many of them seized this opportunity and applied inflation stabilization plans based on the relative stabilization of nominal exchange rates (this time accompanied with measures to drastically reduce or eliminate inflation indexing of contracts).

This was on the whole quite successful in bringing inflation down. The combination of large capital inflows in a context of economic recovery, dismantling of import controls and overvalued real exchange rates (due to the stabilization plans) led to a large increase in imports across the whole region, particularly from the USA (Medeiros, 1997, Medeiros and Serrano, 1999).

The case of Mexico, one of the very few countries of the region that, because of NAFTA, actually saw a high rate of growth of exports, is a very good example of how the deterioration of the current account deficit to exports ratio, due to the import boom, leads to a situation of constrained growth even when the inflow of FDI is quite large. In fact, in 1990, Mexican exports reached US\$ 40.7 billion, which was about 28 per cent of all Latin American exports. In 1998 Mexico exported US\$ 117.5 billion dollars increasing its share of Latin American exports to 46 per cent.

However, rather than bringing fast growth, the Mexican exports came together with an even more spectacular expansion of imports. Since the 1994 crisis that led to a 6 per cent fall in GDP in 1995, the trade balance shifted back into surplus. On average, the Mexican economy grew modestly in the 1990s, in spite of having had an above-average performance compared with the rest of Latin America. What happened in Mexico was a very fast increase in the import coefficient and of the remittances associated with the foreign direct investments that elevated the ratio of current account deficit to exports from 15.3 per cent in 1990 to 41.7 per cent in 1994. With an increasing share of Mexican exports being concentrated in the maquiladoras where the creation of domestic value added is very low and with the non-tradable sector constrained by a relatively restrictive macroeconomic policy, the Mexican economy did not manage to transform its export growth into an engine for overall economic growth. When, after 1994 the real exchange rate was devalued and kept low, and particularly in the last few years when oil prices increased sharply, the current account was stabilized and the expansion of exports did come together with a higher rate of economic growth. These years of faster expansion however merely compensated for the big 1995 recession and in the end in both halves of the 1990s Mexico (after growing on average only 1.9 per cent in the 1980s) kept the disappointing average rate of growth, for a country with so much catching up to do, of around 3.5 per cent as can be seen in Table 11.2 below.

*Table 11.2 Growth and the current account/export ratio in Mexico*

	GDP growth rate (percentage)	Current account deficit/exports
1990	–	15.3
1991	4.2	–
1992	3.6	–
1993	2.0	–
1994	4.4	41.7
1995	–6.2	1.8
1996	5.2	2.2
1997	6.8	6.1
1998	4.9	12.2
1999	3.7	9.4
2000	7.0a	–

*Note:* a = preliminary estimate.

*Source:* ECLAC statistical yearbook 2000 (ECLAC, 2001)

### **The Debt Crisis, Stagnation and the Acceleration of Inflation in Brazil**

Just like the other Latin American countries, the Brazilian economy was very much affected by the interruption of capital flows in the 1980s and their resumption in the 1990s.

This relatively sudden resumption of capital flows was decisive for economic recovery in the early 1990s and the dramatic reduction and successful stabilization of the rate of inflation was obtained in mid-1994 with the Real Plan, which was based on the comprehensive elimination of the indexation of the economy and (more crucially) on strict control of the nominal exchange rate.

The external debt crisis and interruption of capital flows in the 1980s although as in other Latin American countries they had different effects on the Brazilian economy because of some distinctive features of this economy and its economic development strategy (see Serrano, 1998).

One of these peculiarly Brazilian features was the very high degree of domestic price indexation of the economy. In fact, widespread indexation in Brazil can be traced back to the mid-1960s. The military government of the time decided to follow a development strategy in which the local currency should not be allowed to become persistently overvalued relative to the US dollar. This led to a crawling peg adjustable exchange rate regime with quite frequent mini-

devaluations. This continuous nominal devaluation of the currency by its turn led to the need to formally index interest rates on government bonds (the so called 'monetary correction' mechanism) in order to prevent capital flight. Indexation then spread to all financial contracts and also to taxes and tariffs on public utilities and introduced an element of inertia in inflation which at the same time made necessary or perhaps inevitable (even in a politically repressive regime) a partial but later increasing indexation of nominal wages. The latter by its turn reinforced the inflationary inertia in inflation rates giving further stimulus to widespread indexation of all contracts.

Therefore, when the external shocks of the early 1980s and the debt crisis hit Brazil, the economy already had a very high degree of indexation and a relatively high persistent rate of inflation. This explains why inflation accelerated so much and reached such high and persistent levels in Brazil during the 1980s. The debt crisis led to the so called 'maxi-devaluations' over and above the crawling peg as an attempt to alter the real exchange rate, to promote exports and cut imports in order to obtain a trade surplus large enough to service the debt and make up for capital flight (the latter being a less serious problem in Brazil because of capital controls and the indexed, and on the average quite positive in real terms, interest rate). Those maxi-devaluations led to an acceleration of inflation and led to further increases in interest rates and then wages. On the other hand, the system of generalized indexed contracts allowed the economy to operate normally in spite of record high rates of inflation. Thus, indexation at the same time made inflation rates much higher and more persistent than in other countries of the region but at the same time prevented the disorganization of the economy that happens under open uncontrolled hyperinflation.

In the period between 1982 and 1994 many different types of inflation stabilization plans were attempted. But, regardless of such efforts, until the Real Plan the Brazilian economy lived under permanent inflationary conditions with strong trends towards hyperinflation, briefly contained by increasingly ineffective stabilization attempts. By the end of the decade annual inflation rates reached four digits.

Another feature of Brazilian development strategy that was crucial in explaining the peculiar performance of the economy in the 1980s was that, in marked contrast with many other Latin American countries (where the external debt financed capital flight) from the mid-1970s a good part of the Brazilian external debt was used to finance the Second National Development Plan which invested heavily in the capital goods sector and infrastructure. Those investments were instrumental in reducing the dependency of the economy on some imports (such as oil, for instance) and more importantly, served to complete the local industrial base (including some indigenous technological capacity) and provided the cost externalities (in transportation, energy and basic inputs) that allowed the country to become a major exporter of industrial commodities within a short space of

time. This successful export performance coupled with the policy-induced stagnation of the economy and other measures to ration imports, allowed the country to produce large trade surpluses after 1983 for ten years. Brazilian exports increased from US\$ 15 billion in 1979 to around US\$ 34 billion in 1989.

Although relatively successful in servicing the debt and preventing economic collapse this export performance appears differently when compared with other developing countries outside Latin America. Indeed, the average rate of growth of exports in the 1980s, of about 4.5 per cent a year was below the growth of world trade and around only one-third that of countries such as China or Korea over the same period.

Under these circumstances the control of imports was made inevitable and even then foreign exchange reserves were not stabilized. By 1990 Brazilian imports in current dollars were still below the 1980 levels (see Table 11.4 below). The whole export expansion was absorbed by the debt service and did not improve the capacity to import. When the Brazilian economy returned to the international financial circuit in the early 1990s, its industry and its overall international competitiveness were significantly inferior, relative to the rest of the world than at the beginning of the 1980s.

This whole process made Brazil achieve an average GDP growth rate of only 1.6 per cent in the 1980s. This was a little worse than Mexico, substantially lower than Chile (3 per cent) and Colombia (3 per cent), countries where the capital flows were not cut off so drastically and were resumed earlier, but still much better than Argentina (-0.7 per cent) and many of the other smaller countries in the region.<sup>9</sup>

### **The Resumption of Capital Flows, the New Exchange Rate Policy and the End of Inflation**

Import liberalization started in Brazil in 1990 when, following very closely World Bank advice, Brazil dismantled a number of non-price import restrictions and started reducing tariffs. However, since the economy was in recession at the beginning of the decade the value of imports only started growing more substantially after 1993 when a more sustained economic recovery began.

In May 1991, an important regulatory change in Brazil (the so called 'Annex IV'), which allowed foreign ownership of domestic portfolio investments marked the beginning of a large inflow of capital, after almost ten years of very small flows.<sup>10</sup> In that same year the central bank started the policy of creating an interest rate differential between internal and external rates way beyond any possible expectation of devaluation of the exchange rate (which was still indexed to inflation to avoid overvaluation). This policy started attracting large capital inflows. Given that the value of exports was growing at a relatively high

rate in the period 1992–4, that imports had not yet started growing and that there had been cuts in the international interest rate that eased the servicing of the ‘old’ external debt, the result of these initial surges of capital inflows was a fast accumulation of reserves, which more than doubled between 1991 and 1992.

These events show clearly the exogenous character of these inflows. When they began to mount, the economy was stagnated, inflation was more than 400 per cent a year, and the so-called fundamentals were far from right. Indeed, capital inflows picked up so much momentum that in spite of the subsequent import boom and slowdown of exports and more generally of the increase in the current account deficit, the growth of foreign exchange reserves between 1991 and 1996 was of 539 per cent.

For a number of reasons, mostly related to the domestic political situation and the election calendar, it was only in 1994 that the government took full advantage of this new external situation to launch a new (and this successful) radical stabilization plan, the Real Plan.

This plan, like the failed 1986 Cruzado Plan, was based on stabilizing the nominal exchange rate and eliminating indexation of wages, prices and financial contracts.

The main differences were a certain lack of preoccupation with possible real wage losses, a long preparatory phase to synchronize relative prices and other contracts<sup>11</sup> and the maintenance of record high interest rates in order to ensure a continuation of the inflow of foreign capital.

Interest rates were set so high when the monetary reform began that they quickly led to a nominal appreciation of the new currency, which was supposed to be pegged on a one-to-one basis to the US dollar but eventually went as high as 85 cents of Real to the Dollar for a short while. The Brazilian central bank then followed a policy of frequently and gradually making small devaluations. This policy was run until early 1999 but, as subsequent events have shown, was not enough to correct the chronic overvaluation. The plan was extremely successful in bringing inflation down and keeping it low. Inflation rates of 43.1 per cent a month in the first half of 1994, fell to 3.1 per cent in the second half of that year and to 1.7 per cent in the first half of 1995 (Calcagno and Sainz, 1999, p. 13). Annual inflation was brought down to less than 5 per cent in 1998 and 1999, in spite of the large devaluation in the latter year, showing that the government did really succeed in eliminating indexation and ‘real wage resistance.’<sup>12</sup> The behaviour of the rate of inflation and the nominal exchange rate can be gauged from Table 11.3 below.

The Real Plan represents a complete break with the macroeconomic policy of relative real exchange rate stability which had been maintained more or less consistently (in spite of everything) since the 1960s in order to avoid compromising the export performance of the economy.

*Table 11.3 Yearly rates of inflation and nominal exchange rate devaluation*

	Implicit GDP deflator	Real/US\$ average exchange rate
1991	416.7	497.9
1992	969.0	1011.4
1993	1996.1	1853.9
1994	2240.2	1888.9
1995	77.5	43.6
1996	17.4	9.6
1997	8.2	7.3
1998	4.7	7.7
1999	4.3	56.4
2000	8.6	–

*Source:* IPEADATA database ([www.ipeadata.gov.br](http://www.ipeadata.gov.br)).

The government shifted to a policy of trying to achieve the maximum possible stability of the nominal exchange rate in order to control inflation and prevent the return of indexation. This policy seemed also to be strictly necessary for the strategy of financing growing trade and current account deficits.

### **The Unsustainable Current Account and Slow Growth**

The combination of an appreciated currency in a new environment of liberalized imports (which were further liberalized in the first months after monetary reform) with a credit boom that followed the stabilization naturally led to an explosion of imports.

Very quickly, monthly figures for the growth of imports more than doubled. As exports could not and did not follow suit, Brazil ran a trade deficit in 1995, after more than a decade of surpluses. The fear of a Mexican-style balance of payment crisis quickly made the authorities put brakes in the economy mainly through monetary policy (credit controls and stratospheric interest rates), but also by attempts at controlling the growth of public expenditure and tax increases.

Indeed, in spite growing interest payments (reaching 7.5 per cent of GDP in 1998) that seem to have had little if any effect on aggregate demand, the highest primary deficit in the period was around one per cent of GDP in 1996 and 1997.

These policies of containing the trend growth of aggregate demand have been followed more or less consistently from 1995 to the beginning of 1999, avow-

edly to control demand inflation but in fact dictated mainly by the surprising and unexpected ever-worsening current account figures, and doubts about their ability to finance it adequately.

During this period GDP growth was brought down from 5.8 per cent in 1994 to a meagre 0.2 per cent in 1998. Even then the current account deficit as a proportion of the GDP measured in current dollars swung from practically zero in 1994 to 4.3 per cent in 1998.

Remittances for payments of profits and interests grew from 23 per cent of exports in 1994 to 39.9 per cent in 1998, reflecting the high dollar interest rates paid to foreign investors in Brazilian assets and also increasing payments of royalties, patents and licenses, as Brazil progressively abandoned its policy of creating local technology and the shift in its diplomatic position in terms of payments for 'intellectual property rights'.

If we look at our favourite measure of the sustainability of the current account, which is a change in the ratio of the current account deficit to exports, we see that in the period 1994–8 this indicator shifted from 3.9 to 65.8, a deterioration of approximately 1580 per cent. This had the inevitable consequence of increasing the growth of Brazil's net external liability position, i.e. the sum of foreign debt plus accumulated FDI. This position, according to some estimates increased from approximately US\$ 165 billion in 1994 to around US\$ 303 billion in 1998. The country's net external position, calculated as a ratio to exports, shifted from 3.8 to 5.9 over that same period.

Table 11.4 below contains data for the many of the indicators discussed above for Brazil in the 1990s.

Given the overvaluation and the misguided industrial policy strategy, the current account was clearly on an unsustainable path, even with ever-slowing growth. To make matters worse, the increase in reserves and large and growing current account deficits were originally financed through the accumulation of a high level of short-term debt and portfolio investments.

After the Russian crisis of mid-1998 that led to a fall in international commodity prices of many Brazilian exports and to the downgrading of Brazil by the credit rating agencies, the situation became critical. A 'preventive' IMF agreement was made and it was meant to avoid a major devaluation. In the months that followed, short-term capital quickly flowed out of Brazil, and the country lost a large amount of foreign exchange reserves in a few months. A major devaluation became increasingly expected by the market in spite of repeated denials by both government and IMF officials.

Banks started reducing their exposure to Brazil. According to Baig and Goldfajn's (2000) estimates, international banks reduced their overall exposure to Brazil from US\$ 84.6 to 62.3 billion during 1998. The net outflow of short-term capital which started in 1997 was of more than US\$ 30 billion during 1998 (see Table 11.4).

Table 11.4 *Macroeconomic indicators for Brazil*

	Exports	Imports	GDP (growth)	Ratio of net factor payments abroad to exports	Ratio of current account deficit to exports	Ratio of current account deficit to GDP*	Ratio of net foreign liabilities to exports	Foreign direct investment	International Reserves (million US\$)	Short-term capital flows
1991	0.6	1.8	1.0	-	-4.4	0.0	4.73	-	9 406.4	-7406
1992	13.2	-2.3	-0.5	-	17.2	1.5	4.15	1 924	23 754.3	-2844
1993	7.7	22.9	4.9	-	-1.5	0.0	4.09	801	32 211.2	-4432
1994	12.9	31.0	5.8	23.0	-3.9	0.0	3.81	2 035	38 806.2	-3824
1995	6.8	50.7	4.2	27.7	-38.6	2.5	3.64	3 475	51 840.3	15523
1996	2.6	7.0	2.7	33.4	-484	-3.0	4.15	11 666	60 110.1	4857
1997	11.0	12.0	3.3	36.6	-58.1	-3.8	4.70	18 608	52 172.7	-15517
1998	-3.5	-3.3	0.2	39.9	-65.7	-4.3	5.93	28 541	44 556.4	-30032
1999	-6.1	-14.7	0.8	41.2	-52.2	-4.5	7.02	30 254	36 342.3	-1943**
2000	14.0	13.2	4.5	-	-44.7	-4.2	6.68	-	-	-

Notes: \* GDP in US\$; \*\* Up until November 1999.

Sources: IPEADATA ([www.ipeadata.gov.br](http://www.ipeadata.gov.br)), ECLAC (2001), Mignel and Cunha (2001), Baig and Goldfajn (2000).

The debt rollover rate for short-term loans fell to 0.62 between 1 October and 31 December 1998. In January 1999 a new director was appointed to the Brazilian central bank who tried to accelerate the devaluations gradually according to a new formula. The decision seems to have taken the IMF by surprise. It led to a lot of confusion and apparently the Brazilian central bank was not allowed to intervene to support the new regime using funds which were de facto under IMF control. That, amidst intense speculation, led to the quick collapse of the new scheme. The currency was allowed to float, and the new central banker was duly removed and replaced. The exchange rate suffered wild gyrations for some time, and only when yet another central banker with tacit IMF permission to intervene was appointed did the market calm down.

After that Brazil officially adhered to a 'free' floating exchange rate regime and to a monetary policy of 'inflation targeting' mainly through nominal interest rate changes. The floating however was far from 'clean' and interest rate management was not independent of balance of payments considerations. Interventions were frequent and some of the interest rate changes were clearly made with the exchange rate in mind. In any case, the fact that formal indexation of interest rates, exchange rates and wages were eliminated prevented the exchange rate supply shock turning into an accelerating inflation spiral. The crisis, and a very tight fiscal policy aimed at stabilizing the internal debt-to-GDP ratio in a situation of very high real interest rates, brought the economy to a standstill.

However, from the second semester of 1999 a recovery began and the economy actually grew 0.7 per cent in that year. After the situation was normalized, capital flows were resumed. Banks reopened credit lines although now with a permanently reduced exposure to Brazil.<sup>13</sup> This turned out not be a pressing problem since by then foreign direct investment, which was already following a very fast rising trend since 1994, increased even further to record levels for a few years. FDI flows increased from little more than US\$2 billion in 1994 to more than US\$ 30 billion in 1999. After peaking in 2000, the FDI flow started decreasing again in 2001 raising new fears about the external financing of the country.

The main feature of this FDI boom is the predominance of acquisitions of existing local firms, whether already in the private sector or through privatization, instead of the installation and expansion of the operations of foreign firms in the country as in the 1970s. Also these capital flows, contrary to naive official expectations, have not had a major positive impact on export performance, nor are the investments geared to import substitution. On the contrary, given the concentration of these flows on largely non-tradable sectors (especially services such as telecommunications) and the natural tendency of multinationals (when allowed by policy) to import a large fraction of their inputs and components the FDI has helped to increase the import coefficients of a number of sectors of the Brazilian economy that have very high income elasticity.

Before looking at the data one would have expected that after the 'preventive' IMF agreement in 1998 and the devaluation and crisis in early 1999, things would have changed and the Brazilian economy and in particular its current account would by now be on a sustainable growth path. That unfortunately does not seem to have been the case. In spite of the very slow growth in 1999 and the large real devaluation, the current account deficit fell by about US\$ 8.5 billion, a little more than the fall in imports. Exports actually fell in 1999 because of the fall in international commodity prices and had not recovered their current dollar value of 1998 by the end of 2000.

The change in the exchange rate regime led to a substantial reduction in interest rates and easing of credit, which together with some spontaneous import substitution induced by the devaluation made the economy grow 4.4 per cent in the year 2000 in spite of the tight fiscal policy. However, the current account deficit seems to be stuck at around 4 per cent of GDP. Recent studies show that such deficits would require very high average rates of export growth, in excess of 10 per cent a year, almost twice the historical average, in order to be sustainable (Miguel and Cunha, 2001).

On the other hand, as economic growth recovers imports are beginning to grow fast again. Moreover the recent (2001) fall in flows of FDI, precisely as the global markets are getting turbulent over the troubles of Argentina, has made the Brazilian central bank abandon its forecast of 4.5 per cent growth in 2001 and emit some signs, by raising interest rates, that it might be getting ready to slow the economy down reverting to its moderately more expansionist policy stance adopted after the dust of the big devaluation settled.

In the end, what Brazil has to show for this immense accumulation of foreign liabilities is an average growth rate of GDP in the 1990s of merely 2.6 per cent, a single percentage point more than in the so-called 'lost decade' of the 1980s and almost a whole point less than the 3.3 per cent average growth rate for Latin America from 1991 to 2000 (ECLAC, 2001).<sup>14</sup>

The structural reasons behind this continuing external fragility are related to a number of factors. First, to the size of the already accumulated net foreign liability position and the associated remittances of factor services' income. Another problem is the very high income elasticity of industrial imports and the rather low income elasticity of exports that is being observed even after the big devaluation. These very unfavourable elasticities are mainly the result of the re-specialization of the Brazilian industry and in particular of the capital goods and intermediate goods and components sectors. This re-specialization of Brazilian industry was induced by policies and disincentives that were explicitly meant as an abandonment of the state-led development strategy, a strategy that made Brazil one of the fastest growing economies in the world until the early 1980s but that was seen by the Collor (1990) and later the Cardoso administrations (1995–2002) as having produced an inefficient and outdated manufacturing

sector that would be modernized without the need of traditional industrial policy merely by exposing the system to strong foreign competition.

The current difficulties that Brazil faces are the direct result of these policies. Facing the loss of subsidies and incentives, the dismantling of a large part of the incipient technological efforts of national research institutes, state-owned enterprises and universities, the disorganization of a messily privatized infrastructure,<sup>15</sup> an unfavourable exchange rate, a much higher cost of capital and a slow-growing domestic market (that did not help in terms of economies of scale), it is not very surprising to find that since the early 1990 the structure of Brazilian industrial exports has changed back a bit towards more natural resource-based goods and standardized industrial commodities.<sup>16</sup>

On the other hand, many of the same factors, and the opening of the economy to foreign competition, have given a strong impetus to the growing use of imported capital goods components and inputs (Brazil is now a net importer of raw cotton and there is not a single microchip factory in the country) even of the products that are still being produced in the country. The 'competitive' re-specialization of the Brazilian economy has resulted in a reduction of its industrial diversification, in exports more concentrated in sectors with lower technological content and lower international demand growth rates.<sup>17</sup> At the same time this re-specialization brought with a large increase in import coefficients,<sup>18</sup> creating an inherent tendency towards growing deficits. It seems that the reversal of this situation will take much more than a sensible exchange rate policy (although that does really help) and would require restarting the state-led development strategy which would entail rebuilding the state's regulatory and incentives framework and a major new industrial policy effort. That is as difficult to do as it sounds even if there is the political will (since it has been done in the past) but it is extremely unlikely to happen in the near future.

## CONCLUDING REMARKS

In this chapter we have argued that in the current floating dollar standard the balance of payments situation facing the emerging markets is characterized by a basic contradiction. On one hand, it is extremely easy to attract large amounts of foreign capital. On the other hand, it becomes more and more difficult to deliver the fast growth of exports that is a necessary condition for the financial servicing of these inflows.

This basic contradiction is greatly strengthened in countries that have followed more closely the 'Washington-consensus' fashionable package of trade and financial liberalization together with the control of nominal exchange rates. In these cases, the amounts of capital attracted are even bigger but at the same time the tendency towards overvaluation, deindustrialization and dismal export

performance are much stronger. Moreover, the relative lack of control of short-term capital movements does add to the unsustainable trend of that current account a large probability of an exchange rate collapse and an external financial crisis. In our view the case of Brazil in the 1990 illustrates very well these dangers.

## NOTES

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1. In what was to be his last book Hicks (1989) noticed that from the beginning of the 1980s, the USA had taken for itself the responsibility of making the US dollar the international currency and thus correctly adopted a 'passive' attitude towards its balance of payments results. However, Hicks asked himself if this role could be performed by a 'weak' currency like the dollar. By 'weak' Hicks means the currency of a country that tends to run current account deficits. More than ten years later, the answer seems to be yes, it can and it does.
  2. Medeiros (1997) showed how the FDI export connection found in Asia in the 1980s was a product of particular circumstances involving US trade policies, the Japanese reaction to yen revaluation and local state development policies and could not be generalized to Latin America. More recently Agosin and Mayer (2000) have confirmed econometrically that FDI did seem to 'crowd in' investment in Asia while it seems to 'crowd out' investment in Latin America.
  3. Indeed, for most developing countries the same rates of growth are associated with much bigger trade deficits than in the past.
  4. As show by Kregel (1996), if the capital account is really open, even the capital that came in as FDI may quickly and easily transform itself in to speculative capital, something that weakens somewhat the idea that external financing via FDI would expose the economy less to exchange rate speculation and external liquidity crises.
  5. See among others Calvo et al. (1993). The capital flows toward Latin America in the early 1990s depended heavily on the lowering of interest rates and regulatory changes in the USA: 'the most salient changes were the approval of Regulation S. and Rule 144a which reduced transaction and liquidity costs faced by developing countries in approaching capital markets there' p. 128.
  6. See Rodrik and Velasco (1999) and Kaminski et al. (1998).
  7. See Ffrench-Davis and Reisen (1997).
  8. Initially Chile and Argentina followed a policy of pegging the nominal exchange rate between 1978 and 1982 (without eliminating domestic indexing clauses in wages and contracts), preceded by wide-ranging trade and financial liberalization. Capital flight plus the fast growth of external liabilities, at a moment when international interest rates where at record high levels, led to a serious crisis and the insolvency of the domestic financial system. In both countries this led the State to take over the private sector external debt, to nationalise many banks and control imports again.
  9. Data from ECLAC (2001).
  10. See Carneiro (1997)
  11. Synchronization was achieved through a special transitory unit of account, the URV (Unit of Real Value) by which wages were compulsorily converted at their average level over a period, while other prices were freely and voluntarily converted at any desired rate.
  12. In this the government was helped not only by weakened unions and high unemployment but also by the favourable trend of relative prices of foodstuffs, which have been following a longer-run downward trend due to the modernization of large-scale Brazilian agriculture since the 1980s and by the resumption of easy (but not cheap) consumer credit, which gave to a large number of poorer Brazilians the opportunity to buy consumer durables.
  13. Note that in the case of Brazil, the devaluation did not cause banking crises. Domestic banks

- were not much in debt in foreign currency and had been 'strengthened' by a major central bank programme, Proer, just after the 1994 stabilisation. See Calcagno and Sainz (1999).
14. Brazil which grew around 7 per cent a year from 1945 until the late 1970s became a low-growth country. In the 1990s it grew less than Argentina, Bolivia, Chile, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru and the Dominican Republic (ECLAC, 2001).
  15. The most glaring case is that of electricity. The partial privatization lack of an adequate regulatory framework, together with the government not allowing the still state-owned power generators to invest have made investment in that sector fall from around US\$ 8 billion a year in the 1980s to around US\$ 3 billion in the 1990s. Not surprisingly energy rationing schemes are probably going to be introduced in the next few months.
  16. As a result of this anti-export policy bias in 1998 the Brazilian share of world exports in 1998 was lower than 1980 while over the same period Korea's share doubled and China's trebled.
  17. According to a recent study, the Brazil's share in export markets classified as 'very dynamic' fell from 20 per cent to 13 per cent during the two halves of the 1990s. These changes happened in the composition of exports not of imports that remain concentrated in the 'very dynamic' sectors. See IEDI (2000).
  18. According to Mesquita (2000) the share of imports on the value of gross output in Brazilian manufacturing industry increased from 5.7 in 1990 to 20.3 in 1998. Over the same period the ratio of exports to gross output increased from 9.4 per cent to 14.8 per cent.

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