

Contents

1. Introduction
 2. The “Black September” of 1998
 3. The Brazilian Reaction
 - 3.1. The Fiscal Measures
 - 3.1.1. The 1997 Adjustment Package: What Went Wrong?
 - 3.1.2. The New Package
 - 3.2. External Aid
 - 3.3. Medium- and Long-Term Strategy
 4. Where Is Brazil Headed?
 - 4.1. Primary Surplus and *Fundamentals*
 - 4.2. The Policy of Gradual Devaluation
 - 4.3. Competition from Asian Exports
 - 4.4. Maintenance of Long-Term Confidence
 - 4.5. Beyond the Short-Term: The Basis for Sustainable Growth
 5. Conclusion: 1999, a Turning Point?
- References

“A bank is an establishment which lends you an umbrella on a sunny day and wants it back when it starts raining.” (Robert Frost.)

1. Introduction

In the third quarter of 1998, the Brazilian economy experienced a number of difficult moments. This was particularly so in September, when international credit dried up following the Russian government's decision to default on its internal debt. This led to the reemergence of the specter of a “debt crisis” similar to that of the 1980s, with major suppliers of international funding reacting by withdrawing new loans, not only of net new money, but also refunding of existing loans that were reaching maturity. This typical *panic situation* that was characterized by a *herd behaviour* on the part of various agents, created a genuine *credit crunch* that affected both emerging and mature economies. In the wake of the crisis, the growth prospects for the US and European economies were scaled back, a number of major banks with large exposures to emerging economies suffered heavy losses, several of the principal international *hedge funds* that were highly leveraged came under severe threat, with one of the most important of these obliged to declare bankruptcy, and even triple-A rated companies had problems obtaining credit in the US market in the months following the start of the crisis.

The world economy thus faced yet another downward leg of one of the boom-to-bust cycles that have characterized the development of financial markets over the course of world history, with periods of high liquidity succeeded by periods of credit shortages. The end-1998 crisis is yet another typical example of the *fallacy of composition*, in which the cumulative effect of patterns of behavior that are rational on an individual basis results in a situation that is inconsistent in macroeconomic terms. This occurs for the obvious reason that countries that have previously been large importers of capital are unable to adjust suddenly to the point that they no longer need net foreign funding, and are able to repay installments on existing debts.

This situation, and more specifically, the influence on the decisions of each financial agent by other agents, recalls Keynes' argument in the famous Chapter 12 of his *General Theory*, with regard to longer-term expectations, and the way in which these are affected by short-term factors, namely: “... it is not sensible to pay 25 for an investment of which you believe the prospective yield to justify a value of 30, if you also believe that the market will value it at 20 three months hence” [Keynes (1936, p. 155)].¹

¹ There is a notable analogy between the market psychology to which Keynes refers in the quoted chapter, and the situation experienced by Brazil in this particular crisis. This is made even clearer in the following and equally famous passage: “... professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the price

In terms of the above analogy, we view Brazil as being the “long-term option that should be worth 30”. This leads to a curious situation. In 1995, a) the real exchange rate had appreciated substantially since the start of the Real Plan, with the government having no plans to change this situation, b) Brazil had a growing current account deficit, that nevertheless did not concern the government at the time, and c) the primary public sector deficit had deteriorated visibly. That is to say, 1995 was a year in which the fundamental parameters of the economy were clearly out of line. However, Brazil enjoyed a massive capital inflow, which despite a US\$ 18 billion current account deficit, led to an overall increase in reserves during the year of more than US\$ 13 billion. In 1998, on the other hand, a) the real exchange rate was depreciating at a relatively rapid pace, with the government committed to maintaining this gradual devaluation policy for several years to come, b) the current account deficit was stabilized, with the government carrying out a series of programs to reduce it in the future, and c) the primary public sector deficit began to improve after three consecutive years of deterioration. In other words, 1998 was a year in which Brazil was making a visible effort to impose consistent and sustainable long-term policies, and yet, at the same time, faced generalized skepticism regarding the viability of its strategy.

In the light of the above considerations, this article aims to indicate to readers that Brazil's economic policy is sustainable over the next few years. We intend to show that in its given context as a developing country, once Brazil has come through a difficult year in 1999, it has the scope to become one of the most solid emerging economies in the world, in so far as: a) it is unequivocally committed to maintaining stable prices; b) it is in the process of carrying out a devaluation relative to 1996 of around 30% in real terms; c) there are good chances of it reducing its current account deficit to GDP and Public Sector Borrowing Requirements (PSBRs) to GDP ratios;² and d) there is a favorable medium- and long-term growth outlook.

This article is divided into five sections. Following this brief introduction, we comment on the most important aspects of the “Black September” of 1998 and the Brazilian reaction. We then develop a number of issues that allow us to understand why Brazil's medium- and long-term prospects are favorable, and end with a section of concluding comments.

2. The “Black September” of 1998

being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one's judgement, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest ... *we devote our intelligences to anticipating what average opinion expects the average opinion to be*” [Keynes (1936, p. 156, our emphases in italic)].

² Throughout the text, the Public Sector Borrowing Requirements is assumed to be in nominal terms.

Shortly after the auction of the Telebrás group companies at the end of July, Brazil began to lose its foreign currency reserves. At first sight, the variation in international reserves during August was relatively slight, since the privatization sales took place at the end of July, and were liquidated some days later, causing an inflow of around US\$ 5 billion at the beginning of August alone. Excluding this amount, however, we are led to conclude that over the course of the month, Brazil lost around US\$ 8 billion in reserves. The level of international reserves, which by the cash concept, had reached US\$ 74 billion in April, had already fallen to US\$ 66 billion at the end of August. It was nevertheless in September that the crisis deepened, and Brazil lost a further US\$ 21 billion, ending the month with reserves of US\$ 45 billion. It is estimated that in the first week of August, after the Telebrás auction and before capital began to flow out of Brazil in a significant way, the country's international reserves returned to their April levels of US\$ 74 billion. On this basis, in the 50 day period between this point and the end of September, Brazil lost some US\$ 30 billion in reserves.

The outflow of capital had a series of causes, and more specifically, was due to the following factors that affected emerging economies in general:

- the effect of the Russian moratorium on the availability of credit for emerging economies; and
- the requirement among large international banks to cover losses in one market by selling positions in another.

In addition, the following factors had a specific impact on Brazil's situation:

- the fears that the contraction of credit availability would make devaluation unavoidable;
- the rumor that certain factions within the government were recommending a larger adjustment to the exchange rate;
- suspicion among market players that the government, or factions within it, were considering the adoption of some kind of barrier to capital outflows;³ and
- a fall in the prices of Brazilian securities issued abroad to such large secondary market discounts that it became advantageous for companies based in Brazil to repurchase these.⁴

Under such circumstances, the tendency for capital to flow out of Brazil on a short-term basis, regardless of the country's medium- and long-term potential, was to a certain degree natural, given that an abrupt change in exchange rate

³ In addition to all this, there was the proximity of the presidential elections, a period which is always subject to discussions regarding possible changes in policy.

⁴ In such a situation, it should be noted that the initial negative impact on the balance of payments may be transformed into a double advantage in the future. If, for example, a company that would have had to repay a debt of 100 after 1999, retires this debt in 1998 at a 50% discount to face value, for each US\$ 1 that flows out of the country in 1998, there will be a posterior reduction in capital outflows of US\$ 2 with regard to the original amortization schedule.

policy and/or the adoption of some form of capital controls would affect the return on and liquidity of foreign capital invested there.

The government reacted immediately in two ways. On the one hand, it attempted to reaffirm in every possible way that it was committed to maintaining its exchange rate policy, and that it was not considering the adoption of any kind of curbs on capital outflows. On the other, it undertook the emergency measure of raising overnight rates from around the 20% level at which they stood before the Russian crisis to an initial 30%, which proved inadequate, and then some days later, to 40%, in an attempt to entice investors to remain in Brazil.

At the same time, as a consequence of the rise in interest rates, the government adopted a series of primary adjustment measures in attempt to prevent further growth in the PSBRs.

Despite the rise in interest rates, Brazil continued to experience a more or less regular capital outflow of around US\$ 300-400 million per day, even if this was offset by a number of large capital inflows on particular days, associated with inward transfers for direct investment. These operations included the advance payment of installments for some of the new subsidiaries of Telebrás, whose purchase had initially been financed through loans, as well as foreign currency transfers from foreign groups representing the effective payment for certain Brazilian assets whose purchase they had previously agreed.⁵

3. The Brazilian Reaction

In the light of the continuing outflow of reserves, the Brazilian authorities began to work towards the implementation of a fiscal adjustment in 1999, while at the same time taking measures to qualify Brazil for an aid package on similar lines to those previously given to countries in crisis, such as Mexico in 1995, or South Korea in 1997, with the difference that this aid would be *preventive* and aimed at *avoiding* a major devaluation, unlike the two other countries, to which external aid was given *after* their respective foreign exchange crises had occurred.

3.1. The Fiscal Measures

3.1.1. The 1997 Adjustment Package: What Went Wrong?

Before analyzing the fiscal measures announced at the end of 1998, it is useful to study the outcome of the package that had been announced a year earlier, but whose implementation was subsequently considered to be a disappointment. As is known, at the end of 1997, the Brazilian government had announced an

⁵ The Telebrás companies were sold on the basis of a *down payment* of 40%, with two remaining installments of 30%, financed by the Federal Treasury. In the case of some subsidiaries, these were paid in advance shortly afterwards.

ambitious fiscal adjustment plan, but within only a few months, it had become clear that the results fell well short of expectations. There are various reasons for this that are worth discussing in detail in order to determine the chances of success of the new measures. Of these, five points are of particular importance:

- the notable deterioration in the 1997 primary result, in relation to the figure that had been expected in November of that year, when the measures were announced;
- spending by state governments of revenues from privatizations at state level;
- the overestimation of real growth and inflation in drawing up the 1998 Budget;
- the absence of effective spending cuts for 1998, relative to 1997; and
- the absence of an official target for the primary surplus.

Let us consider these questions in greater detail. In the first case, it must be remembered that in Brazil, fiscal data for a given month (t) is published around the 10th day of the third successive month ($t + 3$). It therefore follows that at the start of November 1997, the last available fiscal data had been published in October of that year, and covered the period up to July. Data for five months of the year were thus lacking. Unfortunately, the fiscal results for the end of 1997 were much worse than expected, a factor that also had an evident effect on the result for 1998, since it was these results that formed the basis for the adjustment measures. It should nevertheless be noted that the public sector consolidated primary result for 1998 should show a small surplus, a distinct improvement with respect to the primary deficit of 1% of GDP recorded in 1997.

With regard to the privatization of assets at individual state level, it is hardly necessary to stress the importance of such sales, both from a microeconomic and from a fiscal viewpoint. From a short term perspective, however, since Brazil is a federative state, the federal government does not have the power to determine how state governors, who have administrative autonomy, should spend their revenues, with the effect that a substantial part of the receipts from privatizations at individual state level, which are not considered as such for the purposes of calculating the PSBRs, were assigned to expenditures, leading to an initial deterioration in state deficits.

Thirdly, it should be remembered that in devising the 1998 Budget, it was assumed that the national economy would grow by 4%, at a time when cumulative 12-month inflation was around 7-8%, and apparently set on a gently declining trend. In real terms, however, the economy grew by only 0.5% during 1998, while inflation, as measured by the General Price Index (IGP) followed a course that had not been predicted by even the most optimistic of analysts, closing the year at around 1%. As a consequence, the nominal GDP figure, on the basis of which revenues are estimated, was well below the expected figure, leading to a shortfall of revenue with regard to the Budget projections, and hence a larger deficit on the basis of budgeted expenditure.

In turn, spending cuts were announced on the basis of the original Budget projections for 1998, rather than on actual 1997 expenditure. Since the original Budget projections for expenditure during 1998 were very high, it followed that, even after the imposition of cuts relative to projections, effective expenditure for 1998 was higher than in 1997.

Finally, it should be noted that the combination of these factors generated revenues that were below original expectations, and expenditure at individual state level that was above original expectations. In this way, the deficit itself became a variable for adjustment, since no automatic correction mechanisms had been included to compensate for other eventual divergences from projected results.

The relevant question is, therefore: what are the current prospects for such factors? Firstly, the fiscal result for 1998, which forms the base year for projections, will be known in March 1999, but in principle *no further surprises are expected, and the figure for the PSBRs should be close to the projected figure of slightly more than 8% of GDP.*

Privatizations at state level should, for their part, continue to pressure the deficit in 1999, albeit to a lesser degree than in 1998, since state governments are likely to exhaust their stocks of suitable assets during the course of the year. The important point to note is that from the year 2000 onwards, *state governments will be subject to an effective financial constraint*, since the sources of funding that allowed them to run high deficits in recent years will have disappeared. Most notable of these are: *a) state banks, that have been privatized or transformed into funding agencies; b) bank loans, that are now tightly controlled by monetary authorities; c) the issue of new securities, that was virtually banned from the state debt renegotiations during 1998; and d) the capitalization of interest on the securitized debt, which was also prohibited after the same renegotiation process.*⁶

In addition, the fall in inflation will in itself minimize the likelihood of estimation errors for parameters underlying the Budget. In particular, *the 1999 Budget has already been revised using realistic and thoroughly readjusted parameters*, that assume a -1% shrinkage in GDP growth, and inflation around international levels, and that practically eliminate the risk of overestimating future revenues, thereby avoiding the possibility of unrealistic projections of genuine sources of funding.

There should also be effective cuts in expenditure by comparison with 1998, with other current and capital expenditures (OCC), representing central government expenditure excluding payroll, social security spending, constitutional transfers

⁶ The debts of state governments were renegotiated and assumed by the federal government in 1998, on the basis that the latter would become a creditor of the same state governments and be repaid over a 30-year period with regular repayments based on the Price Table.

and interest on the public sector debt, set to fall by over US\$ 2 billion in 1999 with respect to 1998.

Most importantly, perhaps, this time *the government is committed not only to adopting certain measures, but also to meeting a defined target for the primary result*. This means that if, for any reason, the government fails to meet a revenue or expenditure target, it will be obliged to impose complementary measures in order to meet its goal of a primary surplus, regardless of circumstances. This indicates a greater degree of commitment to improving the fiscal budget deficit than has been the case in the past, when failure to meet targets has merely resulted in a higher deficit, without any effort by the government to compensate this.

Finally, it should be remembered that *the new fiscal package is taking place under the umbrella of a program agreed with the International Monetary Fund (IMF)*, which increases the responsibility of the authorities for meeting the projected targets.

3.1.2. The New Package

Reacting to the serious nature of the crisis, the Brazilian government announced a series of measures in the last week of October that aimed to establish a consolidated primary budget surplus for the public sector in 1999, corresponding to 2.6% of GDP. This target forms part of the agreement reached with the IMF, under the terms of which this figure should reach 3% of GDP at the end of a three-year period (Table 1). The government believes that by achieving this target it would establish the conditions for a rapid reduction in interest rates, from the October levels in excess of 40% per year, even if these are still likely to remain at relatively high levels throughout the period covered by the agreement (1999/2001).⁷

Table 1				
Fiscal Effort: Official Forecast – 1999/2001				
		% of GDP		
	US\$ Billion	1999	2000	2001
Primary Surplus Required	19.0	2.6	2.8	3.0
Central Government	13.2	1.8	2.0	2.3
States & Municipalities	2.9	0.4	0.5	0.5
State Companies	2.9	0.4	0.3	0.2

The improvement in the primary result should be achieved largely as a result of a substantial improvement in the primary result of the federal government, which,

⁷ The reasons for this are related to the expectation of a significant nominal devaluation, as well as the persistence of a high country risk spread, even if it is reasonable to expect this to decline over time.

according to the terms of the IMF agreement, should register a surplus in 1999 equivalent to 1.8% of GDP (Table 2).⁸ Also according to the authorities, the federal government expects that state and municipal governments and state companies will move from primary deficits in 1998, to primary surpluses of 0.4% of GDP in both cases.

Table 2		
Adjustment Measures - 1999		
(In US\$ Billion)		
Item		Value
Primary Result before Adjustment		-4.5
Primary Target		13.2
Fiscal Effort (Central Government)		17.7
Measures		
1. Social Security Reform		2.4
2. Administrative Reform		0.4
3. Spending Cuts		2.2
4. Social Security Contribution (Workers)		1.0
5. Social Security Contribution (Pensioners)		1.0
6. New Taxes		10.7
	6.1. CPMF (Check Tax)	5.9
	6.2. Cofins (Additional 1%)	2.7
	6.3. Cofins (Wider Basis)	1.0
	6.4. Other	1.1
Total		17.7

The proposed adjustment measures are nevertheless concentrated at federal government level. Of these, the principal ones in quantitative terms are:

- the increase in the Provisional Contribution on Financial Transactions (CPMF) from 0.20% to 0.38% of the value of each check written (this measure is expected to improve the result by 0.8% of GDP); and
- an increase in the rate and extension of the range of the Social Contribution (Cofins), which according to official calculations, should boost revenues by 0.5% of GDP.

⁸ In Table 2, the cuts in the projected 1999 Budget were presented in terms of 1998 levels of expenditure, unlike the figures that were published in the Brazilian press in the days following the announcement of the adjustment program, which included US\$ 7 billion of cuts. This latter figure results from comparisons between projected 1999 numbers and the first Budget project that was presented to the National Congress in August 1998, and subsequently abandoned.

The government also introduced a limited set of other measures, including cuts in expenditure relative to 1998, which together account for 1.1% of GDP.⁹ This calculation includes the expected results of implementing the constitutional amendments (administrative and pension), that have already been approved by Congress. If approved in full, the fiscal “package” should represent an adjustment equivalent to 2.4% of GDP.

The final objective of the adjustment is to stabilize net public sector debt at around 45% of GDP, including the monetary base, which corresponds to 3-4% of GDP. This figure stood at 33% of GDP in 1996, increasing to 35% in 1997 and to 42% in 1998. Assuming that the adjustment measures are approved, the government expects this figure to stabilize following a further increase with regard to 1998, from the end of 1999 onwards.

3.2. External Aid

The package of fiscal measures was complemented by international financial aid stemming from multilateral organizations as well as a series of governments, which should make available US\$ 41.5 billion to Brazil after the approval of the agreement between its government and the International Monetary Fund (IMF). These credits break down as follows:

Organizations/Governments	US\$ Billion
IMF	18.0
World Bank	4.5
IDB	4.5
Governments	14.5
USA	5.0
UK	1.3
Italy	1.3
Germany	1.3
France	1.3
Japan	1.0
Spain	1.0
Other	2.3
Total	41.5

The agreement will oblige Brazil to meet a series of objectives, and will be subject to monitoring, as well as to subsequent revisions as the program develops.

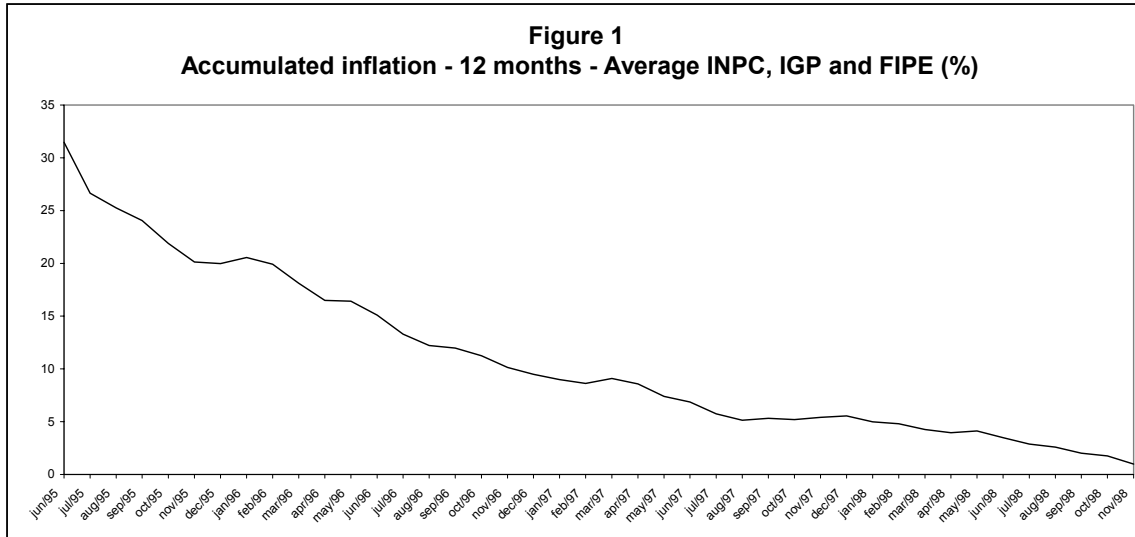
⁹ The adjustment with respect to 1998 is not equal to the sum of these components, since there is a compensating loss of certain components of revenues due to the recession expected in 1999, and an increase in certain items of expenditure relative to GDP, due to the inflexibility of the numerator, combined with a fall in the denominator.

It is hoped that this external aid, most of which will be fully available for use in the short term (during 1999, if necessary), plus a continuation of the policy of gradual devaluation, will allow Brazil to pass through 1999 without facing any new threat of a balance of payments crisis of the kind experienced in the third quarter of 1998. This expectation stems from the fact that the above credits cover not only the current portion of the deficit due to expire in 1999 that may not be covered by foreign investment inflows, but also medium- and long-term debt amortization payments.

Brazil's strategy thus rests on the assumption that after 1999, the combination of a) a fall in the current account deficit, aided by the evolution in the real exchange rate over the course of the year, and b) a gradual reopening of markets, will allow it, on the one hand to finance the marginal imbalance in its current account that is not covered by investment inflows, and on the other, to roll over debt payments expiring on an annual basis in a way that is consistent with the reduction in foreign debt parameters.

3.3. Medium- and Long-Term Strategy

The economic policy followed by Brazil since the start of the Real Plan has been subject to a number of modifications. Phases of economic expansion have alternated with recession, with shifts in direction occurring with regard to the external sector and the fiscal situation. The common element throughout this period, however, that has consistently determined the behavior of the government, has been the *systematic declining trend in inflation*. Indeed, the accumulated 12-month rate of change of the average of the National Consumer Price Index (INPC), the General Price Index (IGP) and the price index for the city of São Paulo (IPC-Fipe), which was 32% over the first 12 months of the Real Plan, and as high as 20% in 1995, fell to 10% in 1996, 6% in 1997, and 1% for 1998, figures for Brazil that until very recently would have been unimaginable (Figure 1).



In historical terms, the IGP index, the longest running of the three indicators, had never previously fallen in systematic fashion for five years in a row (from 1994/98). This index had never remained below 10% for three years in a row, and has never previously fallen to levels as low as those recorded during 1998. Such figures represent an unprecedented experience of price stability for Brazil, both as an achievement in itself and in terms of its duration. From now on, the challenge will be to preserve this situation. The fact that *the government's economic policy strategy will be entirely subordinated to achieving this objective* explains its understandable resistance to changing its exchange rate policy, on account of the risk of reversing the victories of its anti-inflationary policy.

In the light of the above, and assuming that the difficulties that the government expects to face in 1999 are overcome, it is reasonable to suppose that from the year 2000 onwards, it will be able to resume, following a three-year delay, the strategy of dealing with external and fiscal imbalances on a gradual basis that was discussed in a previous BNDES document published in 1997 [Além, Giambiagi and Pastoriza (1997)].¹⁰

The government's medium-term objective is thus to resume a sustained growth trend at a rate of 4-5% per year. In order to achieve this, it will be necessary to correct the two major imbalances that have characterized the Brazilian economy over the last few years: the fiscal deficit and the current account deficit.

In general terms, its strategy consists of:

- an initial adjustment in the primary result, based on a combination of cuts in expenditure and increases in taxes during 1999, which should be followed, from 2000 onwards, by a combination of a) moderate growth in expenditure,

¹⁰ For a more wide-ranging complementary analysis of the potential of the Brazilian economy, and the transformations that it underwent in the 1990s, see also Pinheiro (1996).

and *b*) an increase in revenues in line with GDP, in such a way as to increase the primary surplus as and when the economy begins to grow again (both factors should allow a continued and prolonged reduction in interest rates, starting as early as the beginning of 1999); and

- a gradual adjustment in the real exchange rate, in conjunction with the slowing of economic growth during 1999, against the backdrop of extremely moderate global economic growth, and a real exchange rate for Brazil that is still relatively overvalued. This will be followed by a decline in the rate of devaluation starting in 2000, with domestic demand already beginning to grow at higher rates, with these developments occurring within the context of a world economy that is growing faster, and an exchange rate that has depreciated substantially relative to 1998.¹¹

In other words, the important point to note is that two sorts of political measure are important in situations similar to the current one: *a*) a *fiscal adjustment* to reduce the PSBRs; and *b*) a *devaluation of the exchange rate* to reduce the external disequilibrium. Both sorts of measure are due to be implemented during 1999, and both will be intensified in subsequent years.

4. Where Is Brazil Headed?

4.1. Primary Surplus and *Fundamentals*

The primary surplus as a percentage of GDP (*p*) that is required to stabilize the ratio of public sector debt to GDP (*d*) may be expressed by the following formula:

$$p = d \cdot (i - y) / (1 + y) - s$$

where: *i* = the nominal interest rate on the public sector debt;
y = the nominal rate of GDP growth; and
s = issue of money (*seignorage*) to finance the deficit.¹²

The results of this formula, assuming *a*) annual inflation of 2%, and *b*) *seignorage* of 0.1% of GDP for different combinations of interest rates, public sector debt and real economic growth, are shown in Table 3.¹³

¹¹ It is important to note that the real *rate of devaluation* of the exchange rate will decline from 1999 onwards, but that the real *exchange rate* will continue to devalue in subsequent years, albeit at a slower pace.

¹² Also expressed as a percentage of GDP.

¹³ The debt concept used is that of the net public sector debt on which interest is payable. This concept thus excludes the monetary base, which certain official statistics treat as debt.

Table 3					
Primary Surplus as % of GDP, with Constant Public Debt/GDP Ratio, as a Function of GDP Growth Rate and Nominal Interest Rate ^a					
Public debt =	Nominal Interest Rate (%)	Real GDP Growth Rate (%)			
		3.0	4.0	5.0	6.0
40% of GDP	10	1.78	1.38	0.98	0.60
	12	2.54	2.13	1.73	1.34
	14	3.30	2.89	2.48	2.08
	16	4.07	3.64	3.22	2.82
	18	4.83	4.39	3.97	3.56
	20	5.59	5.15	4.72	4.30
45% of GDP	10	2.02	1.56	1.12	0.68
	12	2.87	2.41	1.96	1.51
	14	3.73	3.26	2.80	2.35
	16	4.59	4.11	3.64	3.18
	18	5.44	4.96	4.48	4.01
	20	6.30	5.80	5.32	4.84

^aAssumptions: annual inflation of 2% and monetary emission of 0.1% of GDP. The concept of net public debt here used excludes monetary basis.

With regard to interest rates, it is difficult to define in precise terms what would be a “normal” rate for the Brazilian economy. In annual terms, nominal rates were around 20%, prior to the increase to around 40% in October 1997 due to the Asian crisis. These then fell to pre-crisis levels in August 1998, before rising to around 40% for a second time in September 1998, due to the consequences of the Russian moratorium. Rates are again falling, and it is hoped that they will soon return to levels of around 20%.

On the other hand, the pre-crisis level of interest rates was negatively affected by expectations of a devaluation of 7-8%, as well as by the high country risk resulting from a high public sector deficit. We may therefore hope that in the future, with the expected decline in the nominal rate of devaluation, and by virtue of the fiscal adjustment, the level of domestic interest rates will decline even further, due both to a lower projected devaluation rate and to a lower country risk. In the medium term, nominal interest rates of around 10-12% would seem to be a suitable level, with this objective likely to be reached in around three years time.

For its part, the public sector debt, that is currently around 40% of GDP, is set to increase slightly, due to deficits for 1999 and 2000 that are expected to remain at high levels. In the medium term, perhaps around the start of the next decade, it is reasonable to suppose that the net public sector debt will stand at around 45% of GDP.

Finally, GDP growth is likely to be negative in 1999, but as and when the domestic economy revives, it is reasonable to assume that it will grow at between 4-5% per year.

Under such conditions, the stabilization of the public sector debt at around 45% of GDP, with nominal interest rates of around 10-12%, and real economic growth of 4-5%, will require, on the basis of the results of Table 3, a primary surplus of between 1.1-2.4% of GDP. Evidently, the higher the debt and the level of interest rates and the lower the rate of economic growth, the higher this primary surplus will have to be.

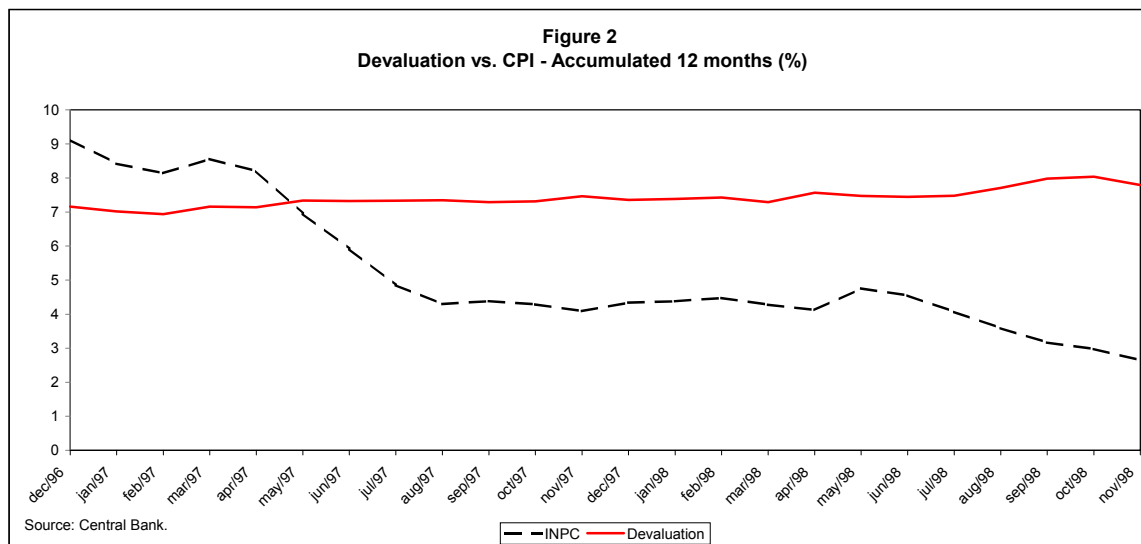
The important point to note, however, is that these levels of primary surplus are, *lower* than the primary surplus objectives for the public sector that were included in the agreement with the IMF, which assumes an initial minimum surplus of 2.6% of GDP, that subsequently rises to 3% of GDP. In the short term, on which the above factors weigh, even if the above objectives are achieved in full, this will not be enough to guarantee the stabilization of the public sector debt, both because GDP is stagnant, and principally because the level of interest rates is well above the 12% ceiling used as a benchmark in the above calculation. At the same time, it is precisely for this reason that we expect public sector debt to rise as a percentage of GDP, and have already considered that this will rise above the current level to around 45% of GDP.

In this way, if the primary consolidated target for the public sector included in the IMF agreement is maintained after 2001, the last year for which the agreement makes projections, and if interest rates fall to projected levels, the ratio of public sector debt to GDP will show a natural tendency to stabilize, in the first instance, and may even fall from 2002 onwards, provided that interest rates continue to fall, and provided that GDP growth rates exceed 5% per year over the course of the next decade.

4.2. The Policy of Gradual Devaluation

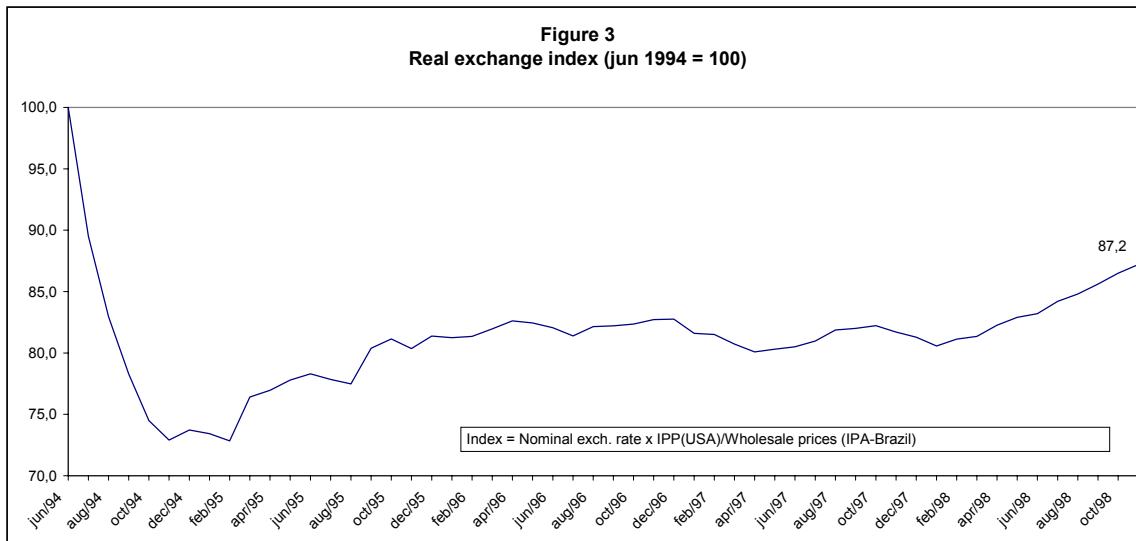
In analyses of the direction of foreign exchange policy made in recent months, many foreign analysts have understood the Brazilian government's aim as being that of defending a certain *level* of real exchange rate. This is a mistaken interpretation. No Brazilian analyst currently believes that the *present* level of real exchange rate is adequate, and similarly, nobody in Brazil believes that the real exchange rate will be held constant over the next few years. In other words, everyone understands that: *a*) the exchange rate must be devalued; and *b*) this will effectively occur. The expression "defense of exchange rate policy" to which the government is committed, implies the maintenance of a policy of nominal devaluation of 7-8% per year that has already been in force for some time, in a context of declining inflation, that in 1999 should be around zero (Figure 2). Indeed, in 1996, consumer price inflation reached 9%, against a nominal

devaluation of 7%. Since consumer price inflation in the US over the same period was 2%, this corresponded to an undeclared form of *crawling peg*. Since then, however, consumer price inflation has fallen, to 4% in 1997 and 2% in 1998, at the same time as nominal devaluation remained at 7% in 1997, and rose slightly to 8% in 1998. *We expect that this policy of nominal rates of devaluation in excess of inflation will be maintained over coming years.* Taking as a basis the Wholesale Price Index, we reach similar conclusions.

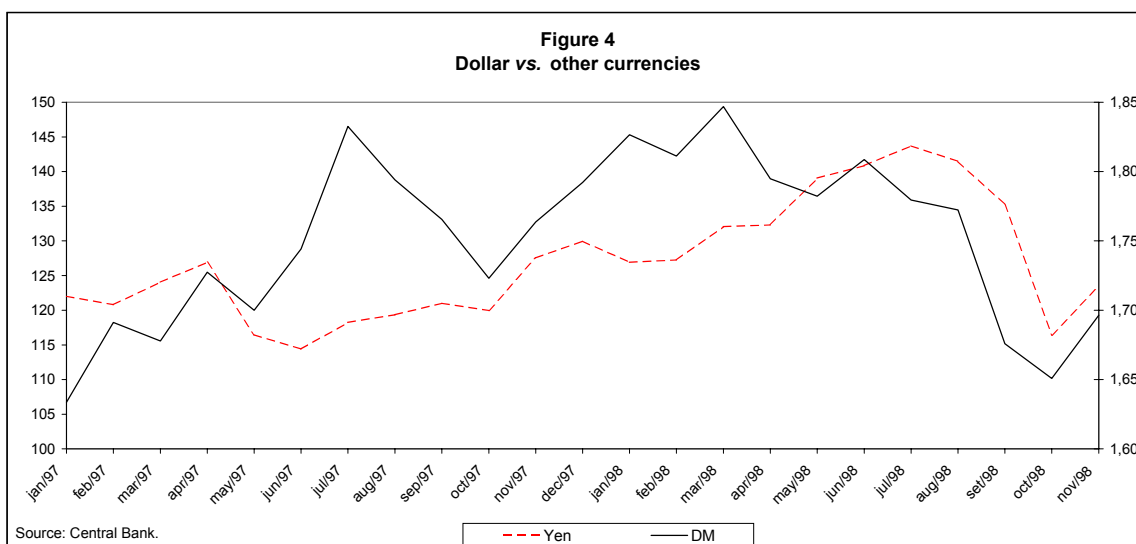


This policy has already resulted in an important devaluation over the course of 1998. Using the Wholesale Price Index as a deflator (Figure 3) we conclude that, at the end of this year, the real exchange rate had appreciated by a total of 13% since June 1994, the month in which the Real Plan was launched. It should be noted that: *a)* this figure is well below the figure of 25-30% that has been mentioned in foreign circles on several occasions; and *b)* if current policy is maintained, it is possible that the real exchange rate at the end of 2000 will have returned to the levels at which it stood when the Real Plan was launched.¹⁴ Using the Consumer Price Index as a deflator, in relation to which the appreciation of the first two years of the Real Plan was greater, the maintenance of the current *foreign exchange policy*, consisting of a *change* in the real exchange rate, will imply an accumulated real devaluation of around 30% relative to December 1996, considering the real devaluation of 13% that already occurred during 1997/98.

¹⁴ It is reasonable to assume that the nominal exchange rate will increase by 7-7.5% in 1999, and by 6-7% in 2000, against the backdrop of domestic inflation that remains close to international levels.



To the above must be added the recent devaluation of the Dollar relative to other strong currencies, that is improving the international competitiveness of Brazilian products evaluated against a *currency basket* (Figure 4). In the second quarter of 1998, the Dollar-Deutschmark and Dollar-Yen rates reached 1.87 and 147 respectively, while they currently stand at 1.66 and 123. In the case of the latter currency, the outlook is unclear. With regard to Dollar-Deutschmark parity, on the other hand, it is reasonable to assume the new European currency, the Euro, will tend, following its introduction, to be used as a reserve currency, and that this will cause it to appreciate, even if only moderately, providing an indirect gain in competitiveness to Brazil.



It should be noted, however, that we are not discussing an economy with a fixed real exchange rate that its government is committed to defending at all costs despite a hostile external situation, as was the case, for example, of Mexico in 1994. On the contrary, we have seen the recognition on the part of the

government from 1997 onwards, at first tacitly and later explicitly, that the real exchange rate must be altered, and that a specific policy must be adopted to achieve this. All the controversy surrounding exchange rate policy thus regards the *timing* of this process, with certain analysts proposing a discontinuous policy of sudden devaluation, and the government, supported by other analysts, seeking to implement a *gradual and controlled devaluation* in such a way as to reconcile the aim of adjusting the exchange rate with its general economic policy objective, described above, of maintaining the domestic inflation rate on a level similar to the international inflation rates.

4.3. Competition from Asian Exports

Shortly after the crisis in the Asian economies during the second half of 1997, analysts made two different kinds of predictions regarding the future evolution of real exchange rates for such countries. The first kind, which was optimistic with regard to Brazil's prospects, held that inflation would erode most of the real devaluation gains that had occurred in Asia, assuming that exchange rates remained relatively stable, in a similar fashion to the experience of Mexico, where three years after a nominal devaluation of over 100% between the end of 1994 and the end of 1995, the devaluation in real terms had been reduced to around 15%. The second sort of prediction, which if confirmed, would have had dramatic consequences for Brazil, was that the Asian devaluations on the scale observed, would lead to a shift in the system of relative prices that would have a lasting impact, since inflation would not follow the pattern observed in Mexico during 1995, of inflation that accelerated before being brought under control again.¹⁵

Both kinds of prediction have been shown to be at least partially wrong, however, even if they have both had a degree of predictive success. On the one hand, the predictions of the first group of analysts benefited from the fact that the devaluation in real terms was less than had initially been feared, while the second group assumed correctly that Asian inflation would not be allowed to escape from control even on a temporary basis, albeit with Indonesia proving the exception to the rule. On the other hand, both sets of predictions were wide of the mark, in so far as there was neither the increase in inflation predicted by the first group, nor the nominal devaluation on the scale predicted by the second.

This resulted in an effective real appreciation in exchange rates following an enormous initial devaluation, albeit because of a *nominal* appreciation in the exchange rate, rather than a sharp rise in inflation in the context of a constant nominal exchange rate. In this way, South Korean and Thai exchange rates, which at the end of 1996 had stood at 844 Won to the US Dollar and 26 Baht to the US Dollar respectively, reached almost 1,900 Won and almost 50 Baht less than a year later, before falling in nominal terms. At the end of 1998, exchange rates stood at around 1,240 Won in the case of South Korea, and at around 36

¹⁵ In Mexico, consumer price inflation was 7% during the period January-December 1994, and 52% during the same period of 1995.

Baht in the case of Thailand. The calculation of the real exchange rate must be made taking domestic consumer price inflation into consideration. Taking South Korea as a comparative example, consumer price inflation amounted to 4.5% in 1997, and 7.5% in 1998, with US inflation amounting to 1.7% and 1.6% over the same respective periods.

Taking into consideration projections of South Korean inflation by international investment banks that average 5.5% per year for the two-year period 1999/2000, and average US inflation of 1.5% over the same period, and assuming that the South Korean exchange rate stabilizes around current levels of 1,240 Won to the Dollar, South Korea's real exchange rate index [index of nominal exchange rate x index of foreign inflation/index of domestic inflation] would, at the end of 2000 (base: December 1996 = 100) stand at approximately:¹⁶

$$100 \times (1,240/844) \times \frac{1.017 \times 1.016 \times 1.015 \times 1.015}{1.045 \times 1.075 \times 1.055 \times 1.055} = 125$$

Adopting the same argument in the case of Brazil, given the nominal exchange rate at the end of 1996 of R\$/US\$ 1.04, and given the devaluations registered for 1997 and 1998, as well as the projected nominal devaluations of 7.5% in 1999 and 6% in the year 2000, the real exchange rate index for the end of the year 2000, with a base of December 1996 = 100, INPC inflation of 4.3% in 1997 and 2.4% in 1998, projected inflation of zero in 1999 and 1.5% in the year 2000, and the international inflation projections mentioned above, would be:

$$100 \times (1.377/1.039) \times \frac{1.017 \times 1.016 \times 1.015 \times 1.015}{1.043 \times 1.024 \times 1.000 \times 1.015} = 130$$

On the basis of the above assumptions, we may thus conclude that between the end of 1996, before the start of the Asian crisis, and the year 2000, when most of the Brazilian devaluation will already have occurred, the real exchange rate for the Brazilian Real against the US Dollar will have devalued by *more* than the South Korean Won.

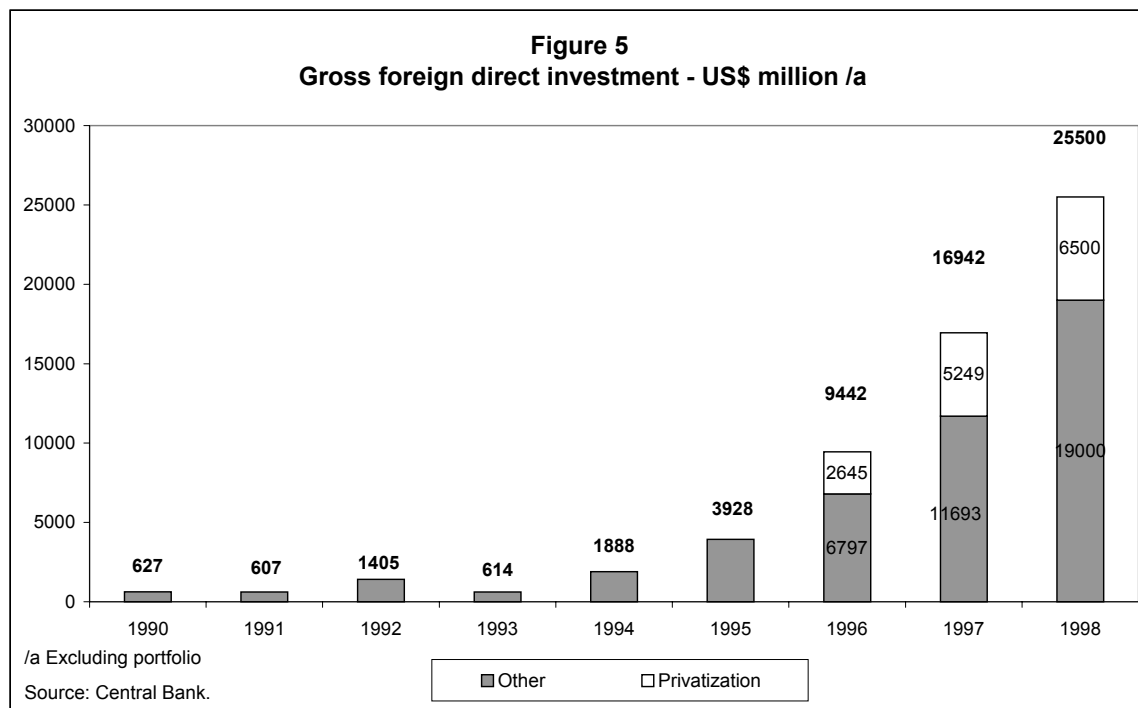
It is important to note, however, that the Real underwent a substantial appreciation against a basket of Asian currencies in 1997, due to the crisis in the latter area, but that this process should be fully reversed by the end of the year 2000, maintaining the trend already observed in 1998, that consisted of two factors: a) the real appreciation of Asian currencies vis-à-vis the US Dollar; and b) the gradual devaluation of the Real.

¹⁶ An increase in the index indicates a devaluation in real terms. If this calculation is repeated for the case of Thailand, the accumulated devaluation would be similar, assuming a stable exchange rate at around 36 Baht to the US Dollar, recorded inflation of 5.6% in 1997 and 8.5% in 1998, and prospective annual inflation of 6% for 1999 and 2000.

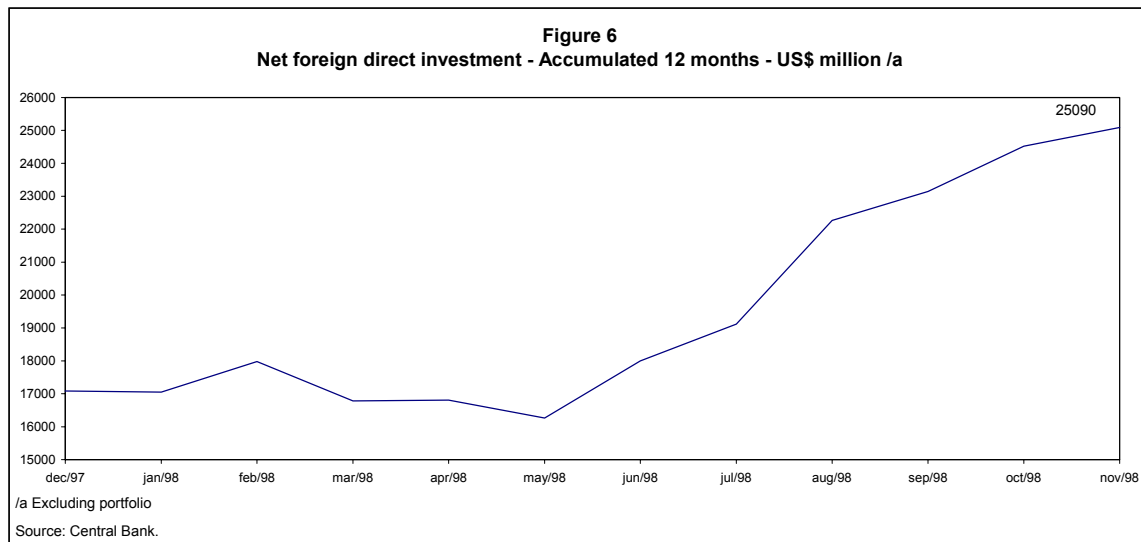
Until the Real devalues significantly on an accumulated basis, and while the Asian currencies remain heavily devalued, however, it is clear that Brazil will suffer from Asian competition in foreign markets. At the same time, from the year 2000 onwards, when the above process is completed, it is reasonable to assume that as the Brazilian economy begins to grow at a more pronounced pace, it will regain the competitive conditions relative to comparable Asian competitors that it enjoyed prior to the crisis in the latter economies, while all such countries will have undergone a significant real devaluation with respect to both the US Dollar and the Euro.

4.4. Maintenance of Long-Term Confidence

An important factor to note in analyzing the course of the Brazilian economy following the crisis in international financial markets is the distinction between the behavior of loan capital and of direct foreign investment. While Brazil suffered a significant loss of reserves, resulting from an outflow of foreign capital, most notably due to the repayment and retirement of loans that were not renewed, the inward flow of capital associated with investment decisions based on the country's longer-term prospects was maintained, reaching a record gross investment figure for 1998 (excluding portfolio flows) of around US\$ 25 billion (Figure 5). It may be observed that even without considering the funds linked to privatizations, the inflow of investment funds (excluding privatization) amounted to a significant US\$ 19 billion. This figure may be thought of as a benchmark, given that the level of investment should return to this figure once the privatization program has been completed.



It is even more important to emphasize that, even after the start of the crisis in August, the inflow of long-term investment funds remained positive, as may be seen from the fact that the cumulative 12-month flow continued to grow throughout the second half of the year (Figure 6).



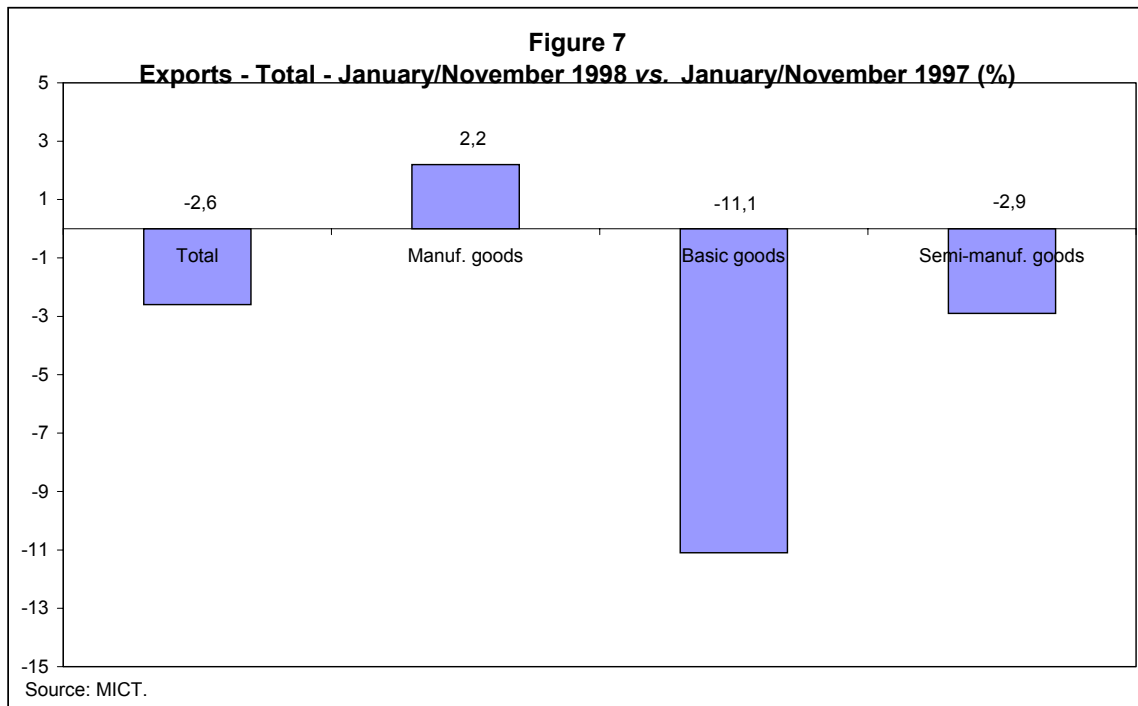
In addition to the above data, there is the prospect that, in 1999 and in the year 2000, Brazil still has important privatizations to carry out, making it possible to secure a significant volume of foreign funds as a way of “bridging the gap” represented by its foreign problems, while at the same time carrying out the gradual adjustment to exchange rate policy that is expected to allow a substantial reduction in the current account imbalance over the course of the next decade, once the opportunities for privatization have disappeared. It has been estimated that privatizations during the two-year period 1999/2000 will yield some US\$ 37 billion in revenues, split more or less equally between the two years. Of this figure, around US\$ 31 billion will result from federal privatizations and some US\$ 6 billion from privatizations at individual state level [Citibank (1998)]. It is natural to expect that foreign capital will play an important role in such operations.

4.5. Beyond the Short-Term: The Basis for Sustainable Growth

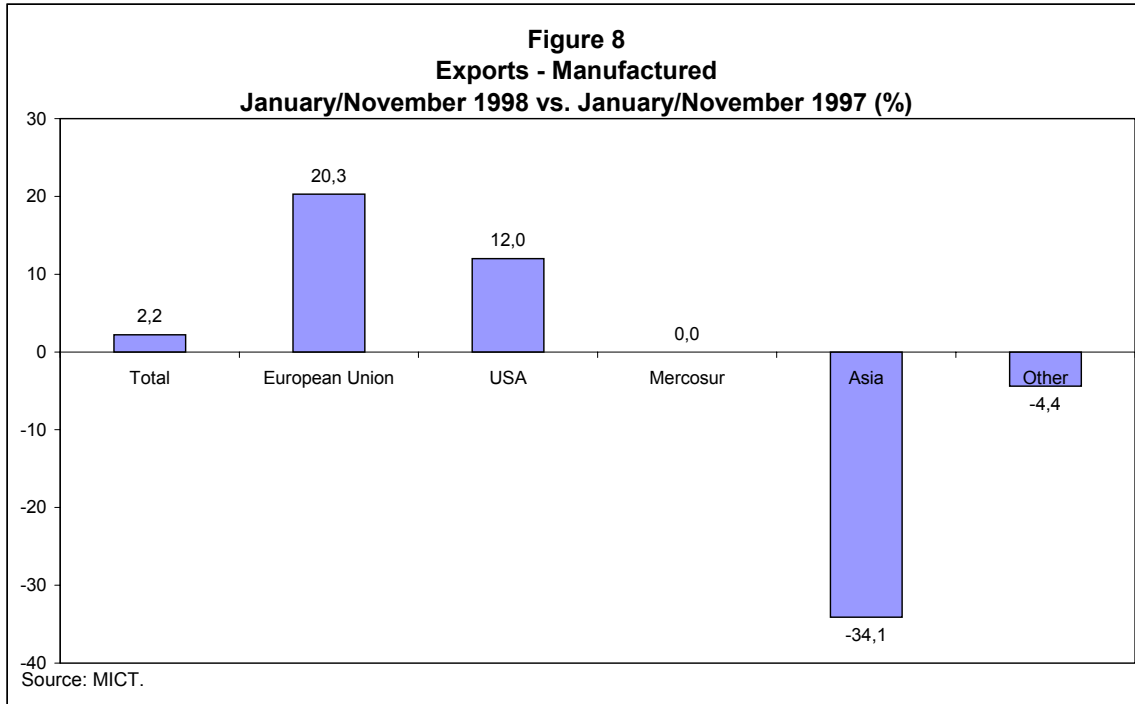
The Brazilian economy’s capacity for growth during the second term of president Cardoso’s administration and thereafter will be crucially dependent on two variables: the country’s export performance, and the evolution of the rate of investment ratio. Looking beyond problems of a short-term nature, the recent behavior of these variables inspires a certain degree of optimism with regard to the medium- and longer-term outlook.

Brazil’s export performance during 1998 was heavily affected by the combination of two factors: low prices and a collapse in demand from Asian countries. The average total price of exports fell strongly between 1997 and 1998, reflecting the fall in the average price of basic products. This reduction explains the

composition of export growth, and the contrast between the increase in exports of manufactured products and the fall in exports of basic products (Figure 7). At the same time, exports to Asia fell sharply. In particular, total exports to the group of four countries most affected by the crisis, South Korea, Malaysia, Thailand and Indonesia, fell by 43%. While these countries were not among Brazil's major trading partners, it is evident that a fall of such magnitude was bound to affect the overall level of exports.

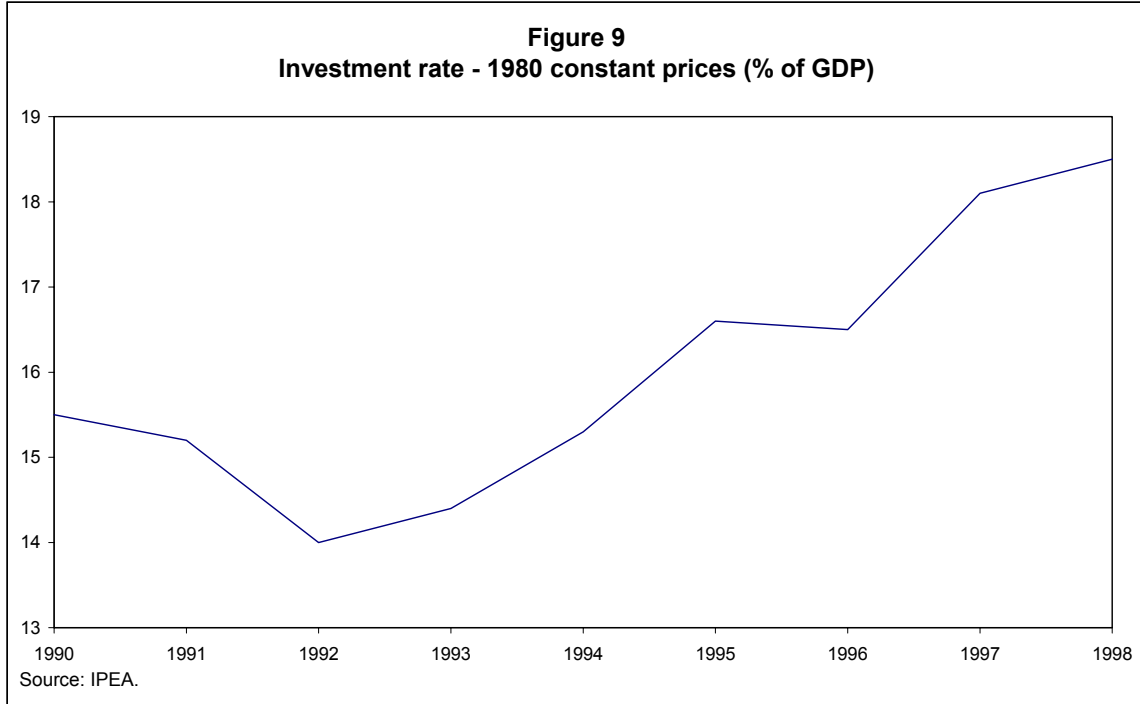


It is interesting to highlight how exports of manufactured goods break down (Figure 8). It may be noted that the increase in total sales of such products was pulled down by the 34% fall in exports of such goods to Asia, since exports of manufactures to the European Union and to the US increased by 20% and 12% respectively. The increase in sales of Brazilian products to such markets is a reflection not just of producers seeking alternative markets, but also of the devaluation of the Real. It is clear that in 1999, with ongoing stagnation in Asia, the *level* of exports to countries in the region will not be much different from 1998, but precisely for this reason, the *rate* of change is also likely to be around zero. If this turns out to be the case, and if Brazil maintains its growth trend in other OECD markets - except Japan -, aided by the ongoing devaluation of the Real, by the growth of these economies and by domestic stagnation, and remains unhampered by the counterweight of Asia, then it is reasonable to assume that total exports could grow around 5% in 1999.



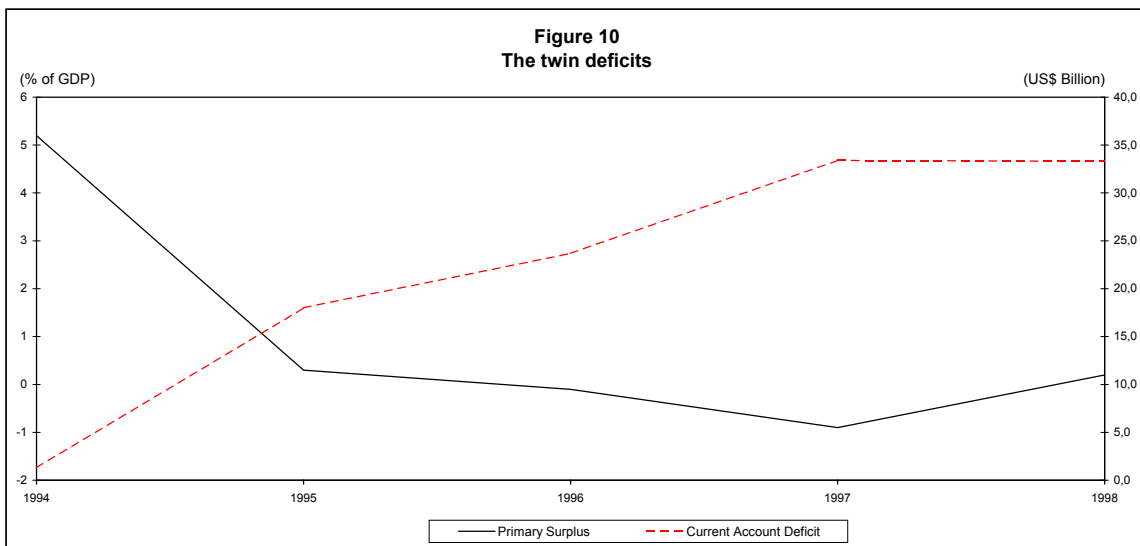
The investment, measured at 1980 prices, averaged 24% of GDP throughout the 1970s, falling over the course of the “lost decade” of the 1980s and early 1990s to a minimum of 14% of GDP in 1992. From then onwards, as the economy began to grow, investment grew faster than GDP, reaching 18% of GDP in 1998 (Figure 9). It is not expected that this rate will return to the levels of the 1970s, since economic growth rates were then around 7-8%, levels which are unrealistic for the foreseeable future. It nevertheless seems reasonable to adopt an economic policy with the objective of raising this figure to the intermediate level of 20-21% of GDP by 2002, at the end of the mandate of the current government. In this way, it may be expected that the resumption of economic growth after 1999, will be led, in particular, by investment, most notably in those sectors that have been or that are in the course of being privatized.

In order to evaluate Brazil’s medium- and long-term perspectives correctly, it is important to consider not only the above factors, but also the high probability that the Brazilian oil sector will experience a boom over the next few years, in part due to the increase in investments by Petrobrás, and in part due to new investments following the end of the monopoly in the sector. It is expected that production will rise from the current level of approximately 1 million barrels/day to almost double this figure around the middle of the first decade of the next century. This could reduce the annual cost of oil imports, which amounted to US\$ 6 billion in 1997 and more than US\$ 4 billion in 1998 to US\$ 2 billion in four or five years time, thereby helping to reduce the current account deficit.



5. Conclusion: 1999, a Turning Point?

The effort to contain the deterioration in both the current account deficit and the primary result of the public sector deficit began in earnest in 1998, and should be intensified in 1999 (Figure 10). With regard to the current account deficit, which has risen systematically since 1994, and which reached US\$ 33.4 billion in 1997, it is to be hoped that this has already occurred, and that the figure for 1998 was similar to that of the preceding year, with a figure of US\$ 26-27 billion projected for 1999.



The primary result has also deteriorated significantly since 1994, to the extent that the significant surplus recorded for that year had, by 1997, become a consolidated deficit for the whole of the public sector amounting to 1% of GDP. In 1998, the primary result is likely to have returned to a surplus of 0.1-0.2% of GDP, even if the final figure is not yet known, while the IMF agreement is projecting a substantial improvement for 1999.

The reduction in the foreign account imbalance is likely to be achieved through a combination of three elements: a) the gradual devaluation that has already been mentioned; b) the expected improvement in domestic oil production; and c) the initial moderation of economic growth, since the government is projecting an average increase in GDP over the three-year period from 1999/2001 of only 2% per year. These developments will not only lead to a fall in imports, but are also likely to occur when exports are increasing, and should thus allow the country to generate significant trade surpluses from the start of the next decade onwards, even if these are unlikely to return to 1994 levels. This will evidently aid in reducing the current account deficit.

As is known, a slowdown in economic growth has opposite effects on the external sector and fiscal results, since while the former benefits from the reduction in imports, the latter is affected by the negative effect on tax revenues. For this reason, the reduction in the PSBRs will remain dependent until 2001 on cuts in expenditure in 1999 and on the new taxes resulting from the measures adopted at the end of 1998, as well as on the existence of *once and for all* factors, such as revenues from concessions and the provisional tax on checks. Thereafter, on the other hand, it is to be hoped that the economy resumes its growth trend, causing such factors to diminish in importance. In addition, a scenario in which current revenues grow in line with the economy should permit a consistent fall in interest rates, without the fear that the disappearance of these temporary sources of revenue may lead to a major increase in the deficit.

On this basis, by the year 2000, the economy could show clear signs of: a) a reversion of the current account deficit; b) a reduction in the ratio of the PSBRs to GDP; and c) the stabilization of the public sector debt as a percentage of GDP. If this occurs, then Brazil will have succeeded in overcoming the worst phase of the adjustment, with a real exchange rate that has depreciated substantially relative to 1997, prior to the Asian crisis. It will then be a solid economy with stable prices, that is ready to begin a decade that could turn out to be highly prosperous.

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