

ECLAC

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN

Office in Brazil

BRAZIL IN THE 1990s: AN ECONOMY IN TRANSITION

Document prepared by Renato Baumann, Director of the ECLAC/Office in Brazil. The views and opinions expressed in this document are those of the author and do not necessarily reflect the official position of ECLAC.

10

11

12

13

BRAZIL IN THE 1990s: AN ECONOMY IN TRANSITION

Renato Baumann*

I – Introduction

Social sciences are not pure sciences. The analysis of social movements demands an identification of the period of time when the movements to be considered have taken place, so as to allow for the control of the influence from other, related phenomena. Such identification is often associated with calendar periods due to several reasons, among others the very availability of most data.

Analysing the Brazilian economy in the 1990s is, however, far more than a calendar coincidence. This has been an extremely rich period to study, and a number of aspects will remain as object for analyses for a long time yet.

To start with, the international scenario at the beginning of the decade was one of increasing movement of capital flows and technological transformation, but the difficulties associated to an unstable domestic macroeconomic environment would not allow the Brazilian economy to fully participate in neither of these new movements. Also, policy makers were constantly reminded of the success of other emerging economies elsewhere, and the road to achieve such bonanza seemed quite well paved from the viewpoint of several influential agents from abroad.

Domestically, mounting inflation after a number of failed stabilisation plans provided ground for varied tentatives to fight inflation. Furthermore, a new Constitution brought new fiscal and social features into an already complicated economic environment.

The second half of the decade was characterised, however, by a sharply different context. The achievement of price stabilisation coupled to relative openness to foreign trade has no precedent in the economic history of the country. At the microeconomic level, a number of impressive changes have also taken place, all of which have facilitated the access to international capital markets and led to a new pattern of growth.

This chapter aims at discussing these features, in the light of the adjustment process that took place during the present decade. A number of aspects correspond to what the literature of reforms in developing countries would have indicated. But not everything turned out actually as one would have predicted or preferred. It is argued that this might have been due to various

* UN/ECLAC and Universidade de Brasília. Opinions here are strictly personal and do not necessarily correspond to the actual position of these institutions.

factors, ranging from the design of the policies to the actual perception of the market signals by the economic agents.

The chapter has five sections. The next section presents a brief survey of the literature on reforms, in particular the suggestions regarding their timing and sequencing. This is followed by a rather lengthy account of the basic features of the Brazilian reforms in the 1990s. In the fourth section I discuss some of the outcomes which did not exactly correspond to expectations and try to identify the causes for it. The fifth section lists some lessons derived from the recent Brazilian experience.

II – The Need to Reform and the Basic Recipes

Latin American policy makers in general have been exposed during the seventies and eighties to a multiple set of pressures. Economic and social distortions and inefficiencies, coupled to external constraints aggravated by intense movements in the international market for commodities and by financial difficulties have consolidated the need to promote substantial reforms in these economies.

Individual countries in the region have experienced different approaches over time¹ but on the whole the design of such reforms had strong influence from an orthodox reading of the outcomes of the successful experiences of the emerging economies in Southeast Asia.

According to this view, reforming was to be an immediate task, because the sooner the adjustment process was undertaken the lower the costs involved. In the words of a World Bank authority, "adjustment postponed [is] pain compounded"².

Market-oriented policy reforms were recommended on the basis of four basic arguments³: a) economic liberalisation reduces static inefficiencies arising from resource misallocation and waste; b) economic liberalisation enhances learning; c) outward-oriented economies are better able to cope with adverse external shocks; d) market-based economic systems are less prone to wasteful rent-seeking activities.

Reforming should thus comprise fiscal rectitude, assure sustained free trade conditions and reduce to a minimum existing market price distortions. Restructuring economies should be provided financial assistance during the transition period, so as to reduce the adjustment costs associated with micro reforms: adjustment includes reforms of policies and institutions, on the belief that "these changes can improve resource allocation, increase economic

¹ As witnessed, for instance, by the Chilean, Argentine and Uruguayan opening processes in the late seventies and early eighties, as compared to the later trade reforms in Mexico, Bolivia and Brazil.

² Stern (1991), pg.3.

³ Rodrik (1993), pg 7.

efficiency, expand growth potential and increase resilience in response to future shocks"⁴.

Financing agencies and academic mainstream were seen as agreeing in that the measures typically called for at the beginning of the process comprised⁵ what became to be known as the Washington Consensus: fiscal discipline, redirection of public expenditure priorities towards health, education and infrastructure, tax reform (broadening the tax base and cutting marginal tax rates), providing competitive exchange rates, securing property rights, deregulation, trade liberalisation, privatization, elimination of barriers to foreign investment and financial liberalisation.

Such mapping of the ideal path to an undistorted system gives little guidance, however, on how to deal with crucial aspects such as⁶ minimizing the adjustment costs, coping with the implications of differential rates of adjustment between sectors, the appropriate macro-policy during the reforms (and more specifically the management of the exchange rate), and how to minimize the welfare consequences of leaving one sector controlled while freeing another from state intervention.

In an ideal world a reformer, say, of trade policies would not have to be concerned with these intermediate steps since an optimal policy would consist of an immediate jump to free trade, unless there exists specific market distortions⁷.

In practice, however, a correct designing of the reform process is essential not only for the sake of academic evaluations or even to assure the political support for the reforms. Credibility is an essential aspect to be considered⁸. Lack of credibility that a reform will last introduces distortions which may be self-fulfilling: the reversal of a reform may come about simply for the belief that it will have a short life.

A simple way to illustrate this is with a trade reform expected to be temporary. This might lead economic agents to perceive imported goods to be cheaper only temporarily, and hence incur debt above the level they would otherwise contract, just for reasons of intertemporal substitution in consumption. If economic agents have little past experience upon which to draw with regard to a more open environment, they have to infer from the experiences of other countries. If they are able to borrow against their perceived higher permanent income through an open capital account, present consumption will increase⁹. Current account imbalance stemming from such procedure may lead to renewed trade barriers, thus reversing the initial movement.

⁴ Thomas/Chibber/Dailami/de Melo (1991), pg 12.

⁵ According to Williamson (1990).

⁶ Conley/Maloney (1995).

⁷ Mussa (1986).

⁸ Calvo (1989).

⁹ Conley/Maloney (1995).

The need for a recommended path has given birth to a literature on policy reforms dealing with the timing and sequencing of reforms, as well as the importance of eliminating uncertainty about government intentions.

Most of the debate has concentrated on the question of whether trade liberalisation should precede or follow capital-account liberalisation¹⁰. Experience has shown, however, that sharp macroeconomic disequilibrium at the beginning of the reform period might affect the outcome. An additional, more specific discussion relates therefore such sequencing to an initial economic environment of high inflation, and deals with the synchronisation between the process of price stabilisation and the reforms¹¹.

Another, related aspect of the discussion about reforms¹² is the relation between reforming the domestic financial sector and liberalising the Capital Account of the Balance of Payments. In inflationary countries fiscal deficit and intervention in the domestic financial market often lead to artificially low domestic interest rates. Controls imposed on international capital should therefore only be relaxed after the domestic financial market has been reformed, the fiscal deficit is under tight control and real interest rates have been raised, so as to avoid large destabilising capital flows.

If the opening of the capital account takes place when domestic interest rates are maintained below their equilibrium level, there will be massive outflow of resources. Alternatively, with fiscal deficit under control a reformed domestic financial market will operate at equilibrium interest rates. Reducing constraints on capital movements will stimulate arbitrage movements leading to an inflow of foreign capital.

There seems to be hence little dispute as to the sequencing between the reform of the domestic financial market and the liberalisation of capital movements: impediments to capital movements should not be relaxed before the domestic financial sector is liberalised¹³.

Several authors have advocated also that the Capital Account liberalisation should take place only after trade and other sector distortions have been dismantled¹⁴. The relaxation of capital controls bringing about substantial inflows of capital will induce an increase in the level of aggregate expenditure both on tradable and non-tradable goods, generating real exchange rate appreciation (therefore less protection to the producers of tradable goods), hence precluding or even frustrating the liberalisation of the external trade sector¹⁵.

¹⁰ In which moment should reforms include also other markets, such as the labour market (an inevitable step, if trade opening is to remain), does not come out so clearly from the literature.

¹¹ A matter of great interest for Brazil in the early nineties.

¹² Largely influenced by the Chilean experience in the early eighties.

¹³ Edwards/Edwards (1987) and Edwards (1990).

¹⁴ McKinnon (1982)

¹⁵ An alternative way of presenting this argument follows from the pace of adjustment in the goods and the financial markets: since the former takes more time to clear than the latter, a

While the opening of the Capital Account often generates a real appreciation of the exchange rate, it follows both from theory as well as from experience¹⁶ in various trade policy reform episodes that a successful trade liberalisation generally requires real devaluation of the domestic currency.

In principle therefore, trade reform should come before the dismantling of controls over foreign capital flows. But this conclusion still leaves ground to other two questions.

First, it is not quite clear from this debate whether a gradual reform is more desirable than an abrupt one. What is at stake is the actual outcome and the sustainability of the process. As Edwards (1990) puts it, it is possible that gradualism has characteristics that may either enhance or compromise the credibility of the reforms, depending on the actual conditions in each country: by reducing unemployment and allowing for a fiscal equilibrium, a gradual reform will tend to be more credible; but at the same time a slow reform might allow the groups negatively affected by the new policies to organise and lobby against those policies.

A second aspect is the relation between reforms and disinflation. Economic theory provides little guidance in this regard. But experience would suggest¹⁷ that in economies with sharp macroeconomic problems reforms should be initiated only when sufficient progress has been made to reduce such imbalances: instability reduces the benefits of reforms aimed at improving the allocation of resources via changes in relative prices.

Insofar as trade liberalisation – the first step in the proposed reform scheme – is concerned there are three arguments to postponing it until inflation has been controlled¹⁸. First, the above mentioned relative-price variability affecting the transmission of efficiency benefits. Second, trade liberalisation might negatively affect fiscal revenues, if the reduction or elimination of taxes on trade surpasses tax revenue accruing from the improved trade activity. Third, liberalisation requires a compensating exchange rate devaluation to protect the Current Account, at the same time that domestic price stabilisation would benefit from cheaper imports favoured by an appreciated exchange rate.

It is the exchange rate argument which is the most relevant for some detailed consideration here. From the theoretical viewpoint, this is the one which might impose the most serious constraint on trade liberalisation¹⁹. Furthermore, for the present purposes it is directly related to understanding the Brazilian experience since 1994.

homogeneous reform would call for the goods markets to be liberalized before financial markets (J.Frenkel, cited in Edwards (1990)).

¹⁶ Chomski/Michaley/Papageorgiou (1986). Real devaluation of the domestic currency is considered a necessary condition for successful trade liberalization.

¹⁷ Corbo/Fischer (1992).

¹⁸ Rodrik (1993b).

¹⁹ See the discussion in Rodrik (1993b).

The debate about reforming in a context of stabilisation policies has focused on whether reforms can assist the disinflation process: trade liberalisation may help disinflation by forcing convergence between domestic and external price variation in tradable goods; however, whereas trade liberalisation calls for a compensating exchange rate depreciation (in view of the downward rigidity of wages) domestic price stabilisation requires, on the contrary, that devaluation of the exchange rate be avoided. The exchange rate can thus be used either as an instrument to achieve a real target (in which case it follows the price and wage setting process) or as a nominal anchor for the domestic price level (in which case it leads that process).

Furthermore, if coupled to financial liberalisation²⁰ the real appreciation of the exchange rate will: a) tend to compromise the credibility of the liberalisation episode and b) after a initial overshooting of capital inflow expectations of a real depreciation will lead to higher real interest rates, at a time when the real side is going through the costly adjustment that follows the liberalisation of trade restrictions²¹.

This exchange rate dilemma may be illusory, however, if exchange rate overvaluation is considered as a price to be paid to assure the credibility of the process²². If the inflationary process has a strong inertia linked to the indexation or accommodation of key nominal variables²³ to the lagged variations in the price level, a credible commitment should not only take care of inflation, but also remove the nominal rigidities that require the use of devaluation for competitiveness purposes.

From this perspective an overvaluation of the exchange rate may be viewed as not being an independent source of risk. To a public which has seen many disinflation plans fail for the lack of political will an ambitious package that attacks all inflationary sources may signal the presence of a government with clear decisions and well defined policies. This also makes a reversal less likely in case of temporary setbacks. Hence²⁴ the use of the exchange rate as a nominal anchor may not be necessarily in conflict with trade liberalisation, since if such anchor works nominal wage rigidity will eventually disappear, improving the likeliness of sustained competitiveness.

Two last observations regarding reforms have to do with the facts that a) open policies generate their own constituencies²⁵ - as new profit opportunities will appear, the entrepreneurs that benefit from the post-reform scenario will fight against any attempted reversal; b) a reformed system does not necessarily mean the elimination of rent-seeking activities – as long as governments implement policies, individuals will try to obtain benefits for themselves²⁶.

²⁰ The elimination of inflationary gains resulting from a successful stabilization process may lead the financial sector to look for other sources of financing.

²¹ Edwards/Edwards (1987).

²² Rodrik (1993b).

²³ Wages, monetary aggregates, the exchange rate.

²⁴ Rodrik (1993b).

²⁵ Rodrik (1992).

²⁶ Rodrik (1993a).

III – The Brazilian Economy in the 1990s: An Overview

The 1990s are considered as 'the decade of reforms' in Brazil. Although some tentative action took place in the late eighties – as is the case, for instance, with foreign trade liberalisation and early privatisation – clearly the most significant steps were taken after 1990.

This decade has been a turning point in the economic history of the country. Having been in the previous four decades a closed economy with large presence of the State as producer of goods and services and after a long record of indexed high inflation, by the end of the nineties Brazil has become an economy rather open to trade of goods and capital, with the simultaneous reduction of the role of the State as a direct producer.

Furthermore, the economy has also achieved unprecedented price stabilisation that has lasted for five years now: consumer price index increased a record 2489% in 1993, but was gradually reduced to single digit figures since 1996, having varied only 2.6% in 1998.

The reforms and their effects cannot be understood without taking into consideration the massive impact of such price stabilisation: a) it provided a 'wealth effect' that affected both consumers and producers, b) the stable macroeconomic scenario created a political environment favourable to reforms and c) induced confidence on domestic and foreign investors, at the same time that d) it eliminated the impressive inflationary gains accruing to the government and the banking sector, with important consequences for monetary and fiscal policies, as well as for the design of new, sharp regulations for the financial sector as a whole.

The literature on policy reforms often adopts a taxonomic approach, identifying several levels of reforms. According to this view, Brazil is about to complete its first generation reforms, starting with trade policy reform and the privatisation of State firms in the late 1980s, but intensifying the whole process since the early 1990s. It has also taken several steps towards second generation reforms, such as social security reform, administrative reform of the public sector, and tax policy reform.

Other policy changes have taken place in the same period with important consequences for the economy. Social programs were significantly re-designed to cope with new universal rights assured by the 1988 Constitution, to circumvent fiscal difficulties and to redistribute the burden of service provision between the federal government and local states and municipalities.

In the social area, as well as in other areas – such as science and technology – there has been an increasing (although insufficient) involvement of the private sector in the financing of several activities. Recent fiscal results and the forecasts for the coming years would suggest that this is a characteristic which might become more intense in the future.

This is not to say that reforms went necessarily in the correct direction, that they were well implemented and even less that they are complete by now. But there is no denying of how substantially the whole productive environment has changed in recent years, due to these reforms.

Chart 1 – BRAZIL: ONE DECADE OF REFORMS

	<u>1988</u> and <u>before</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Trade Reform	*	*	*	*	*	*	*	*			
Opening To External Financial Capital				*			*	*			
Privatisation	*		*				*	*		*	
Regulation Of the Financial Sector								*	*	*	*
Social Security Reform									*	*	*
Administrative Reform											*
Reform of Social Programs:											
.Education								*	*	*	*
.Health								*	*	*	*

Note: Asterisks indicate the approximate date of the main measures regulating each reform, not the moment of highest intensity of changes. This is important to keep in mind, for instance, in the case of privatisation, far more intense in 1998 in terms of the value actually transacted than at any time before.

One might ask why was there such concentration of reforms in this particular period of time. The answer has to do with the increasing perception by domestic economic agents – government officials, entrepreneurs and academic analysts – of the need to change. The international economic environment is certainly also part of the answer. The conjunction of the final stages of multilateral negotiations, renewed access to financing by other Latin

American countries and fiscal policies elsewhere²⁷ has acted as an additional stimulus to reformers.

Reforming (privatisation and social security reforms in particular) required important changes to be made to the Constitution. It demanded therefore political will and power that could only be achieved on the basis of the already mentioned consensus among economic agents.

Chart 1 shows the sequencing of the major reforms. The process started with trade policy reform and in the early 1990s some sporadic tentative movement to privatise public assets, followed by the opening of the capital account of the Balance of Payments. Second generation reforms begun only in the second half of the decade with social security and administrative reforms, as well as the regulation of the financial sector and a series of changes in a number of social programs, comprising education, health and poverty alleviation.

Trade liberalisation started in 1987, with the first change in thirty years of the nominal tariff structure, and a phasing down of tariff rates accelerating since 1990²⁸. The average simple (non- weighted) nominal tariff rate was as follows:

1988-1990:	33.4%
1991-1993:	17.8%
1994-1996:	12.9%
1997-1998:	13.9%

There were two moments when the process of tariff reduction was accelerated – in 1990 and again in late 1994. In both cases one of the major arguments for doing so was to provoke a shock of competitiveness on domestic producers, breaking down monopolistic positions and using trade policy as a complementary tool for the price stabilisation process²⁹. Trade reform in 1990 was broadened so as to comprise also the elimination of non-tariff barriers and a number of incentives to export, as well as a significant reform of the institutional framework dealing with foreign trade policy. The 1994 reform led to a partial anticipation³⁰ of the Mercosur's Common External Tariff, which would otherwise enter operation in January 1995.

The analysis of the impact of trade reform on the trade balance is therefore not straightforward, because a) given the peculiarities of the large domestic market that had been closed for so many years, it took some time until imports reached a significant value; b) export growth was the outcome of two simultaneous processes, the multilateral tariff reduction and the regional

²⁷ Taxes and interest rate differentials were a major stimulus to international financial arbitrage movements.

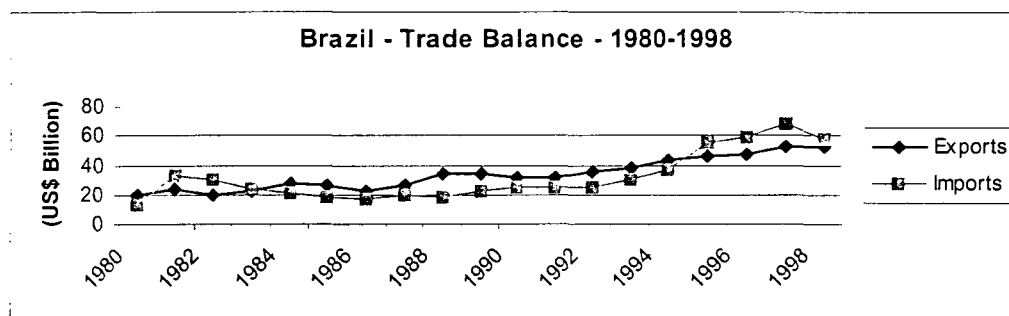
²⁸ A full account of the changes in trade policy in the nineties would have to consider also that for the first time in its history Brazil was committed to a regional integration process, with some important additional consequences.

²⁹ Some criticism remain with regard to the way these changes actually took place. See Baumann et alli (1997) for a detailed account of tariff reforms in 1994-96.

³⁰ To September, 1994.

preferences within Mercosur; c) price stabilisation after 1994 provoked a 'wealth effect', which affected domestic demand for imported goods; d) the exchange rate policy maintained throughout the period a good deal of overvaluation, affecting foreign trade.

Chart 2



With those preliminary remarks, suffice it to notice that trade surpluses which averaged US\$ 13 billion in 1992-1994 turned into average trade deficits of US\$ 6 billion in 1995-1998³¹. Import coefficient³² went up from 5.5% in 1990-93 to 7.2% in 1995-97 (Chart 2). The most intensely demanded imported items were raw materials and intermediate products, capital goods and automobiles. The importance of this import structure for the domestic investment cycle and for some productive sectors will be discussed later on.

Trade reform was significant and did help to i) increase the import component of domestic production³³, which ii) foster labour productivity – Bonelli (1998) estimates that labour productivity in the manufacturing sector has increased at an annual rate of 8.7% in 1991-97, as compared to 0.3% on average in 1981-89 and to 5.6% in the early seventies – and iii) increase consumer surplus (total imports of consumer goods increased from US\$ 2.6 billion in 1990 to US\$ 11 billion in 1998), but its impact on exports was surpassed by the overvaluation of the exchange rate³⁴ and the increase in (mostly manufacturing) wages³⁵.

³¹ Despite of the continued export expansion – 6% yearly growth on average in 1994-98 – and the improvement of the terms of trade (almost 20% between 1991 and 1995).

³² Total imports/GDP (%).

³³ Data from IBGE indicate that in 1990 only 11% of gross fixed capital formation in machinery and equipment corresponded to imported goods. In 1997 that percentage reached 41% (Sáinz/Calcagno (1999)).

³⁴ Exchange rate policy during the 1990s was rather varied. Starting from an initial position of letting the market determine the equilibrium rate (as an additional tool for breaking a long-standing indexation process) the government was soon led to adopt a band system that experienced some changes over time. In January 1999 external pressure based on the accumulated overvaluation led to new freely-floating system.

³⁵ A Bilateral Real-USDollar index deflated by wholesale price indexes based in mid-1994 would show overvaluation from July, 1994 to March, 1996, reaching a maximum of 17 percentage points by February 1995. Bonelli/Fonseca (1998) present some qualification to this argument: while labour competitiveness increased 62% in 1990-96, the average wage in US dollars increased 84%, which means that productivity gains were surpassed by labour

The early 1990s have witnessed also a major concern of policy makers in creating the conditions for the Brazilian economy to take advantage of the then increasing facilities in the access to international capital markets.

Brazil had since the 1950s been among the developing countries with highest participation of foreign capital in its productive structure³⁶. Until the end of the 1970s it was one of the greatest absorbers of foreign investment. That has changed during the crisis of the eighties, and there was a widespread perception that the economy missed the opportunities created by financial globalisation, more intense during that decade than in any other period³⁷.

This led to a number of specific policy measures creating favourable conditions to attract portfolio investment, starting in 1991. As a result, portfolio investment flows - less than US\$ 800 million until 1992 - already in 1993 came close to US\$ 7 billion. The capital account of the Balance of Payments changed the systematic deficits experienced in 1985-91³⁸ into a surplus of US\$ 25 billion in 1992.

It is worth noticing that this was a period of rather limited economic activity: GDP growth rates in 1991 and 1992 were respectively 1% and -0.3%, reaching 4.5% in 1993. The inflow of resources was thus largely the outcome of changes in the domestic legislation³⁹, and of the relatively low prices of stocks of Brazilian companies, after several years of inflation and low growth.

Recovery of the domestic economic activity⁴⁰, coupled to the opportunities created by the privatisation process soon led foreign direct investment to surpass portfolio capital inflows. Yearly flows of about US\$ 900 million in 1990-93 went up to US\$ 2.2 billion in 1994, US\$ 3.3 billion in 1995, and then boomed to unprecedented US\$ 9.6 billion in 1996, US\$ 17 billion in 1997 and US\$ 26 billion in 1998.

This massive inflow of foreign capital helped finance most of the recurrent and increasing Current Account deficits: from less than 1% of GDP in 1993 and 1994 it rose steadily, reaching close to 4.5% of GDP in 1997.

costs. In other words, the reduction in competitiveness was not due only nor predominantly to exchange rate overvaluation: industrial wages deflated by wholesale price index increased 76% in that period, compared to a 5% appreciation of the Real against the Dollar.

³⁶ It has been estimated (Chudnovsky/Lopez (1997)) that in 1995 92% of total sales by the automobile industry, 59% of the pharmaceutical industry, 56% of the sales of electrical appliances and 44% of beverages and tobacco in Brazil were associated to foreign-owned firms.

³⁷ Brazil's share of total world foreign direct investment was as follows: 1970-75 5.1%; 1976-80 6.3%; 1981-85 4.4%; 1986-90 1.2%; 1991-95 1.3%; 1996 2.7%, according to UNCTAD, *World Investment Report*, several issues.

³⁸ Thanks to the amortisations of the external debt.

³⁹ As well as international liquidity.

⁴⁰ GDP growth rates went from -0.3% in 1992 to an average 4.5% in the next four years.

The new favourable conditions granted to foreign investors coupled to the favourable international environment led to early expectations of massive participation of foreigners in the process of privatisation of state-owned enterprises. As a matter of fact, this was one of the major political obstacles to the program in its early moments, but actual results proved those fears to be excessive, since until as late as 1995 the participation of foreign investors in the National Privatisation Program mounted to less than 1% of total revenues⁴¹.

Privatisation efforts started in the early 1980s⁴², but it was only in the mid-1990s that the process became really significant. In 1991-98 total revenue accruing from the privatisation program totalled US\$ 58 billion (for federal government companies), plus US\$ 29 billion revenue from local state firms. This involved a total of US\$ 70 billion worth of assets sold plus US\$ 17 billion of transferred debt (see Table 1).

In 1991-94, a relatively small number (32) of firms have been privatised, providing a total revenue of US\$ 8.6 billion. But this was the phase when privatisation in the manufacturing sector was completed, with the selling of all relevant state-owned enterprises: firms in the steel, petrochemical and fertiliser sectors corresponded to over 90% of the activities of the State as entrepreneur. One peculiar aspect in this phase was that one-third of the revenue corresponded to federal bonds⁴³.

The total amount of resources – over US\$ 87 billion, in seven years⁴⁴ - makes this one of the biggest privatisation processes in the world, which will certainly have significant impact on the productive sector. The whole process had a double-sided logic: firms were sold to improve overall efficiency, but in several cases there were strong fiscal reasons⁴⁵.

The successful anti-inflationary plan and the privatisation of state-owned enterprises have however failed to produce the positive effects on fiscal accounts that other countries have experienced. On one hand, fiscal revenues were indexed before stabilisation⁴⁶. On the other hand, some expenditures have increased after stabilisation, such as wages in the public sector⁴⁷ and

⁴¹ According to Giambiagi/Pinheiro (1998)).

⁴² In 1979 the government created the Special Secretariat for the Control of State Enterprises (SEST), with a mandate to curtail state enterprises. It was not until 1981 that the first "Special Privatization Commission" was created (Pinheiro/Giambiagi (1998)).

⁴³ For a detailed account of the whole process of privatisation in Brazil see Pinheiro (1996)

⁴⁴ And with a number of significant firms still to be sold, in the energy and telecommunications sectors.

⁴⁵ For instance, privatisation at the state level was important for its more pronounced fiscal impact: while federal-owned firms showed a fiscal surplus equal to 0.1% of GDP on average in 1995/98, local state firms recorded a deficit of 0.5% of GDP in the same period. See Pinheiro/Giambiagi (1998).

⁴⁶ The 'Olivera-Tanzi effect' associated with the end of inflationary processes was small: in the inflationary years this effect was actually positive, given that indexed revenues coupled to delays in payments granted extra gains to the government.

⁴⁷ Wage policy in the public sector in 1995 (with wages being adjusted in accordance to previous inflation) is estimated to have added some 15-20% to the wage bill. Furthermore, the sharp increase of minimum wage in that same year also affected social security expenditures.

expenditures with social security, reform of the health sector and the adjustment of the financial sector.

Table 1 – Brazil: Privatisation Program – 1991-1998

(US\$ millions)

Sector	Number of Firms	Assets Sold	Transferred Debt	Total
Steel	8	5562	2625	8187
Petrochemicals	27	2698	1003	3701
Electric Power	3	3907	1670	5577
Railways	6	1697	---	1697
Mining	2	3305	3559	6864
Telecommunications	21	26970	2125	29095
Other	14	2442	344	2786
Federal Firms	81	46581	11326	57907
State Firms	26	23724	5311	29035
Total	107	70305*	16637	86942*

Source: A.Pinheiro, F.Giambiagi (1998), and www.bndes.gov.br

(*) includes sales of minority participations

As a consequence, fiscal balance deteriorated from a surplus of 1.4% of GDP in 1994 to a deficit of about 8% of GDP in 1998. Nominal interest rates needed to finance such deficit⁴⁸ have as a result remained at very high levels⁴⁹, often surpassing 3% per month, with monthly inflation rates around 0.3% (and even negative, in several months in 1997 and 1998).

The end of inflationary transfers to the banking sector⁵⁰ that followed price stabilisation led monetary authorities to create new mechanisms to avoid a systemic crisis in the financial sector. The rapid fall in inflation rate allowed for a rapid demand for money: the broadest monetary concept (M4) was by 1998 twice as high (in real terms) as in 1994. Also, credit to the private sector had increased fourfold in those four years.

These two items taken together are estimated to have added some 2% of GDP to total government expenditure (Baumann/Mussi (1999)).

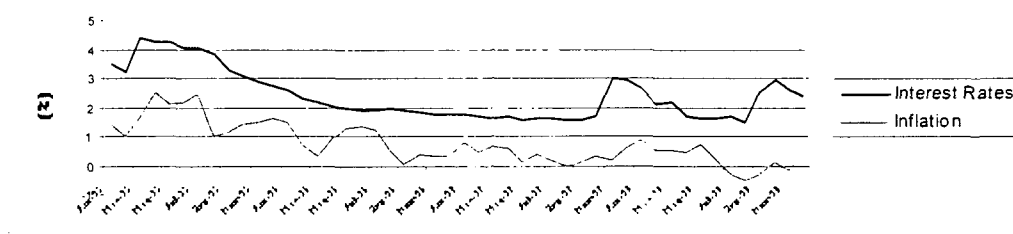
⁴⁸ As well as neutralise the monetary impact of the inflow of foreign resources.

⁴⁹ And increased sharply even further as a response to external shocks in 1995, 1997 and 1998.

⁵⁰ Transfers which accrued from the fall in the real value of deposits. It is estimated that those transfers corresponded to 4% of GDP in 1990-93, having disappeared since 1995.

Chart 3

Brazil - Monthly Nominal Interest Rates and Inflation (%)
1995-1998



This increase in credit comprises however both normal financing and a significant amount of resources used for adjusting the banking sector. The elimination of inflationary gains coupled to the sharp increase in interest rates (Chart 3) since March, 1995⁵¹ has brought enormous difficulties to several private and public banks, making the restructuration of the banking sector a necessary step⁵².

Monetary authorities had to intervene in several institutions, and a number of instruments have been devised. The most important policy tools have been credit programs to finance troubled institutions, both at federal and local state levels, coupled to an induced re-designing of the sector as a whole, via the fusion and selling of private and public banks with liquidity problems⁵³. This led to the elimination of most of the financial institutions belonging to local states governments. As an outcome of this process the banking system was able to face the 1997-98 external shocks with a 35% credits/total assets coefficient and a 13% capital/reserves ratio⁵⁴.

Macroeconomic adjustment had spillover effects also on social expenditure. At the beginning of the decade social policies were characteristically financed via monetary transfers. The huge numbers of potential clients faced a system strongly dependent on contributions⁵⁵, with multiple organisms and service networks and a strong concentration (2/3) of resources in the federal government, all of which led to mistargeting social programs. Furthermore, the multiplicity of social funds and their link with specific expenditure lines made resources for social expenditure highly sensitive to the business cycle⁵⁶.

⁵¹ Monthly average nominal rates for overnight operations went up from 3.2% in February to 4.4% in March, 1995.

⁵² The proportion of non-performing operations increased from less than 9% of total loans to almost 14% by the end of 1995 (Baumann/Mussi (1999)).

⁵³ A total of 42 banks (out of a total of 271) were affected, from July 1994 to December 1997.

⁵⁴ Higher than the Basle Committee recommended 8% ratio.

⁵⁵ Fixed percentages of wages and profits, as well as other quasi-fiscal sources of revenue.

⁵⁶ Draibe (1999).

The 1988 Constitution reduced the links between contributions and the system financing⁵⁷, made access to social services a universal right and established minimum levels for social benefits. The most radical change has taken place in the health area, with the creation of the Unified Health System, comprising both health services and social security.

In the early 1990s there was ironically intense legislative activity to regulate the new Constitutional determinations, in parallel with sharp reduction of social expenditures⁵⁸ as well as of the institutional apparatus for the provision of social services. By the mid-1990s a new strategy for social development was adopted, taking into account the right to universal access to basic social services, and comprising employment and income programs for generating new opportunities, with priority given to universal programs⁵⁹.

Since 1994, and despite the fiscal difficulties faced by local States and municipalities, they have been increasingly absorbing responsibilities in the financing of social programs, thus reducing the amount of resources contributed by the central government⁶⁰. Table 2 illustrates the distribution of social expenditure by administrative levels and percentage of GDP.

According to figures in Table 2 in 1995 the federal government was still responsible for most of the expenditure in 8 out of 14 social programs. In 1995 social expenditure by federal, state and municipal governments together corresponded to 21% of GDP, 85% of which on education, health, social security, and benefits to public servants.

Price stabilisation and political will have allowed for better focusing and higher selectivity of programs, new expenditure procedures, and clearer technical criteria for the allocation of resources. Social programs concentrate on two lines of action – investment in human resources and social assistance and programs to fight poverty.

Education has always been a bottleneck in Brazil's development process. The very dimensions of the country, poor quality of educational services, inadequate curricula in comparison to market demands, strong distortions in financing and expenditures⁶¹ are all long standing characteristics of the

⁵⁷ Although financing remain still very dependent (58% in 1996) upon such contributions.

⁵⁸ Social expenditure by the federal government fell from 11.4% of GDP in 1990 to 9.7% in 1992, a recessive period. Individual areas were affected in different manners: while federal expenditures in the health sector, food and sewage and water supply were in 1993 between 50 and 60% of their corresponding value in 1989, expenditure with social security had actually doubled in the same period (Draibe (1999)).

⁵⁹ The social expenditure/GDP ratio increased some 4% between 1990-91 and 1996-97 (coming close to 20%). In the same period the share of social expenditure on total public expenditure remained approximately the same (59%) (CEPAL (1999)).

⁶⁰ This has been made possible by the higher transfer of resources from the federal government to states and municipalities, as well as by the improvement of their fiscal revenue: in 1980 states absorbed 25% and municipalities 9.6% of total revenue; in 1991 those shares had become 27% and 16%, respectively (Draibe (1999)).

⁶¹ As an illustration, public educational expenditure per capita is estimated as US\$ 223. But that reflects US\$ 870 per student at the basic level and US\$14,303 per university student. (Figures refer to 1995; see Draibe (1999)).

educational system. A major goal for reform in education is the decentralisation of expenditures, unevenly distributed among the three administrative levels of government.

Table 2 – Brazil: Composition (%) of Social Public Expenditure,
By Government Level - 1995

Programs	Federal	States	Municipalities	Total Social Expenditure/ GDP (%)
Social Security	99	1	0	5.4
Benefits to Public Servants	57	37	6	4.7
Education	25	47	28	4.3
Health	63	21	16	3.4
Housing	4	14	82	1.1
Employment	98	2	0	0.5
Social Assistance	34	40	26	0.4
Urban Transportation	18	15	67	0.4
Sewage & Water Supply	24	21	56	0.2
Agrarian Organisation	95	5	0	0.2
Nutrition	96	1	3	0.1
Science & Technology	100	0	0	0.1
Environment	16	52	32	0.1
Human Resources Qualification	100	0	0	..

Source: Draibe (1999); rows might not equal 100 due to rounding

Health is one of the sectors most affected by the 1988 Constitution. The right to health having become a universal feature imposed new challenges to an already troubled area. Financing sources are varied, comprising contribution out of wages and profits, specific taxes and a number of other, varied sources. Reform in the health sector concentrates on the re-designing of sources of financing⁶² and on increasingly focusing services on preventive health actions. The share of municipalities in total expenditure in the health sector increased by more than 50% between 1990 and 1995 (although in 1995 some 60% still corresponded to the federal government)⁶³.

The need for reforming the social security system became clear in the late 1980s, provoked by a number of determining factors: until then the system incorporated contributors at rates that surpassed the growth of beneficiaries and even the growth of the labour force, there has been a significant demographic change in the population, and the 1988 Constitution incorporated rural workers into the system⁶⁴. The number of new rural retirees

⁶² The recent tax on cheques is the most well-known example.

⁶³ It is estimated that the number of persons covered by private health plans has increased fourfold in ten years, reaching 45 million people in 1998. This reflects more a discontent with the state system than actual planning (The Economist, May 8th, 1999).

⁶⁴ The value of retirement pension is estimated on the basis of the last 36 months of contribution to the system, up to a limit of approximately US\$ 1000. Civil servants can,

was close to 2 million people between 1991 and 1995, the value of the average pension doubled during that period and it comprised one-third of the rural population in retiring age (Dias/Amaral (1999)).

Furthermore, life expectancy of the population has increased in recent decades. Since the system allows for retirement on the basis of years of service, it turns out that 2/3 of retirees were 54 years old in 1995, with a life expectancy of another 22 years. Expenditures with social security absorbed in 1998 some 10% of GDP⁶⁵, with the number of actual beneficiaries reaching 19 million people. Social security deficit corresponded in 1998 to approximately 3% of GDP, most of it (75%) due to benefits paid to public servants.

Reform of the social security system comprised therefore the definition of a limit value for pensions and minimum age for retirement. Military personnel were also forced into start contributing.

Price stabilisation and trade opening have (predictably) fostered economic activity and investment, both via the increase in domestic demand for consumer goods, and by easing the access to cheaper imported capital goods⁶⁶.

Most firms in the manufacturing sector experienced in the early 1990s (1990-92, mostly) a process of rationalisation of production, as one of the tools to face competitive imports. When inflation disappeared returns to investment were relatively high, due to the lower cost of equipment and parts, to the fact that most firms had already undergone a rationalisation process and that the new equipment helped to overcome the technological gap of the productive sector. This helped to foster factor productivity in manufacturing, even at the cost of making the sector more capital-intensive⁶⁷.

Industrial investment concentrated essentially in modernisation, with only limited productive capacity expansion in some specific sectors⁶⁸. The ranking of sectors by capital formation show a different picturing than the one observed in previous investment cycles, such as in the 1970s. Table 3 shows the basic information.

differently, retire and earn the equivalent of their last wage. Rural workers are assured retirement but do not contribute. Resource transfer that followed from the inclusion of rural workers to social security scheme are considered as having been a major contribution to reducing the percentage of households below poverty line from 41% in 1990 to 20% in 1996 as estimated in CEPAL (1999).

⁶⁵ When both public and private regimes are taken into account.

⁶⁶ An effect amplified by the exchange rate overvaluation throughout most of the second half of the decade

⁶⁷ Bonelli/Fonseca (1998) estimate that the yearly increase in total factor productivity went up from an average of 1% in the 1980s to 2.1% in 1990-97. According to Neri/Camargo (1999a) industrial output grew 10% between 1991 and 1995, whereas industrial employment fell 22% in the same period, leading to a 40% increase in labour productivity.

⁶⁸ In some sectors – such as the automobile industry – there has been actually some 'greenfield' investment, motivated by fiscal incentives. But in most sectors investment projects essentially aimed at modernisation.

Sectors which led investment in the 1970s – manufacturing, mining and petroleum – actually reduced their share in gross capital formation in the 1990s. Investment in infrastructure (electric power, telecommunications, transportation and sewage and water supply) was reduced in 1990-94 to between half and one third of the amounts observed in the 1970s. Comparing the first and second half of the 1990s one finds a sharp absolute fall in investment in electric power, a rather stable pattern in transportation and sewage and water supply and a sharp increase in telecommunications.

Within manufacturing, consumer goods led the pace (the most dynamic segments being durable goods, led by transnational companies), stimulated by the impressive 'wealth effect' stemming from price stabilisation⁶⁹. Unfavourable results obtained to intermediate goods and capital goods.

Table 3 – Brazil: Gross Fixed Capital Formation – 1970-1997
(percentage of GDP; from constant 1980 prices)

	<u>1970-80</u>	<u>1981-89</u>	<u>1990-94</u>	<u>1995-97</u>
Manufacturing	4.5	3.2	2.0	3.3
Mining	0.2	0.2	0.1	0.1
Petroleum	0.9	1.0	0.4	0.4
Infrastructure	5.4	3.7	2.3	2.2
of which:				
Electric Power	2.1	1.6	0.9	0.6
Telecommunications	0.8	0.4	0.5	0.7
Transportation	2.1	1.5	0.8	0.8
Sewage&Water Supply	0.5	0.2	0.2	0.1

Source: Bielschowsky (1998)

The three new elements affecting investment in the second half of the nineties are the new role played by incentives granted by local states⁷⁰ and municipalities, the post-privatisation environment, and the import component of investment and production processes. Another important feature of industrial investment since the mid-1990s is that a good deal of it is associated to further exploitation of the country (static) comparative advantages in natural resources⁷¹.

⁶⁹ The only exception being textiles.

⁷⁰ Which have played a decisive role in the unprecedented geographical re-location of productive plants the country has been experiencing in recent years.

⁷¹ According to Bielschowsky (1998) total fixed investment in manufacturing at constant 1980 prices averaged 3.3% of GDP in 1995-97. The group of 'dynamic' sectors formed by producers of Steel Products, Transportation Material, Processed Food, Electric and Electronic Material, Plastics Pharmaceutical Products and Textiles invested on average some 2.1% of GDP, whereas the producers of Chemical Products, Machinery, Non-Metallic products, Pulp and Paper, and Rubber Products invested on average only 0.77% of GDP in the same period.

This raises the question as to what extent has the model of industrial growth in recent years become based on the endowment of natural resources and thus dependent on the international commodity market⁷². A less dynamic pattern raises doubts as to the sustainability over time of such model, as well as to its vulnerability to external market fluctuations. A relevant point is therefore the actual conditions of the economy to support an alternative model that favoured more technology-intense products.

Until the late 1980s scientific and technological policy in Brazil was concentrated in building up the infrastructure for R&D. Two lines of action were undertaken: a) resources for the financing of R&D projects by firms (largely affected by the 1980s crises) and b) fiscal incentives.

During the 1990s the institutional structure related to innovation and research has undergone several changes, mainly due to the reduction of the role of federal government: in 1990 it was responsible for 73% of the investments in research and development of new products (R&D); in 1997 that share had been reduced to 64%.

Part of such reduction has been compensated by a more active role of the private sector. The share of firms in R&D expenditures increased from 15% to 20% in 1990-97, corresponding to an average 0.7% of total sales. Furthermore, the impressive number of ISO 9000 Certificates held by Brazilian firms⁷³ and the increase in private expenditures with technology and capital goods reflect the concern with modernisation of productive plants⁷⁴. But local firms did not as a whole develop their own innovative capacity to enter new markets.

The discussion about potential R&D supply is fundamental for any developing country, and even more so for an economy with 2/3 of its exports consisting of industrial goods. But in the recent Brazilian experience three effects seem to have contributed to such unfavourable outcome: the negative impact of fiscal adjustment (which meant fewer public resources to finance R&D activities), reforms in the legislation facilitating imports of technology⁷⁵ (as part of the process of opening the economy) and the composition of exports⁷⁶, with an increasing share of natural resources-intensive products.

⁷² As different, for instance, from the strategies followed in other emerging economies and in Brazil in previous decades, i.e. the provision of stimuli for (producers and) exporters to enter new, dynamic markets.

⁷³ About 2500 Certificates until 1997 (Tigre et alli (1999a)).

⁷⁴ Although positive, such results compare rather poorly with other countries. The R&D/sales ratio for OECD countries comes close to 2%, and even other emerging economies present a higher commitment with technology: in South Korea the share of the private sector in R&D reaches 80%.

⁷⁵ In 1991 and again in 1993 specific norms have facilitated technology transfer contracts between foreign subsidiaries in Brazil and their matrix companies (see Tigre et alli (1999) for a description of the major changes in legislation).

⁷⁶ The elimination of a number of export incentives has led to a more 'passive' participation in the international division of labour.

The argument may be illustrated as follows⁷⁷. Firstly, comparing the productive structure of the manufacturing sector in 1980 and in 1994 it turns out that there was a reduction in the share of traditional industries (from 35% to 31%), but the relative weight of electronic industries⁷⁸ is still rather limited (8% in 1994), largely surpassed by Chemicals (20%) and Automobiles (10%).

Secondly, comparing the rates of growth of output between 1990 and 1996 the best performance is to be found in the producers of consumer durables (9%), whereas for the producers of capital goods growth was virtually nil and for the manufacturing sector as a whole it was less than 2%. As a consequence, the relative importance of industrial sectors when classified by end-use of their production varied as indicated in Table 4.

Table 4 – Structure of Value of Production by Types of Industries

	<u>1989</u>	<u>1994</u>
Commodities	32.5	34.4
Durable Consumer Goods	13.0	14.9
Capital Goods	11.5	6.7
Traditional Goods	42.9	44.0
Total	100	100

Source: Tigre et alli (1999a)

According to Table 4, producing sectors linked to final consumption have increased their share in manufacturing production - largely an outcome of the wealth effect that followed price stabilisation - whereas the relative weight of the producers of capital goods fell to almost half in the same period.

Thirdly, and as far as foreign trade is concerned, the share of Brazilian products in total world exports remained throughout the 1990s close to 1%, less than the 1.5% it reached in the mid-1980s. The highest rates of growth of exports between 1990 and 1996 were achieved by sugar and wood (19%), meat (14%), chemical products (14%), vegetable oils and vehicles and their parts (about 9% each). Table 5 illustrates the argument, for groups of products.

According to Table 5, the share of agricultural products remained constant throughout the decade⁷⁹, whereas mining products corresponded in 1995-97 to an even smaller share than in 1990. The more important and more dynamic part of exports are to be found in traditional industrialised products, followed by rather small gains in participation also for durable goods and products associated with the diffusion of technical progress.

⁷⁷ Tigre et alli (1999a).

⁷⁸ The most dynamic segment in the present technological paradigm. For the sake of comparison suffice it to say that in Taiwan, South Korea, Singapore and Hong Kong the share of electronic industries was on average 16%, in the same year.

⁷⁹ Although much lower than in the 1980s. This point is discussed later on.

Table 5 – Brazil – Export Composition (%) According to Type of Goods
1980 – 1997

	<u>1980</u>	<u>1990</u>	<u>1995-97</u>
<i>Primary Goods</i>	28.9	19.7	17.4
of which:			
Agricultural	20.0	10.8	11.0
Mining	8.9	8.9	6.2
Energy	0.1	0.0	0.0
<i>Industrial Products</i>	69.7	79.1	81.2
of which:			
Traditional Products	36.2	28.7	31.8
Durable Goods	6.7	6.8	8.3
Diffusion of Technical Progress	10.8	12.8	13.7
Other ind. Products	16.0	30.8	27.4
<i>Other Products</i>	1.4	1.2	1.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Source: CEPAL (1999)

As a whole, therefore, the low dynamism of Brazilian exports in the 1990s is apparently associated to the pattern of specialisation: notwithstanding the higher share of industrial products, the export bill is largely characterised by the export of natural resources-intensive commodities and energy-intensive or labour-intensive products⁸⁰.

An economic environment more open to trade had implications also for the multiplier effects of foreign trade. For instance, Tigre et alli (1999) have found that for sectors such as ceramics and steel – in the production of which the country has (static) comparative advantage – trade opening did not challenge local producers⁸¹, and was actually instrumental for developing a network of local suppliers. For other sectors – such as automobiles and telecommunications - which depend less on such endowment of resources the exposure to imported competitive products coupled to easier access to capital goods and inputs produced elsewhere has meant a new challenge and actually led to a disruption of the links with local suppliers, affecting therefore the possibility of inducing research in product and process development.

The consequences of these movements – price stabilisation, strong domestic demand and investment in specific sectors - for the labour market have been varied. Until the beginning of 1995 total employment grew, as a net outcome of the increase in the number of workers in commerce and services and in the

⁸⁰ As illustrated, for instance, by the remarkable export performance of pulp, paper, orange juice, soya and semi-processed mineral products.

⁸¹ The ceramics sector is actually a very successful story of restructuration leading to an increase in the number of patents, more expenditures in R&D and a number of other positive effects.

informal sector, more than compensating the reduction in employment in the industrial sector and in agriculture.

The participation of industrial employment in total employment fell from 25% to 16% between 1990 and 1997⁸². Almost all of this change in the sector structure of employment is associated to the migration of workers from the manufacturing sector into the commerce and service sectors⁸³, by and large associated to the new technologies and to (low) labour costs⁸⁴. Table 6 illustrates the urban occupational structure by sectors.

Table 6 – Brazil: Urban Occupational Structure by Sectors – 1990-1996
(%)

	<u>1990</u>	<u>1996</u>
Agriculture and Mining	6.8	8.7
Manufacturing	25.2	16.0
Housing	1.0	7.5
Transportation & Communications	4.8	4.6
Commerce and Services	62.2	63.2
Total	100.0	100.0

Source: CEPAL (1999)

It comes out from Table 6 that the reduction of employment in manufacturing has been compensated by an increase in labour absorption in housing and commerce and services⁸⁵.

Industrial employment has been falling since 1995 (in spite of output growth), whereas employment in the commerce and service sectors increased up to the end of 1996, stagnating since then. In other words, at the beginning of the process of price stabilisation the increase in employment in the service sector more than compensated the fall in industrial employment, but that happened only until 1997. As a result, by the end of the decade there has been higher and increasing open unemployment: according to IBGE open unemployment increased from 4.3% in 1990 to 7.6 % in 1998 (Chart 4).

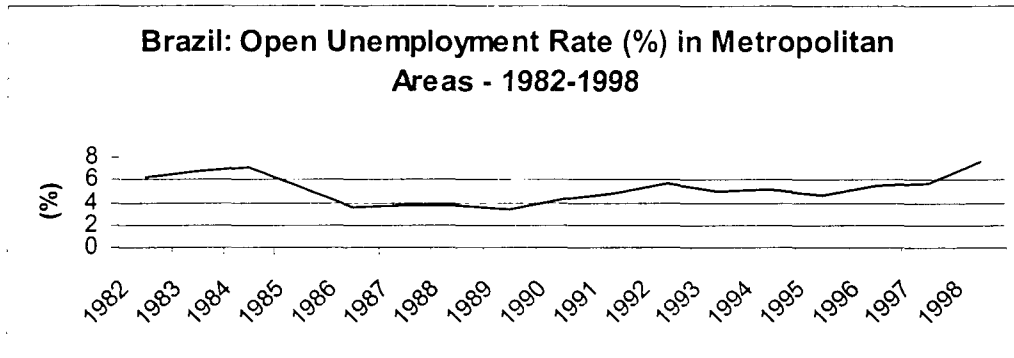
⁸² There was also a reduction of employment in agriculture, to be discussed later on.

⁸³ This migratory process was also facilitated by another structural characteristic of the Brazilian labour market: on average between 2.5% and 3% of industrial workers change job every month; about 40% of the workers in the industrial sector have been in the same occupation by less than two years, thanks to the legislation regulating payments following dismissals (See Amadeo/Gonzaga (1997)) and Amadeo/Neri (1997) for more details.

⁸⁴ The increase in labour costs in the industrial sector (55%) between 1994 and 1997 surpassed the corresponding increase in the services sector (15%) (Camargo (1998)).

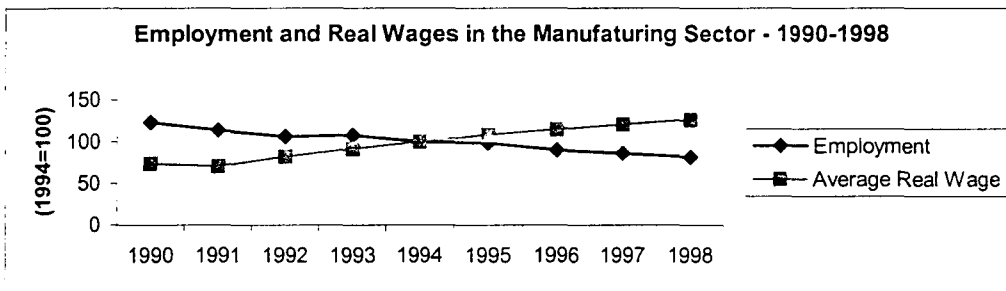
⁸⁵ Figures relative to agriculture in Table 5 reflect apparently the significant increase in the number of self-employed workers: the share of rural wage-earning workers has fallen from 44% of total employment in this sector in 1990 to 34% in 1996, whereas the number of self-employed workers increased from 53% to 64% in the same period (Cepal (1999)).

Chart 4



In general there has been a clear shock of productivity both in the industrial sector and in the services sector of the Brazilian economy, although this has been more intense in the former⁸⁶. Previous references to productivity gains reflected in labour/output ratios are confirmed by other indicators, such as the evolution of the initial wage of hired workers⁸⁷ as well as the number of years of formal study by industrial workers⁸⁸.

Chart 5



Real income of urban workers was not reduced throughout the period: 1) stabilisation and opening favoured relatively the prices of non-tradable goods; 2) while this favouring persisted the real income of workers in services increased; 3) when (i) employment in both manufacturing and services started to lose momentum, (ii) open unemployment started to rise and (iii) relative prices stopped favouring the products of these sectors, real income of the workers in services started to fall systematically; but 4) in the industrial sector,

⁸⁶ Which might lead to an increasing disparity of wages between the two sectors in the future (Camargo/Neri/Reis (1998)).

⁸⁷ Taken as an indicator of marginal productivity of the labour force, it indicates that between 1995 and 1997 the gains in productivity were 45% in the industrial sector and 33% in the services sector (Camargo/Neri/Reis (1998))

⁸⁸ The percentage of workers with less than four years of study fell from 38% in 1989 to 31% in 1996, whereas the percentage of workers with more than 8 years of study increased from 42% to 49% of the labour force (Camargo/Neri/Reis (1998)).

while employment fell the real income of workers increased until 1998, rising the real cost of labour in this sector (Chart 5)⁸⁹.

Adjustment in the labour market to an economic environment open to trade and with stable prices involved therefore the movement of workers from tradable into non-tradable sectors. This is consistent with previous considerations relative to the increasing capital-intensity of production that followed trade opening.

So far for the urban sectors. Until the mid-80s the agricultural sector experienced a period of continued governmental intervention, and was instrumental to the growth process by providing food supply at low cost. Since the second half of that decade however agriculture has lost its major compensatory mechanism, the (highly subsidised) official credit programs, as part of the fiscal adjustment process.

In the new (post-1990) environment - where the agricultural sector is exposed to international competition and lacks official credit - the major explanatory factor for output growth has been sharp systematic increase in productivity: the loss of easy credit led producers to reduce average costs via sharp productivity growth coupled to a moderate reduction in cultivated area and a significant reduction of jobs.

For the most important goods productivity in 1996-98 had varied quite substantially in comparison to 1990-92: Cotton had an increase in productivity of 26%, Soya 29%, Coffee 27%, Corn 30%, and Beans 21%⁹⁰. Indicators of productivity for the agricultural sector as a whole indicate a systematic increase from 1987 to 1998: the yearly rate of increase for such indicator is close to 1.8%⁹¹.

Such impressive productivity growth was favoured by: a) the poor infrastructure for transportation has led to more intensive land exploitation, with areas closer to urban centres becoming more intensely used for production; b) increasing use of new domestic technologies⁹²; c) increasing professionalism of the labour force, associated, among other things, with the migratory movements from the Southern States to the Western and Northern regions of the country; d) trade opening having reduced input costs (Dias/Amaral (1999)).

To partially compensate the social burden of such adjustment in the agricultural sector the government has accelerated the agrarian reform programs and created a credit program for small household agricultural production. But as far as income generation is concerned one of the most

⁸⁹ A 30% increase between 1994 and 1997 (Camargo/Neri/Reis (1998)).

⁹⁰ Data from Dias/Amaral (1999)).

⁹¹ In the cattle-raising subsector a similar figure obtains, with an annual increase in productivity close to 1.9%. (Dias/Amaral (1999)).

⁹² Mostly developed by Embrapa - Empresa Brasileira de Pesquisa Agropecuária, linked to the Ministry of Agriculture.

important compensatory measures has been the reform of the social security system, allowing for retirement of rural workers.

An important element for the sustained growth of output in the agricultural sector has been the improvement of that sector's terms of trade. Between 1987 and 1994 (peak year) the terms of trade in agriculture increased 46%. Profitability in the sector increased 59% between 1987 and 1998, reflecting an increase of 22% in productivity and 31% in the index of the terms of trade of the agricultural sector⁹³. It is this advantage – measured in terms of productivity and improved terms of trade – what has helped producers using new technologies to find substitutes for the traditional rural credit.

The general picturing that comes out from these figures is that the agricultural sector has adjusted itself via higher productivity coupled to increasing capital/output ratio and selectivity of producers, all of which imposes an additional burden on the urban labour market.

These indicators suggest that Brazil is about to complete its set of so-called first generation reforms. These new conditions impose, on their turn, new challenges in that different conditions are required for the very sustainability of the results obtained so far, leading to what has been called a second generation of reforms.

These comprise further steps, for instance, in reforming the social security policy. Experience has shown that as it stands the social security system is bound to present impressive deficits in the coming years, and even more so when domestic economic activity is low, providing reduced fiscal revenue. For the system to be in equilibrium over time a number of additional measures have yet to be adopted.

Fiscal constraints throughout most of the decade have led to adjustment of the public sector via expenditure cuts. There are clear limits for that, not least in terms of the very efficiency of the services provided by governmental agencies. Multiplicity of agencies with overlapping functions, geographical concentration of public servants, differences in wage levels are some of the aspects that call for sound administrative reform. Some steps have been taken in that direction with a number of measures mostly associated to the control of expenditures. But little doubt remains about the need for additional reforms.

Labour market has been shown to be also subject to a number of constraints imposed by a legislation which in several aspects dates back to the thirties. Trade union representation, their actual financing, incentives to mobility among different activities are all part of the same package of difficulties that have to be dealt with soon.

Other reforms which are also often demanded have to do with the functioning of the judiciary system – costly and slow moving – as well as with the very

⁹³ Dias Amaral (1999).

means of political representation and decision, via the (historically unprecedented) creation of mechanisms through which citizens feel actually represented and with active voice. This requires some deep changes in the party political structure and electoral legislation.

These are necessary steps that will have to be taken if the Brazilian economy and society are to become mature and open to relations with the rest of the world. But these further reforms are more complex by nature and require far more time and political consensus than those achieved so far.

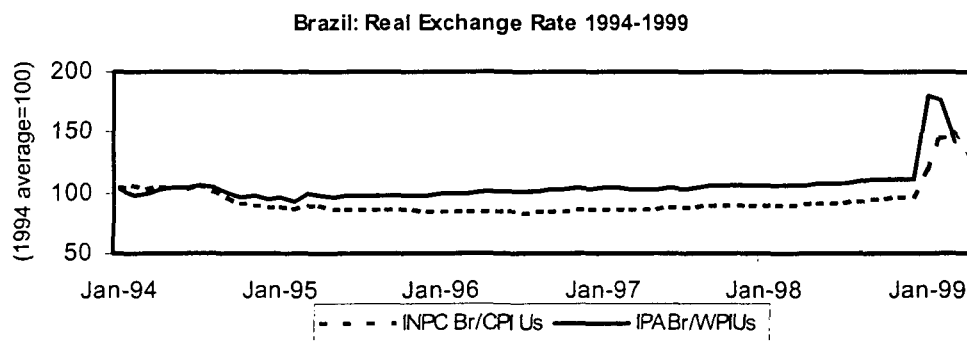
IV – What Did Not Work? Do We Know Why?

The Brazilian experience with reforms is a rather rich one. Reforms had (ex-post) a well-defined sequencing, they were varied, and mostly simultaneous to a stabilisation program.

Little doubt remains about the 1990s having been a period of remarkable changes in the Brazilian economy, with several of the so-called first generation reforms having been almost completed. A number of indicators show however that not everything went the way one would have expected.

To start with, the two intensification episodes of the process of import tariff reduction that took place in 1990 and 1994 were mostly designed as part of price stabilisation programs. As a consequence, the phasing down of tariff rates was neither instantaneous nor a linear process over time. Several sectors had to face instead a sequencing of increases and reductions of tariff rates in relatively short periods of time⁹⁴. This mixed signalling imposes a burden on investors and consumers of imported goods.

Chart 6



⁹⁴ Baumann et alii (1997) have shown that for a number of products there were up to 8 changes of nominal tariff rates in a 26-months period from July 1994 to September 1996. In some cases nominal tariff rates oscillated between 0% and 19% (between 19% and 73% for some other products) and those changes were repeatedly in both directions (i.e., a sequencing of increases and reductions).

One of the most frequent criticisms in relation to the stabilisation policy adopted in 1994 is that looking back after five years since its adoption it turns out that the program has remained essentially a stabilisation program. It lacked a medium- to long-term strategy. Economic policy remained subordinated to this major goal, and this was not costless.

Exchange rate was kept below equilibrium levels on the grounds that: i) economic 'fundamentals' have changed with price stabilisation (hence parity criteria had to be reconsidered on a new basis), ii) exchange rate devaluation would have imposed cost pressures (thus impairing the stabilisation process), and iii) the more sound macroeconomic scenario would assure the attractiveness of the economy to foreign investors. As shown in Chart 6, competitiveness (measured in terms of parity) deteriorated until mid-1996.

Interventions in the foreign exchange market via adjustment of bands or intra-band intervals were defined by variations in wholesale price indexes, on the grounds that: a) in stabilization processes the prices of services typically present a slower process of adaptation to foreign prices than the prices of those goods exposed to foreign competition; b) the relevant indicators are those associated to competitiveness of tradeable goods; c) given the magnitude of changes in the process of price formation, there would be no reason to take as references the price levels previous to the Real Plan.

As Chart 6 shows, the overvaluation of the Real was more pronounced when considered in terms of consumer prices. Such overvaluation has been reduced since 1997, when the government started to signal the need to change the exchange rate gradually in accordance to domestic inflation, but external pressure called for sharper variation of the exchange rate in 1999.

The positive effects on competitiveness stemming from trade reform were expected to generate positive export performance. It is still not quite clear the extent to which the easier access to import goods has helped export growth. In any case, high domestic interest rates affected the production of exportable goods, and wage increase plus exchange rate overvaluation have negatively affected traders. At the same time, demand for imports boomed. As a result, large trade deficits obtained.

The literature surveyed in Section II would suggest that this procedure might have been part of the government's strategy to gain credibility to its reform program. It is not clear, however, the amount of time required by the credibility argument: exchange rate policy was essentially maintained with only minor changes during four and a half years.

On the monetary side, in the first half of the nineties domestic debt was financed via bonds with fixed interest rates. Since the Real Plan, price stabilisation coupled to the inflow of foreign capital have led authorities to change their financing structure into a predominance (75%) of bonds with flexible interest rates and dollar-indexed bonds (21%). Continued use of monetary policy and restrained exchange rate were instrumental to sustain price stability, but the maintenance of high interest rates this policy mix

requires has fostered public debt, and the government has not been able to make the necessary changes in policy.

This is not to say that there were no efforts to increase revenue: fiscal revenue increased from 25% of GDP in 1993 to 30% in 1998, and 'primary'⁹⁵ fiscal results were positive throughout the second half of the decade. The problem is to be found in the expenditure side, and especially as a consequence of the variation of domestic interest rates: in 1998 payment of interest rates on domestic public debt corresponded to 44% of total fiscal revenue.

An overvalued exchange rate stimulated importers' demand for foreign currency. Changes in the legislation, price stabilisation and renewed access to international capital markets led to massive inflow of foreign capital (loans and portfolio investment initially, followed by foreign direct investment).

The outcome has been a vicious circle of foreign currency inflow being monetised and having to be neutralised via higher interest rates. These, on their turn, pressed fiscal accounts, leading to higher debt, need for new loans and hence even higher interest rates. Table 7 shows the several components of fiscal deficit.

Two aspects are worth noting in Table 7. First, interests on domestic and external debt explained most of the deficit by the end of the decade. Second, the monetisation that took place at the beginning of the stabilisation process was replaced by domestic and external bond selling as sources of public financing.

Table 7 - Brazil – Main Components of Fiscal Deficit (% of GDP)

	<u>1994</u>	<u>1998</u>
<u>'Operational' Fiscal Deficit</u>	-1.4	7.5
<u>Uses</u>		
'Primary' Deficit	-5.3	-0.0
Interests on Domestic Debt	3.2	7.2
Interests on External Debt	0.7	0.3
<u>Sources</u>		
Domestic Financing	-2.6	4.5
External Financing	-3.0	2.2
Monetary Expansion	4.3	0.8

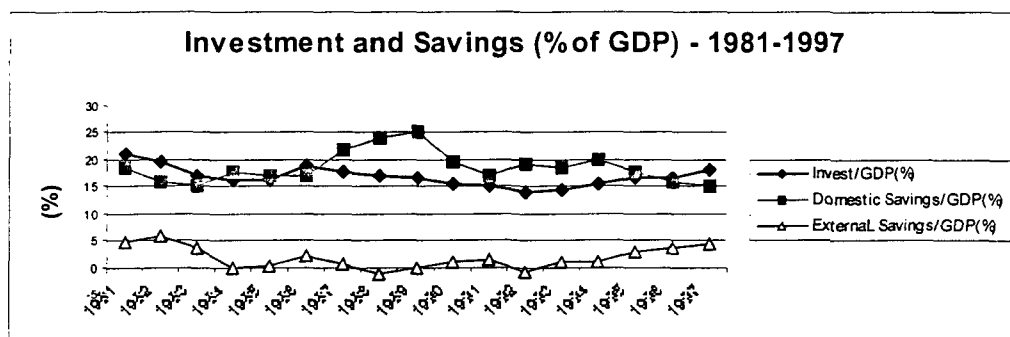
Source: Central Bank Bulletin, May/99

⁹⁵ That is, excluding monetary correction and the payment of interest rates.

Reliance on external savings has been a mixed blessing. It has helped to finance public debt, as shown in Table 7, but at the same time the increase in external savings rate after 1994 (from 0.9% to 4.4% of GDP in 1998; see Chart 7) financed mostly consumption. Investment rate increased from 15% to 18%⁹⁶ in those four years⁹⁷, but most of it was essentially modernising projects, not productive capacity expansion⁹⁸. Between 1993 and 1996 private consumption explained 72% of the increase in aggregate demand, whereas capital formation corresponded to only 22%⁹⁹.

The privatisation programme contributed to deal with this background of incomplete fiscal adjustment via the sale of public firms and the relief of the fiscal burden imposed by inefficient state-owned enterprises. Whatever the consequences for productive efficiency, however, two side effects are worth noting.

Chart 7



Some firms were sold even before the regulation of their sector was complete, and this might negatively affect competition in the domestic market. On the other hand, privatisation of several important firms was initially the outcome of financial arbitrage movements, involving agents not directly involved in the productive activity, and – until recently – a limited participation of foreign investors. Efficiency gains might as a consequence be not as high as planned or it might take some time until changes in ownership provide the conditions for competitiveness.

Even though one of the objectives of the privatisation programme seemed to be to maximise revenue, and despite the impressive amount of resources involved, a large public debt remained, due mostly to the public sector wage bill (9% of GDP in 1997), social security deficit (9.4% of GDP) and real interest rates (3.4% of GDP)¹⁰⁰.

⁹⁶ At constant 1980 prices.

⁹⁷ Mostly by the private sector: public investment in machinery and equipment was reduced from 0.7% in 1994 to only 0.4% in 1998, whereas for investment in construction those rates were 2.9% and 1.8%, respectively, according to IBGE.

⁹⁸ Reliance on external financing also raised total external debt by 47% in four years, from US\$ 151 billion in 1994 to US\$ 222 billion in 1998.

⁹⁹ Sáinz/Calcagno (1999).

¹⁰⁰ Cysne (1998).

Privatisation of public firms, coupled to changes in regulation and elimination of public monopoly in several sectors have improved private capital activity. But private capital has become more active only in the productive sector. Its contribution to social expenditures has remained quite limited. Although private firms and NGOs have for quite some time participated in the provision of social services, most of it remains still very much a public sector activity.

The level of social expenditure in Brazil is quite comparable to most medium-income countries – about 19% of GDP, although unfairly distributed - and reforms have not been able so far to alter significantly the origin and composition of revenues: in spite of Constitutional changes, social expenditure remain dependent (58% in 1996) upon funds formed by social contributions¹⁰¹.

Furthermore, aggregate social indicators suggest that there is still a long way to go in this area. Price stabilisation and public transfers have provided significant positive effects. Real income of employed workers increased 30% between 1993 and 1997, due essentially to: a) sharp increase in transfers to households at all income levels and b) changes in relative prices that have reduced the price of basic products. As a consequence, between 1990 and 1996 the share of households below poverty line fell from 41% to 29%¹⁰², which is an undisputed positive indicator.

Insofar as income equality is concerned Neri/Camargo (1999) estimations – using PNAD¹⁰³ data – confirm the well-known high income concentration in Brazil, and find relatively small variation in the indicators of inequality between 1990 and 1997 (the coefficients are almost stable, when one allows for the margin of error in this type of indicators). This result is achieved using both a Theil-T index (0.748 in 1990 and 0.715 in 1997 for all income sources) or a Gini coefficient (0.607 in 1990 and 0.595 in 1997 for all income sources)¹⁰⁴. Moreover, most of the reduction in inequality measures obtained in Brazil in 21 years (1976-1997) took place in 1993-1997.

Neri/Camargo (1999) also show that detailed computation of primary PNAD data calls for a qualification of these results. This fall in overall inequality indicators does not reflect an improvement in income distribution: the share of the richest strata of the population in total income remains very high and the individuals in those strata have accrued most of the gains stemming from a number of effects, such as those associated with better payment for more

¹⁰¹ Resources remain concentrated in specific areas: federal government concentrates 2/3 of its resources in social security and benefits to public servants; local states concentrate their resources on education, benefits to public servants and health, whereas municipalities have 3/4 of their social expenditures in education, housing, health and sewage and water supply.

¹⁰² The reduction being from 36% to 25% in urban areas and from 64% to 46% in rural areas.

Data from CEPAL (1999).

¹⁰³ PNAD – Pesquisa Nacional por Amostra de Domicilio.

¹⁰⁴ Alternative methodologies using a different unit for analysis – as in CEPAL (1999) - also indicate quite high degree of concentration with relatively small variation during the 1990s: in 1990 the Gini coefficients were 0.528 for urban areas and 0.456 for rural areas, only slightly lower than the corresponding 1997 coefficients of 0.538 and 0.460, respectively.

qualified workers, better payment by type of activity, financial gains obtained from the high interest rates, and others. Several tests indicate that the improvement in those inequality indicators are an outcome of wealth effects following from the lower cost of consumption basket as well as the reduction of volatility of workers' income following from price stabilisation. There has hardly been any significant structural change in the profile of income distribution in this period.

Be that as it may, the significant number of households that crossed poverty line has had a major impact on domestic aggregate demand. As a consequence, imports boomed, at the same time that aggregate investment rate increased, by and large to meet domestic demand.

In most industries investment increased significantly in 1995-97 as compared to 1990-95. But except for telecommunications it remained below the levels observed in the 1970s and 1980s. In the 1990s there is clearly a new investment model, probably more efficient from the microeconomic viewpoint, but not instrumental in terms of productive capacity and economic growth. Furthermore, investment has been more intense in those sectors that remained somehow protected from foreign competition (such as consumer durables), with highest productivity, and where the presence of transnational companies is more intense.

Apart from manufacturing the record of investment is mixed. In the mining industry there has been very limited investment (due to the relatively low knowledge of available resources, and poor market perspectives for those minerals with known reserves), the same occurring in the petroleum industry.

Productive and distributive bottlenecks are so widespread that they have become to be known as "Brazil Cost", meaning overall inefficiency costs imposed by specific inadequacies. Investment in infrastructure is also a mix of successes and failures. Modernisation of ports is under way, since their privatisation, but at the same time there has been relatively small investment in railways and equipment, and several constraints remain in the railway system, due to the lack of integration with other transportation facilities. Private investment is also starting to improve conditions in a number of roads, but this is still a troubled sector, since only a few motorways in the country are likely to be privatised, given the expected private profitability.

The most impressive performance has taken place in telecommunications, with an unprecedented amount of investment associated to privatisation. At the same time, however, there has been a mediocre performance in electric power, leading to insufficient supply and even risk of blackouts. In sewage and water supply there has been an important recovery of investments since 1996, but there might be some future constraints led by financial difficulties and high indebtedness of firms in the sector.

From the viewpoint of industrial policy, therefore, reforms have allowed only a partial success in the improvement of infrastructure. As shown, output growth could resume for some time, but increasing doubts remain as to the resulting

productive structure and its long-term perspectives, insofar as the economy's insertion in the international division of labour is concerned¹⁰⁵.

In general firms tried to adjust themselves to import competition via defensive specialisation strategies, often affecting negatively the local production of parts and products with higher technological contents. The process of adjustment of the industrial sector fostered competitiveness in those sectors that are intensive in gains from scale and use labour intensely. Facility to import capital goods has stimulated the modernisation of sectors with low technological dynamism

In 1991-93 a number of measures led to facilitating the import of technology. But the utilisation of foreign technology has traditionally not been accompanied by a domestic technological effort other than the adaptation of such technologies to local conditions¹⁰⁶. Only a limited number of firms have R&D activities, and technological links outside the firm are rather limited, not only among firms but also between them and universities and research institutions. An industrial sector excessively heterogeneous makes it harder to establish technical relation among firms.

More capital-intensive production processes with higher import content have also contributed to add a structural component to the increase in open unemployment: even when the economy resume an output growth trajectory, the reduction in open unemployment is slower than in previous periods. The period of time that the average worker remains unemployed increased from 3.5 months in 1991 to 6 months in 1998¹⁰⁷.

This is favoured by labour legislation¹⁰⁸. As a consequence, 3% of the workers in the manufacturing sector change job every month, reducing the incentives for labour training, and adding to the difficulties previously mentioned, with regard to local technological efforts.

The effects of adjustment were felt also in the rural area. Reduced credit, trade liberalisation and an overvalued foreign exchange have provoked significant changes in the relative prices of agricultural products.

¹⁰⁵ There are concerns also with regard to the actual involvement of producers with the exporting activity: only some 14 thousand firms have systematic operations with the foreign market, out of a total that surpass one million registered firms.

¹⁰⁶ Balance of Payments data show an increase in the import of technology in the 1990s, with a significant change in its composition: the share of imports of 'specialised technical services' in total imports of technology fell from 67% in 1990 to 32% in 1996, with a simultaneous sharp increase in payments for 'use of patents', and 'supply of industrial technology' (for non-patented technologies). This reflects an increase in importing and transferring foreign technology, without a corresponding increase in the expenditure in R&D by local firms (Tigre et alli (1999)).

¹⁰⁷ Camargo/Neri/Reis (1999).

¹⁰⁸ When the economy is growing and unemployment rate is low there is an 'implicit incentive for workers to provoke their dismissal, as they receive a payment corresponding to one monthly wage plus 40% of a fund accumulated by the firm (FGTS - formed by one wage per year employed in the firm) (Amadeo/Gonzaga (1997)).

The agricultural sector adjusted itself by trying alternative forms of internal capitalisation, mostly associated to sharp increase in productivity, cost cutting and reduction of assets. As a consequence, there has been massive unemployment¹⁰⁹.

The impressive increase in demand for food¹¹⁰ following stabilisation was met by an increase in domestic food supply fostered by the significant reduction in imported input costs. This characteristic, coupled to the sharp reduction of official credit, has proven to be highly discriminatory against smaller producers, users of more traditional technologies. The elimination of producers with productivity levels below average contributes additionally to increase open unemployment rates.

The questions that follow from this picturing and the dissatisfaction with the results have to do with the reforms having been incomplete, incorrectly implemented or whether inappropriate signals were given to economic agents.

V – Lessons from the Brazilian Experience

The reforms that have taken place in Brazil since the late 1980s are quite illustrative in several aspects. To start with, these reforms have at least two characteristics not considered by the usual models: a) they have taken place in parallel with a process of regional integration (Mercosur), and the commitments associated to that process were significant, at least for foreign trade policies; b) Brazil is a federative structure, and this has strong implications for the outcomes of several reforms, such as the reforms of the social security system and the financial sector.

As suggested by Chart I, Section III, the sequencing of reforms has apparently corresponded to the recommendations found in the literature: trade reform has preceded every other reform. But there were clearly two stages – until mid-1994 and thereafter, the turning point having been the adoption of a sharp domestic price stabilisation program.

In other words, trade reform started in a moment when the economy still presented acute macroeconomic imbalances - so the benefits transmitted via relative prices could not be maximised - and then was accelerated in parallel with a stabilisation program.

This simultaneity of opening and disinflation is more familiar to the literature about reforms.

¹⁰⁹ It is estimated that the number of workers in the agricultural sector was reduced by 23% between 1985 and 1996 (corresponding to 5.5 million jobs), whereas the sector output grew 30% in the same period.

¹¹⁰ The purchasing power of urban workers in relation to the cost of food and apparel increased more than 60% since 1990, with the wages of less qualified urban workers surpassing the variation of food prices.

Indicators shown here indicate that opening has actually helped stabilisation and fostered producer and consumer surpluses via the access to import goods. The simultaneity of exchange rate overvaluation required for stabilisation purposes affected both the trade balance and the relative price of tradable and non-tradable goods. As a result, trade deficit developed and there was a stimulus to factor movement towards the production of non-tradable goods¹¹¹.

It is conceded that during stabilisation programs the maintenance of an overvalued exchange rate might be a cost to be paid, if it is part of the government strategy to show fierce commitment to reforming. The alternative social cost of losing credibility in the reforms could be much higher. The question posed by the Brazilian experience is, however, that such policy remained for quite a long period, well beyond the period of time one would have considered as necessary to induce credibility.

As an outcome, this has led to increasing concern in terms of long-term growth. Signalling to economic agents has concentrated in stabilisation purposes. Not much has been done in terms of the conditions for resuming growth, except for the expected efficiency effects stemming from privatisation and trade opening. As a result, investment has increased as a whole, and is more efficient in microeconomic terms, but the amount actually invested is not sufficient from a viewpoint of a long-term growth strategy (increase in productive capacity has been limited) nor does it give much hope in terms of export performance.

It has been shown also that the literature on reforms indicates that the reform of the domestic financial sector should come before the dismantling of controls over foreign capital. The Brazilian experience has been peculiar also in this regard. Incentives to foreign investment were adopted in 1990-91, whereas the actual reform of the financial sector only took place in 1995, after adjustments became necessary due to the loss of inflationary gains that accrued to the banking sector. That reform has not induced a reduction in interest rates, as one might have expected. Instead, there has been a vicious circle of capital inflows coupled to fiscal deficit leading to higher rates, which attracted new capital, and so on.

In terms of the models reviewed in Section II, when lack of faith in the permanence of reforms is coupled to access to external financing the private sector incurs debt to finance anticipated consumption. The Brazilian experience shows a different story. The same effect of increasing external debt essentially to finance domestic consumption occurred in a context of relatively low investment but intense domestic demand, even when there were little doubts with regard to the government intentions (as illustrated by the series of political gains the government has accumulated).

¹¹¹ Very much in the way an absorption approach model with fixed exchange rate would have predicted: a displacement of the production frontier with relative prices benefitting the production of non-tradeable goods.

The basic recipes regarding structural adjustment would also indicate that public expenditures should concentrate in health, education and infrastructure, leaving all other activities to the private initiative.

This is perhaps the aspect where the federative structure of the Brazilian society comes out more clearly as determining the outcomes. Sections III and IV have shown that a number of aspects have changed in the structure of public financing. But evidence also shows that: a) the commitment of the private sector with financing in these areas is slow and limited and b) there are structural constraints that condition the extent to which it is possible to transfer expenditures from the federal government to local states and municipalities. Pursuing such reforms require a re-designing of the whole fiscal structure.

This latter aspect, coupled to the indications of rigidities in the labour market imposed by legislation and to the increasingly evident costs involved in the way the judiciary and parliamentary powers operate lead to the conclusion that there is no partial reforming. Once initiated, if the reforming process is to remain, there is need of a continuous deepening and spreading of the process itself.

In summary, one might identify (at least) seven lessons that can be derived from the Brazilian experience in the 1990s:

1. There are clear gains accruing from the end of inflation but the outcome depends on how stabilisation is sustained.

Brazil has not adopted i) a repressive scheme, such as in Chile in the 80s or Argentina (with the Bonex and reduction of nominal wages) nor ii) a negotiated procedure, such as in Mexico and Israel. Instead, in the Brazilian experience since the mid-1990s, there has been a) nominal exchange rate *anchor*, b) high positive real interest rates, c) real wage repression in the public sector, coupled to d) quantitative adjustment in the labour market, all of which impose the costs of impairing competitiveness and performance in the medium-to-long run.

2. Trade opening has increased producers and consumers surpluses, as theory would have suggested. But the way opening took place seems to have imposed excessively high costs to some sectors.

3. Fiscal adjustment is a must, if one wants to avoid excessively high interest rates and resume public sector actions. But adjustment should be devised in such a way as not to impair productive efficiency nor impose excessive social costs: private financing of social expenditure is neither immediate nor granted.

4. Adjustment of the financial sector is crucial, in a world of intense capital movement: the Brazilian process has cost less in terms of GDP than similar processes in other countries and has been apparently instrumental in avoiding the multiplier effects of recent external crises.

5. Although important, price stabilisation should not become the unique goal of economic policy. Experience does show that it takes some time until inflationary expectations die out¹¹². But a correct signalling to economic agents with regard to resuming output is as important, in order to assure the very conditions for the reforms to be sustainable over time.

6. Once initiated, the process of reform calls for its own continuity at each time higher stages, if a reversal is to be avoided. Therefore, economic contexts with low inflation and open economic relations with the rest of the world call for fiscal fitness and for changes in labour legislation as well as modifications in administrative and institutional procedures.

7. Relying on external savings to resume an investment cycle is a risky bet, since decisions by foreign investors are taken on the grounds of what happens to domestic variables, but include also facts that take place elsewhere.

The intensity and multiplicity of the reforms undertaken in Brazil in the 1990s were such that it is perhaps still early to fully appraise them. A number of policy changes – such as the privatisation of public enterprises and the reform of the social security system - are bound to be translated into dynamic gains only after some time. But it is now nine years since the first significant movements have taken place, and certainly some of the lessons that can already be identified contribute to our understanding of the adjustment process in a developing economy.

The Brazilian experience illustrates a case where reforms did not follow the prescribed ideal sequencing, where in some cases there were inadequate signalling to economic agents, but also where the gains that have been achieved might be easily lost in the case of a reversal of these movements.

REFERENCES

.E. Amadeo, G. Gonzaga, "Brasil: Salario, Productividad y Cambio. Análisis del Costo Unitario en la Industria", in OIT, Costos Laborales y Competitividad Industrial en America Latina, Peru, 1997

. E. Amadeo, M. Neri (1997), "Houve Precarização do Setor de Serviços? Qualidades dos Trabalhadores e dos Empregos no Brasil entre 1989 e 1997", unprocessed

.R.Baumann et alli (1997), 'A Política Tarifária no Plano Real', Pesquisa e Planejamento Econômico, IPEA, Dezembro 1997

¹¹² See, for instance, the analyses of the stabilization experiences in Argentina, Chile, Mexico and Peru published in Ipea/Escriório da Cepal no Brasil (1997): it might take more than four years after stabilization for economic agents to lose their inflationary memories and behave accordingly. The long standing Brazilian experience with widespread indexation might require however an even longer period of adaptation.

.D.Chudnovsky, A.Lopez (1997), "Las Estrategias de las Empresas Transnacionales en Argentina y Brasil: Qué Hay de Nuevo en los Años Noventa?", CENIT, Documento de Trabajo No.23, Buenos Aires

.J.P. Cooley, W.F. Maloney (1995), "Optimal Sequencing of Credible Reforms with Uncertain Outcomes", Journal of Development Economics, Vol.48

.V. Corbo, S. Fischer (1992), "Adjustment Programs and Bank Support: Rationale and Main Results", in V. Corbo, S.Fischer and S.B.Webb (eds), Adjustment Lending Revisited: Policies to Restore Growth, The World Bank, Washington

.R.Cysne (1999), "Aspectos Macro e Microeconômicos das Reformas", in this book

.R.Cysne (1998), "Aspectos Macro e Microeconômicos das Reformas Brasileiras", report submitted to Eclac, unprocessed

.S.Draibe (1998) , "Brasil Anos 90: As Políticas Sociais no Marco das Reformas Estruturais", report submitted to Eclac, unprocessed

.S.Draibe (1999), "As Políticas Sociais nos anos 90", in this book

.S. Edwards, A.C. Edwards (1987), Monetarism and Liberalization: The Chilean Experience, Ballinger Publishing Company, Cambridge

.S. Edwards (1990), "The Sequencing of Economic Reform: Analytical Issues and Lessons from Latin American Experiences", The World Economy, Vol. 13, No. 1, March

.Ipea, Escritório da Cepal no Brasil (1997), O Plano Real e Outras Experiências Internacionais de Estabilização, Brasília

.R.McKinnon (1982), "The Order of Economic Liberalization: Lessons from Chile", in K.Brunner, A.H.Metzler (eds) Economic Policy in a World of Change, North-Holland, Amsterdam

.M.Mussa (1986), "The Adjustment Process and the Timing of Trade Liberalization", in A.M.Choksi, D. Papageorgiou (eds), Economic Liberalization in Developing Countries, Basil Blackwell, Oxford

.M. Neri, J.M.Camargo (1999a), "Economic Reforms and Income Distribution in Brazil", report submitted to Eclac, unprocessed

.M.Neri, J.M.Camargo (1999), "Efeitos Distributivos das Reformas Estruturais Brasileiras", in this book

.D. Rodrik (1992), "The Rush to Free Trade in the Developing World: Why So Late? Why Now? Will It Last?", NBER Working Paper Series No. 3947, January

.D. Rodrik (1993a), "Trade and Industrial Policy Reform in Developing Countries: A Review of Recent Theory and Evidence", NBER Working Paper Series No, 4417, August

.D. Rodrik (1993b), "Trade Liberalization in Disinflation", NBER Working Paper Series , No. 4419, August

.D.Rodrik (1996), "Understanding Economic Policy Reform", Journal of Economic Literature, Vol. XXXIV, March

.G.L Silva Dias, C. Amaral (1999), "Mudanças Estruturais na Agricultura Brasileira: 1980-1998", in this book

.E.Stern (1991), "Evolution and Lessons of Adjustment Lending", in V.Thomas, A.Chibber, J. de Melo (eds), Restructuring Economies in Distress, Oxford University Press

.P.Tigre, J.E. Cassiolato, M.H. Szapiro, J.C.Ferraz (1999), "Mudanças Institucionais e Tecnologia: Impactos da Liberalização sobre o Sistema Nacional de Inovações", in this book

.P. Tigre, J.E. Cassiolato, M.H. Szapiro, J.C.Ferraz (1999a), "Câmbio Estrutural e Sistemas Nacionais de Inovação: O Caso Brasileiro, report submitted to Eclac

.J.Williamson (1990), Latin American Adjustment: How Much Has Happened?, Institute for International Economics, Washington