



**The Institute of Brazilian Business and Public Management Issues**

**Minerva Cultural Institute**

**Trade Policy Reform in Brazil in the 1990s**

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## Table of Contents

	Page
<b>1 From the Import Substitution Model to Market-Oriented Reforms</b> .....	2
1.1 Introduction.....	2
1.2 The Import Substitution Model.....	4
<b>2 Theoretical Aspects: The Gains from Trade</b> .....	7
2.1 Trade and Productivity Growth.....	7
2.2 Protectionism and Macroeconomic Issues .....	10
2.3 Economic Consequences of Protectionism in Brazil .....	12
2.4 From Protectionist Trade Policies to Trade Liberalization.....	14
<b>3 Brazilian Trade Regime and Trade Performance in the 1980s: an Overview</b> .....	16
3.1 Evolution of the Trade Regime .....	16
3.2 Macroeconomic Influences on Trade Performance .....	20
<b>4 The 1990s in Brazil: Import Liberalization in an Unstable Economy</b> .....	23
4.1 Changes in Trade Policy .....	23
4.2 Effects of Trade Liberalization on Wage and Productivity.....	30
4.3 The Behavior of the Exchange Rate.....	34
4.4 Minilateral Agreements as a Means of Pursuing Trade Liberalization.....	36
4.5 Overall Assessment of Brazilian Trade Liberalization in the 1990s.....	39
<b>5 Concluding Remarks</b> .....	45
References .....	47

# 1 From the Import Substitution Model to Market-Oriented Reforms

## 1.1 Introduction

Beginning in the mid 1980s, structural reforms were implemented in Latin America, in an effort to move from closed, state-dominated economies that characterized the Import Substitution Industrialization model to more market-oriented economies. Trade policy was one of such reforms.

Most Latin American countries began to open up their economies to the rest of the world in the late 1980s. This process is one of the most impressive achievements of the structural adjustment programs that followed the debt crisis and has put an end to more than four decades of industrial policies based on import substitution.

In the mid-1980s, Latin American external sector was the second most distorted in the world, with high degree of import protection in terms of both tariff and non-tariff barriers, as can be seen in Table 1.1.

**Table 1.1 Import Protection in the Developing World, 1985 (in %)**

Region	Total Tariff Protection <sup>1</sup>	Nontariff Barrier Coverage <sup>2</sup>
South America	51	60
Central America	66	100
Caribbean	17	23
North Africa	39	85
Other Africa	36	86
West Asia	5	11
Other Asia	25	21

Source: Erzan and others, 1989,

<sup>1</sup> includes tariffs and para-tariffs.

<sup>2</sup> measures as a percentage of import lines covered by nontariff barriers

By 1987-88, it became apparent that a permanent solution to the region's economic problems would imply a fundamental change in its developmental

strategy. Policymakers began to realize that the long-standing protectionist trade policy was one of the causes of the region's problems.

However, as pointed out by Edwards (1995), the process leading to these trade reforms has not been easy. As recently as the mid-1980s, the protectionist view was still influential in many parts of Latin America. In fact, the debt crisis of 1982 had provided a new impetus to the protectionist paradigm. Many authors interpreted the debt crisis as a "failure of the economic order" and argued that the only way for Latin America to avoid a recurrence of this type of shock was to foster further isolation from the rest of the world through selective protectionism and government intervention (Griffith-Jones and Sunkel, 1986, Taylor, 1991).

## 1.2 The Import Substitution Model

The Great Depression had a fundamental impact on Latin America. Terms of trade plummeted, capital inflows stopped, and real income was severely reduced. The effects of the decline in the worldwide demand for raw materials in 1929-30 were deepened by the adoption of protectionist policies in the United States and Europe, such as the Smoot-Hawley Tariff Act in 1930 and the British Abnormal Importations Act of 1931.

Most Latin American countries reacted to these events by abandoning convertibility, devaluing their currencies and imposing tariff barriers. Díaz-Alejandro (1981) has described these policies as follows: “Exchange rate devaluations were not the only measures undertaken ... [T]here were also increased tariffs, import and exchange controls, bilateral clearing agreements and ... multiple exchange rates” (p. 340).

The creation of the UN Economic Commission for Latin America and the Caribbean (ECLAC) provided an intellectual underpinning for the protectionist position. In particular, the writings of Raúl Prebisch and Hans Singer conferred an aura of respectability to import-substitution policies. These authors’ thinking was based on two premises: (1) a secular deterioration in the international price of raw materials and commodities – the region’s main export commodities - would result, in the absence of industrialization in the developing economies, in a widening of the gap between rich and poor countries, and (2) to industrialize, the smaller countries required temporary assistance in the form of protection for the newly emerging manufacturing sector. This reasoning was closely related to the infant industry argument for protection.

Prebisch's position developed as a criticism of outward orientation, which he considered incapable of permitting the full development of the Latin American countries. He argued that development required industrialization through import substitution and that this approach could be "stimulated by moderate and selective protection policy" (Prebisch, 1984). Eventually, however, the degree of protection became anything but moderate, as more and more sectors required additional tariffs and other types of government support to continue facing foreign competition (Balassa, 1982). An array of restrictions, controls and often contradictory regulations were created, and lobbying developed as a way to secure rent for the domestic producers.

As a consequence, many of the industries created under the import-substitution strategy were quite inefficient. Krueger (1981) and Balassa (1982) found that this inward-looking strategy generated rent-seeking activities and resulted in the use of highly capital-intensive techniques, which hampered the creation of employment throughout the region.

The import-substitution strategy discouraged export activities through two main channels: (1) import tariffs and quantitative restrictions (QRs) increased the cost of imported intermediate materials and capital goods used in the production of exportables, reducing their effective rate of protection; in fact, many agricultural products had a negative protection of their value added; (2) protectionist measures resulted in real exchange rate overvaluation that reduced the degree of competitiveness of exports.

Paradoxically, policies that were supposed to reduce Latin America's dependency on the worldwide business cycle ended up creating a highly vulnerable structure where the sources of foreign exchange were concentrated in a few export products intensive in natural resources, while imports were concentrated in a relatively small group of essential goods.

In the late 1960s and 1970s, some developing countries, among which Brazil, tried to expand manufacturing exports with the aid of an aggressive industrial

policy based on export subsidies, tax allowances, and subsidized credit to selected industries. This industrial policy was supplemented by a crawling peg exchange rate system aimed at avoiding exchange rate overvaluation.

In terms of income distribution, the protection system largely benefited local industrialists, particularly those able to obtain import licenses and concessions, and urban workers, but at the cost of reducing the income of rural workers.

In summary, although protectionist policies succeeded in creating an industrial sector in Latin America, this goal was achieved at a high cost. Exports were discouraged, the exchange rate became overvalued, employment creation lagged behind, and massive amounts of resources, including skilled human resources, were withdrawn from the productive sphere and devoted to lobbying for favorable treatment.

Even in those countries that tried to expand exports, the foreign exchange constraint was maintained. As a consequence, during the 1970s virtually every country in the region resorted to heavy foreign borrowing. The rapid accumulation of debt made these economies particularly vulnerable, as they learned from the debt crisis of 1982.



## **2 Theoretical Aspects: The Gains from Trade**

### **2.1 Trade and Productivity Growth**

There is a growing consensus both in academic and policy circles that economies that are more open to international trade have higher rates of growth, due to both higher investment and greater gains in factor productivity. Along with faster growth rates, trade openness should bring about industrial transformation and changes in the structure of employment.

The empirical evidence indicates that the estimated relationship between economic growth and liberalization of the trade regime is positive and significant. As for the direction of causality, the evidence suggests a “virtuous circle”, by which liberalization produces growth improvements and vice-versa (Harrison, 1996). Liberalization has positive effects over growth through the increase of domestic investment and through efficiency gains.

The literature points out five channels through which trade affects economic growth. First, trade leads to higher specialization and, thus, to gains in total factor productivity (TFP). Second, it expands potential markets, which allows domestic firms to take advantage of economies of scale, thus increasing their TFP. Third, trade diffuses both technological innovations and improved managerial practices through stronger interaction with foreign firms and markets. Fourth, freer trade tends to lessen anti-competitive practices of domestic firms. Finally, trade

liberalization reduces the incentives for firms to conduct rent-seeking activities that are mostly unproductive.

Neo-classical trade theory demonstrates the gains from international trade using the tools of the production-possibilities frontier and the community's indifference curve. In autarky, a country reaches its highest indifference curve when the marginal rate of transformation (MRT) in production equals the marginal rate of substitution (MRS) in consumption. When the country is opened to international trade, it faces a new set of relative prices. The adjustment by producers and consumers to this new set of prices and the resulting trade enables the country to attain a higher indifference curve.

In other words, a country will gain from trade if the terms of trade differ from its own relative prices in autarky. The country gains by expanding production of and exporting the commodity that is relatively more valuable in the foreign market and reducing the production of and importing the good that is relatively less expensive in the foreign market.

The Heckscher-Ohlin (H-O) theorem, built on a rigorous set of assumptions (two countries, two homogeneous goods which have different factor intensities, two homogeneous factors of production, mobility of factors, same technology, tastes and preferences, same production functions, perfect competition, constant returns of scale, no transportation costs), demonstrates that differences in relative factor endowments are sufficient to generate a basis for trade, even if there are no differences in technology or demand conditions. The model allows one to predict the pattern of trade based on initial factor endowment and also to demonstrate that trade leads to an equalization of factor prices between trading countries. The underlying idea is that in equilibrium, with both countries facing the same relative product prices, the same technology and constant returns of scale, relative costs will be equalized. The only way this can happen is if factor prices are equalized. Trade in final goods essentially substitutes for movement of factors between

countries, leading to an increase in the price of the abundant factor and a decrease in the price of the scarce factor among participant countries until relative prices are equal.

Subsequently, several theoretical qualifications to the Heckscher-Ohlin model were made, regarding the role of tastes, factor intensity of products, transportation costs, imperfect competition and factor immobility. These qualifications reflect the limitations imposed by the assumptions of the model, but they don't destroy the basic link between relative factor abundance and the pattern of trade.

The H-O model is static, and assumes that the production possibilities frontier (PPF) for a country remains fixed. However, to analyze the link between trade and growth it is important to bear in mind that growth comes about by means of changes in technology or through acquisition of additional resources (factor growth).

Growth in output potential is represented by outward shifts in the country's PPF, which enables the country to reach a higher level of real income. The welfare effects of factor growth and technological change are positive in small-country cases with the exception of population growth, which leads to a fall in per capita income. The large-country case shows the implications of growth that yields changes in the international terms of trade. Output growth in the export good generates negative terms-of-trade effects that offset some of the gains from growth.

## 2.2 Protectionism and Macroeconomic Issues

Let us suppose that in an economy facing current account deficit the government decides to protect some sectors. Granting protection reduces the demand for foreign currency, and, unless capital flows change, causes exchange-rate appreciation. This appreciation will in due course tend to increase imports and reduce exports, so that finally the reduction of imports in the sectors where there is protection will be offset by increases of imports in other sectors and reduction of exports. The current account may not change at all.

If there is no official intervention in the foreign exchange market, the current account can only improve if there are increased net capital inflows, since the ex post current account deficit must be equal to the capital and financial account surplus.

This issue can be better understood if we think of the national income accounts identity between gross domestic product (GDP) and expenditures:

$$(2.1) \quad C + I + G + (X-M) = \text{GDP} = C + S + T$$

This identity states that consumption (C), investment (I), public sector expenditure (G) and the current account surplus (X – M) equal GDP, which can be disposed of through consumption, private savings (S) and taxes (T). Equation 2.1 can be rewritten as

$$(2.2) \quad S + (T-G) - I = (X - M)$$

which shows that, in an open economy, the difference between a country's total savings (private,  $S$ , plus the government saving,  $T - G$ ) and the country's investment equals the current account balance. If there is a current account deficit ( $X - M < 0$ ) the country's savings are lower than the domestic investment, hence the country will have to rely on capital inflow (foreign investment), with the capital account inflow being equal to the current account deficit.

In the case of Brazil in the early of 1980s, the country was faced with a radical reversal in its capital account situation because of the increase in world interest rates and higher international oil prices. The country had to adjust internally. One of the ways of achieving this goal was to increase the government saving, which means that the government had to decrease its fiscal deficit. Brazil's failure to reduce its fiscal disequilibrium made the internal consequences of the external adjustment more costly, because the burden of the adjustment was forced on investment, and the result was the so-called lost decade.

### **2.3 Economic Consequences of Protectionism in Brazil**

The high degree of protection granted to manufacturing in Brazil resulted in discrimination against exports, misallocation of resources, inefficient investment and deterioration in the income distribution.

The discouragement of export activities took place through two different channels. First, import tariffs, quotas and prohibitions increased the cost of imported intermediate materials and capital goods used to produce exportables, thus reducing their effective rate of protection. Second, protectionist policies resulted, after 1979, in overvaluation of the exchange rate, which reduced the degree of competitiveness of exports.

Besides discouraging exports, Brazilian trade policies created an inefficient manufacturing sector, with the inexistence of foreign competition in many sectors. Protection being so profitable, lobbyist and interest groups tried to receive further protection, thus making the structure of protection more uneven.

Protectionist policies had also effects on labor markets. In particular, the protection of capital-intensive industries affected the country's ability to generate employment. Various studies show that in developing countries more-open trade regimes result in higher employment and in a more even distribution of income than protectionist regimes. Krueger (1983), after analyzing the experience of ten countries, concludes that exportable good industries tend to be significantly more

labor intensive than import-competing sectors. Moreover, employment tends to grow faster in outward-oriented economies.

In the late sixties Brazil embarked on an export-promotion program, which relied on heavy and selective subsidies and did not reduce the level of protection, but was not successful in transforming the export sector in an engine of growth. Edwards (1995) presents a number of possible reasons for a failure of such programs in Latin America. First, decades of protectionism had generated relatively high wages that precluded Latin America from competing in world markets. Second, the volatility of exchange rates discouraged exports and, more important, private investments in tradable sectors. Macro-instability reduces the credibility of an export-promotion program. A third explanation for the limited success of export promotion is related to rent-seeking activities. Selective interventions create opportunities for appropriating large rents. In many cases, the attractiveness of these programs is related to rent seeking, and not the export activity per se. This suggests that a fundamental problem of Latin America's – and the Brazilian one is no exception – is that they were not closely linked either to results or to performance.

In terms of income distribution, the protective system generated large benefits to local industrialists – in particular, those able to obtain import licenses and concessions – and to urban workers. This was achieved at the cost of depressing the earnings of rural workers.

## **2.4 From Protectionist Trade Policies to Trade Liberalization**

The main objective of trade liberalization programs is to reverse the negative consequences of protectionism, specially its anti-export bias. According to basic theory, trade liberalization reallocates resources according to comparative advantage, reduces waste, and lowers the price of imported goods. Besides, to the extent that the new trade regime is more transparent, lobbying activities are greatly reduced, releasing skilled work from unproductive jobs.

According to traditional international trade theory, once negative effective rates of protection and overvalued exchange rates are eliminated, exports grow rapidly and become more diversified.

Because of the importance placed on reducing the anti-export bias, exchange rate policy plays an important role during a trade liberalization effort. Maintaining a competitive real exchange rate is important for avoiding an explosion in the growth of imports, and also because the expansion of exports usually takes some time.

Two important problems relating trade liberalization is its speed and the sequencing of the reform. As for the speed, a gradual reform has the advantage of giving firms time to restructure their productive processes and, thus, may result in lower costs in terms of unemployment and bankruptcies. The disadvantage is that a slower reform tends to lack credibility and allows firms negatively affected by it to lobby against the reduction in the tariffs. Those who favor a quick reform do so based on studies like Michaely et al. (1991), in which, after studying liberalization



episodes in nineteen countries, the authors concluded that even in the short run the costs of reform can be small.

As for the sequencing of the reform, most analysts agree that trade liberalization should precede liberalization of the capital account. The central issue is that liberalizing the capital account, under some conditions, results in large inflows of capital and appreciation of the real exchange rate. Such an appreciation sends a wrong signal to the real sector, frustrating the reallocation of the resources called for by the reform.

### **3 Brazilian Trade Regime and Trade Performance in the 1980s: an Overview**

#### **3.1 Evolution of the Trade Regime**

It is possible to distinguish four phases of economic policy in Brazil since the government engaged in an effort of rapid industrialization (Silber, 1997). The first phase, extending from World War II to the mid-1960s, was characterized by high tariff protection that isolated the domestic market from international competition and made rapid economic growth possible, without concern for the performance of the export sector.

In the second phase, extending from the mid-1960s to 1974, there was a change in trade policy towards increasing the participation of domestic manufactures in the international market. Trade policy explicitly defined priority sectors and also expanded the import substitution process in intermediate and capital good sectors.

During the third phase, beginning with the first oil shock and lasting until 1988, the Import Tax Law was changed, and taxes up to 100 percent were introduced in 1974 and 1975 for a large number of products. This taxation provided further nominal protection to consumer goods, in a time when intermediate and capital good sectors were industrial development priorities. To circumvent such a disarticulation between tariff and industrial policies, an extensive system of import tariff reductions was created.

The fourth phase, which began in 1988 with a tariff reform, will be discussed in sub-section 4.1.

Summing up, in the 1980s Brazilian commercial regime displayed three basic features. First, despite tariff cuts implemented in the mid-1960s, there was a highly restrictive import regime based on discretionary import licensing and used in support of industrial policies. The stringency with which each of these import controls were exerted varied depending upon the balance of payments position.

As a consequence of the widespread use of QRs, relatively high Brazilian tariffs acted as a secondary line of defense within the Brazilian protection system. The import of consumer goods was compressed by the low priority conferred to them in issuing import licenses or else faced outright prohibition, while intermediate and capital goods had to jump the extremely high additional barrier of similarity inspection (the “Law of Similar Goods”).

By generating an import structure basically composed of noncompetitive goods, the system created an important distributive distortion: importing firms often applied for tariff exemptions or reductions under “special import regimes” for priority imports, which were granted either by specific legislation or on an *ad hoc* basis by the Tariff Commission (CPA). As a result, nearly 67 percent of all Brazilian imports entered the country in 1985 with tariff exemptions or reductions, a situation that changed little up until 1990. As a consequence of the proliferation of “special regimes”, there was a large difference between legal tariffs and those effectively practiced, i.e., the “true” levels, meaning the revenues of import taxes as a percentage of the value of imports (see Table 3.1)

**Table 3.1 Brazilian Legal and “True” Rates of Protection, 1984**  
(Percent)

Sector	Nominal		Effective	
	Legal	True	Legal	True
All Manufacturing	90.0	19.1	165.6	34.5
Light Manufacturing	130.5	10.1	246.1	35.2
Food	84.2	16.9	212.3	43.4
Textiles	176.9	3.3	268.4	1.1
Heavy Industry	71.9	3.9	114.4	32.4
Paper	82.2	39.4	212.9	110.9
Chemicals	34.2	11.5	95.2	24.6
Non-metallic Minerals	98.7	29.5	182.1	41.5
Metallurgy	72.8	12.7	91.1	24.0

High Technology	98.5	8.5	137.1	14.1
Machinery	81.2	14.9	121.3	19.1
Transport Equipment	115.9	2.9	217.7	-9.6
Agriculture	57.3	22.6	63.3	26.7

Source: Fritsch and Franco (1989a) using raw data from Braga et al. (1988)

The second major feature of Brazilian trade policy during this period was its very active export promotion policy, including subsidies and import duties exemptions. The basic role of these export incentives was to offset the anti-export bias created by the restrictive import regime in specific industries, in order to generate a nearly neutral regime. This situation – high protection as a rule and export subsidies as an exception for exporters – is contrary to the usual policy prescription calling for a devaluation and reduction of export subsidies and tariffs. The main obstacle of such measures was the inflationary impact of real currency devaluations, a concern that the experiences of the 1980s reinforced.

A third element in the Brazilian trade regime was the crawling peg, implemented in 1968, which guaranteed real exchange rate stability until 1979 and is an important element to explain Brazil's export diversification and growth during the 1970s (see Table 3.2).

After the second oil shock, two large devaluations, of 30 percent each, were made in late 1979 and early 1983. While the first devaluation quickly eroded in real terms, the second one was followed by relative price stability at a devalued level when compared with the 1970s. This lasted until 1986. From then on, however, with the acceleration of inflation towards hyperinflationary levels, exchange rate management became increasingly geared to the stabilization objective, which led to an appreciating exchange rate.

**Table 3.2 Real Effective Exchange Rate and Relative Export Prices, 1974-90**  
(1985=100)

Year	Real Effective Exchange Rate	Relative Export Prices
1974	85.86	68.42
1975	87.46	71.96
1976	87.43	65.50
1977	89.45	55.90
1978	94.25	62.45
1979	104.55	63.99
1980	114.12	67.11
1981	90.87	75.71
1982	86.70	82.79
1983	103.21	90.95
1984	96.60	92.25
1985	100.00	100.00
1986	103.37	91.72
1987	103.75	92.80
1988	93.07	86.53
1989	71.63	80.36
1990	64.25	79.46

Source: IMF/IFS and Brazilian Trade Statistics

### 3.2 Macroeconomic Influences on Trade Performance

Between 1975 and 1990, Brazil's trade performance was driven by the imperatives of adjustment to adverse external shocks. During the early 1980s, economic policy was focused on foreign debt and the balance of payments. The goal was to maintain an indispensable volume of imports while promoting major shifts in trade patterns and reducing the burden of foreign debt. Table 3.3 presents the year-by-year evolution of all the main variables from 1980 onwards. Starting in 1981, export promotion was combined with intensified import substitution and compression to produce large annual trade surpluses, in the range of US\$ 10 billion to US\$20 billion, for more than a decade. While exports grew at above 7 percent per annum on average, imports fell markedly in real terms, especially during the first half of the 1980s.

**Table 3.3 Balance of International Payments, 1980-1989<sup>a</sup>**

Millions of dollars, except as indicated

Year	Exports (1)	Imports (2)	Trade Balance (3)	Services Balance (4)	Interests and Profits (5)	Current Account Balance (6)	Capital Account Balance (7)	Intern. Reserves (8)	Gross Foreign Debt (9)
1980	20,132	22,955	-2,823	-10,152	-6,621	-12,807	9,679	6,913	53,848
1981	23,293	22,091	1,202	-13,135	-9,531	-11,734	12,773	7,507	61,411
1982	20,175	19,395	780	-17,082	-11,935	-16,310	7,851	3,994	69,654
1983	21,899	15,429	6,470	-14,415	-10,313	-6,837	7,851	4,563	81,319
1984	27,005	13,219	13,089	-13,215	-10,999	45	2,103	11,995	91,091
1985	25,639	13,153	12,486	-12,877	-10,716	-242	253	11,608	95,857
1986	22,349	14,044	8,305	-13,695	-10,677	-5,304	-2,554	6,760	101,759
1987	26,224	15,051	11,173	-12,678	-9,702	-1,436	-7,108	7,458	102,555
1988	33,789	14,605	19,184	-15,103	-11,371	4,175	-746	9,140	99,285
1989	34,383	18,263	16,120	-15,331	-12,016	1,033	3,365	9,679	96,546

Sources: Banco Central do Brasil, data reported monthly

<sup>a</sup> column 6 differs from the sum of columns 3 and 4 because of unilateral transfers; the data in column 5 are included in column 4

The rapid growth in exports in the 1980s was accompanied by an important diversification towards manufactures, whose share in total exports increased substantially, specially after the second oil shock. Industrialized products accounted for more than 70 percent of total exports in 1989.

**Table 3.4 The Structure of Brazilian Exports, 1974-1989**

(in percent and billions of dollars)

Year	Value (US\$ billions)	Structure (%)		Basic (%) <sup>1</sup>
		Manufactured	Semi-manuf.	
1974	7.95	28.4	11.5	57.6
1975	8.67	29.8	9.8	58.0
1976	10.13	27.4	8.3	60.5
1977	12.12	31.7	8.9	57.1
1978	12.66	40.2	11.6	46.8
1979	15.24	43.6	12.7	42.7
1980	20.13	44.8	12.0	41.9
1981	23.29	51.0	9.4	38.0
1982	20.16	50.8	7.3	40.6
1983	21.90	51.5	8.4	38.7
1984	27.01	56.0	10.5	32.4
1985	25.64	54.9	10.8	33.3
1986	22.35	55.5	11.2	32.6
1987	26.23	56.6	12.1	30.6
1988	33.79	56.8	14.5	27.8
1989	34.41	54.2	16.9	28.9

Source: Central Bank bulletins (various issues) and Fachada da Silva (1990)

<sup>1</sup> share of coffee, iron ore and soybeans in total exports

Table 3.5 shows the evolution of the import structure, the most notable changes being the rise and fall of oil's importance, which is explained by the sharp changes in the international price of oil as well as by substantial import substitution in the early 1980s. Also remarkable is the decrease in import share of capital and intermediate goods in response to the domestic recession of the early 1980s.

**Table 3.5 The Structure of Brazilian Imports, 1974-1989**

(in percent and billions of dollars)

Year	Primary Products	Mineral extraction	Manufactured			Total Value (US\$ bi)
			Capital	Intermed.	Consumpt.	
1974	5.3	22.5	25.4	39.0	7.8 (2.1)	12.6
1975	4.5	25.5	32.5	30.5	7.0 (2.5)	12.2
1976	6.1	30.4	29.3	27.5	6.7 (1.4)	12.4
1977	4.6	33.4	26.4	28.5	7.1 (1.7)	12.0
1978	3.5	35.3	28.8	18.8	13.6 (6.7)	13.7
1979	3.7	30.1	24.3	26.9	15.0 (8.6)	18.1
1980	2.8	43.3	19.6	23.8	10.5 (6.0)	23.0
1981	2.9	50.3	18.5	18.7	9.6 (5.2)	22.1
1982	2.9	51.7	17.5	18.3	9.6 (5.2)	19.4
1983	1.6	54.4	16.9	16.0	11.1 (6.4)	15.4
1984	1.9	53.2	15.8	17.6	11.5 (6.7)	13.9
1985	1.8	46.8	19.9	19.7	11.8 (6.3)	13.1
1986	4.5	25.5	26.5	25.8	17.7 (10.4)	14.0
1987	2.5	31.4	27.6	26.0	12.5 (5.3)	15.1
1988	1.9	28.8	31.0	26.2	12.1 (2.8)	14.4
1989	2.4	24.4	27.6	28.1	17.5 (6.9)	18.3

Source: Bonelli et al. (1993) based in FUNCEX, Bulletins

Notes: Min. extract. is mainly crude oil; capital goods include mechanical, electrical and Transport equipment; intermediate goods consist of non-met. minerals, basic metals, wood, paper and pulp, leather and chemicals; consumption goods include all other sectors, the most important of which are food products (in brackets). The last column shows FOB value in 1990 dollars.

The performance of imports seems to have been influenced by a combination of the economy's cyclical behavior superimposed on the highly protectionist policies introduced in the mid-1970s, which were reinforced after the debt crisis.

The recovery in nominal imports observed in 1989-90 can, however, only be partially explained by the changes in the trade regime. Problems of supply of consumer goods (mostly cereals) associated with the Summer Plan of Stabilization, higher oil prices in 1990 and speculative purchases explained by fears of hyperinflation explain a good part of those imports. Nevertheless, part of the increase in 1989-1990 may have been due to changes in the trade regime,



namely exchange rate appreciation and a reduction of prohibited import items from over 3,000 to around 1,300.

## **4 The 1990s in Brazil: Import Liberalization in an Unstable Economy**

### **4.1 Changes in Trade Policy**

Already in 1988 a trade liberalization process began. It was a rather timid one, with the elimination of redundant tariffs, and a tariff reform, with the purpose of eliminating QRs and substituting them for tariffs. Furthermore, all the “special import regimes” with the exception of the “drawback”, the Manaus Free Trade Zone and international agreements were eliminated.

In March 1990 the newly elected Collor government announced a sweeping trade liberalization programme launched as part of a broader reform in instruments of industrial policy.

The foreign trade reform was expanded with the following objectives:

- to replace the minidevaluation system with a system of market exchange rates;
- to introduce a generalized reduction in legal tariffs until the year 1994.

This radical change in Brazil’s import policy took place at the time in which far-reaching agreements for regional integration in the Southern Cone were taking place, the United States put forward a proposal for a hemispheric Free Trade Area in the context of the Bush Initiative, and the Uruguay Round of multilateral negotiations was under way.

The measures that were undertaken from 1990 on affected both import protection and export promotion instruments. In March 1990 fiscal incentives such as income tax exemptions for export earnings along with several other subsidies and tax expenditures were abolished. At the same time, the BEFIEX import-to-export

program was terminated except for the contracts already in effect. Later, in June 1990, the government announced a new export policy, confirming the reduction of subsidies to export credit lines.

The most important changes took place, however, in the import regime. The idea was to rationalize the import regime, whereby most duty exemptions granted on an *ad hoc* basis by the Tariff Commission under “special regimes would be abolished. Then, the actual liberalization process would begin with the abolition of quantitative restrictions and their replacement by tariffs, followed by the reduction of the height and sector dispersion of the tariffs over time.

The first important step in the liberalization sequence was the abolition of a list of around 1,300 prohibited import items in May 1990, when new – and high – tariffs were created for the previously prohibited products.

A new tariff schedule, with projected yearly variations until 1994, was announced on January 1, 1991, to be effective by February 15. The structure of import tariffs was defined through criteria based on an evaluation of the productive chain, comparisons to international prices, and tariffs on inputs. Generally speaking, the methodology followed by the Tariffs Commission entailed classifying 13,500 items according to seven tariff brackets:

- (1) Zero tariff: products for which Brazil has clear comparative advantages, products not produced domestically and products with low value added and high transportation costs;
- (2) 5 percent rate: products that already paid 5 percent in 1990;
- (3) Rates between 10 and 15 percent: products using zero tariff products;
- (4) 20 percent rate: the bulk of manufactured products;
- (5) 30 percent rate: fine chemicals, wheat, biscuit, pasta, TV sets, record players, video cassettes and sound equipment;
- (6) 35 percent rate: autos, trucks and motorcycles;
- (7) 40 percent rate: computer equipment and related technology.

From 1991 to 1994 most products had a nominal tariff of 20 percent. Significant reduction in nominal tariffs took place between 1989 and 1994. The average tariff fell to approximately one-third of the tariff in place in 1989, with a similar reduction in its dispersion, making the structure more homogeneous.

**Table 4.1 The Brazilian Tariff, 1989-1994**

(Percent)

Year	Average	Mean	Standard Deviation
1989	41.0	n.a.	19.1
1990	32.2	40.0	19.6
1991	25.3	20.0	17.4
1992	21.2	20.0	14.2
1993	17.1	20.0	10.7
1994	14.2	20.0	7.9

Source: CTT/MEFP

The reform aimed at reducing not only the average tariff over time, but also the variance of tariffs. If one takes into consideration that the maximum tariff in force after the 1990 round of abolition of QRs was 105.0 percent, the extent of the tariff reduction looks quite impressive.

A nominal tariff determines consumption decisions, while an effective tariff (on the value added) determines the allocation of production. Effective tariffs per industrial sector for the period 1991-1994 are shown in Table 4.2.

**Table 4.2 Effective Protection per Industrial Sector**  
(Percent) <sup>1</sup>

Sector	Implicit	1991	1992	1993	1994
Agriculture	- 15.30	13.10	11.50	10.40	9.60
Min. Extraction	15.20	1.38	0.28	-0.29	-0.36
Non-met. Minerals	30.80	17.32	14.85	9.95	8.82
Metallurgy	44.80	27.41	23.35	19.82	16.89
Mechanics	14.00	34.71	29.65	24.09	23.06
Electrical Material	48.50	44.76	38.67	31.96	25.45
Transport Material	-9.80	72.60	56.52	45.48	39.66
Wood	35.20	10.80	10.50	10.20	10.00
Furniture	68.20	42.70	31.50	25.00	26.40
Paper and Cardboard	42.20	10.46	10.45	10.46	10.46
Rubber	92.90	44.60	34.60	22.80	15.70
Hide and Skin	23.70	13.30	11.90	10.20	8.40
Chemicals	42.40	11.35	10.00	8.58	8.22
Veter. And Pharm. Prod.	69.90	19.10	16.20	13.10	13.10
Perfumery, Soap and Candles	81.30	64.80	40.90	33.90	26.10
Plastic Products	77.80	46.13	38.47	25.53	22.44
Textile	125.60	47.40	35.21	29.23	19.21
Apparel, Footwear and Text.	164.40	55.89	44.87	32.00	23.76
Food Products	-1.30	27.51	22.26	19.16	16.43
Beverage	-6.50	108.00	89.30	51.50	24.80
Tobacco	-80.10	133.30	117.60	98.70	54.70
Publishing and Editing	1.9	1.80	9.20	8.80	8.40
Miscellaneous	84.20	43.20	35.10	27.10	20.40
Industry Average	45.10	46.70	38.80	31.00	24.60
Standard Deviation	52.50	33.20	29.60	25.60	20.90

<sup>1</sup> Average weighted by the value of production

Source: Hahn (1992), p.39

Data provided in Table 4.2 show that, as the reform progresses, the level of effective protection approaches the level of nominal protection, since there is a dramatic reduction in the variance of protection. Changes in tariffs tend to benefit certain sectors, particularly those that received minimal protection under the previous structure, and begin to enjoy a positive effective protection after the reform. Such sectors include agriculture, mineral extraction, transport materials, food, beverage and tobacco. On the other hand, sectors that received the highest levels of effective protection in the beginning of the reform are natural candidates for a reorientation of their activities and a reduction in their participation in Brazilian industry. The following sectors fall into this category: electrical material, rubber, perfumes, pharmaceuticals, plastics, textile, apparel and

footwear. For such a reorientation to take place, however, economic agents must consider the tariff reform as an irreversible change in the country's international trade regime. Furthermore, fluctuations in real exchange rates hinder the indication of a change in relative prices in favor of tradable goods.

It is true that, given Brazil's very closed industrial system, the pressure of import penetration was not expected to cause significant shifts in aggregate industrial employment levels. During 1989-1990, the average share of domestic demand in total manufacturing output was around 95 percent, against 9.5 percent of exports and only 4.5 percent of imports (Fritsch, 1992). Thus, the impact of a 20 percent rise in real imports on domestic output and employment could be countervailed by an increase of less than one percent in domestic demand.

A better assessment of the impacts of the trade liberalization process is possible if we compare nominal tariffs before, during, and after this process. Table 4.3 displays the average nominal tariff for 16 industries between for 1987, 1990 and 1997.

**Table 4.3 Average Nominal Tariffs**

Percent

Industry	Year		
	1987	1990	1997
Nonmetal Mineral Products	98.7	24.5	7.3
Metallurgy	72.8	23.7	12.8
Machinery	62.1	39.5	13.90
Electronic and Comm. Equipment	100.4	39.6	14.55
Transportation and Motor Vehicles	115.9	55.9	16.70
Paper and paper products	82.2	23.1	11.90
Rubber Products	101.7	49.6	12.80
Chemicals	34.2	13.4	8.23
Pharmaceuticals	42.2	26.0	10.00
Perfumes, soap and candles	184.4	59.2	10.00
Plastic Products	164.3	40.0	16.50
Textiles	161.6	38.8	15.80
Clothing, Fabric Products and Footwear	192.2	50.0	19.60
Food	84.2	27.4	12.15
Beverages	183.3	75.1	14.50
Tobacco	204.3	79.6	9.00
Average	117.81	41.59	12.86
Standard Deviation	56.01	19.02	3.4

Source: Pinheiro and Almeida (1994), Kume (1996), and Mercosur Common Tariffs

On average, pre-reform tariffs were almost ten times larger than in 1997. The highest tariffs were observed in consumer goods industries such as tobacco, beverages and textiles. The lowest tariffs were those on intermediate industries such as chemical and machinery. Three years later, tariffs were already only one-third of the 1987 figures, and dispersion – measured by the ratio of standard deviation to average tariff – was significantly reduced.

It is interesting to note that in 1997 consumer goods industries had still more nominal protection than intermediate and capital goods industries. Another point worth mentioning is that, due to exceptions in the Mercosur Agreement, protection on some specific sub-sectors, as for instance automobile, is still relatively high (more than 40% for most automobiles).

The behavior of the effective protection before, during and after the trade liberalization process is shown in Table 4.4.

**Table 4.4 Effective Rates of Protection**

Percent

Industry	Year		
	1987	1990	1997
Nonmetal Mineral Products	31.5	42.2	14.5
Metallurgy	59.8	23.7	12.8
Machinery	18.5	41.2	14.3
Electronic and Comm. Equipment	108.2	53.3	16.7
Transportation and Motor Vehicles	43.5	178.2	33.8
Paper and paper products	31.0	22.8	12.6
Rubber Products	125.0	67.1	14.7
Chemicals	64.9	21.5	10.3
Pharmaceuticals	52.3	36.3	9.9
Perfumes, soap and candles	96.1	76.0	26.1
Plastic Products	427.7	54.2	22.3
Textiles	53.1	50.1	21.5
Clothing, Fabric Products and Footwear	240.7	65.4	22.6
Food	32.7	33.5	15.7
Beverage	-7.6	93.0	19.9
Tobacco	-4.6	3.1	10.8
Average	85.8	54.5	17.7
Standard Deviation	105.5	38.5	6.2

Source: Pinheiro and Almeida (1994), Kume (1996), and Mercosur Common Tariffs

Effective rates of protection fell in all industries but beverage and tobacco, which had negative effective rates of protection before the reform. On average, the figures for 1997 are one-fourth of those in 1987. There is a large decrease in tariff dispersion: the standard error to average ratio fell from 1.23 to 0.35 in the period.

## 4.2 Effects of Trade Liberalization on Wage and Productivity

There are few empirical studies that try to assess the effect of the recent Brazilian trade liberalization on real variables like employment, productivity and real wages.

Ferreira and Rossi (2001) is an empirical work on the links between trade liberalization and productivity growth. Using a panel of 16 industry sectors (over 90% of the total sector production) the paper confirms the association between the former and the latter and shows that the magnitude of the impact of tariff reduction on total factor productivity and output per worker was substantial. One of the original features of the paper is to try to assess the impact of the trade liberalization by considering data in three sub-periods: before (1985-89), during (1990-1993) and after (1994-1997) the trade reform. Two measures of labor productivity are used: total work hours employed in the production and total labor force employed in production. Output was used as a proxy for value-added by industry.

The results for the annual rate of increase in labor productivity are summarized below.

**Table 4.5 Labor Productivity Annual Growth Rate**

Percent

Labor Productivity Growth Rate (Average)	1985-89	1990-93	1994-97
	0.62	5.93	7.41

Source: Ferreira and Rossi (2001)

In the sub-period 1985-89, labor productivity grew very little or declined in most sectors. Between 1990 and 1993, coinciding with the beginning of trade



liberalization, average productivity was higher. In this period, the country was undergoing a recession but output reduction was more than offset by employment reduction. Finally, the 1994-97 period is one of even faster productivity growth. Employment continued to fall but output increased in all industries.

The results for total factor productivity can be found in Table 4.6

**Table 4.6 TFP Annual Growth Rate**

Percent

Industry	Period		
	1985-89	1990-93	1994-97
Nonmetal Mineral Products	-0.49	1.66	5.58
Metallurgy	1.30	2.77	6.71
Machinery	3.02	2.96	4.41
Electronic and Comm. Equipment	-0.31	5.41	5.32
Transportation and Motor Vehicles	-6.53	1.15	5.54
Paper and paper products	-1.84	1.35	4.40
Rubber Products	-1.67	2.13	4.60
Chemicals	-4.57	1.61	8.10
Pharmaceuticals	-0.56	0.22	0.36
Perfumes, soap and candles	6,17	4.78	-0.54
Plastic Products	-1.71	-2.88	5.89
Textiles	-1.61	4.30	2.67
Clothing, Fabric Products and Footwear	-4.48	1.11	1.23
Food	-0.88	3.21	4.66
Beverage	-0.52	4.65	6.68
Tobacco	1.59	0.82	6.43
Average	-1.03	2.00	4.29

Source: Pinheiro and Almeida (1994), Kume (1996), and Mercosur Common Tariffs

It is important to observe that the increase in the growth rate of TFP and labor productivity across industries in the period is coincident with the reduction of protection to domestic industry. Data shows that the average growth rate of TFP jumped from negative in the 1985-89 period to more than 4% between 1994 and 1997. At the same time, average nominal tariffs were less than 13% of first period tariffs and effective protection was one fourth.

Ferreira and Rossi (2001) investigates the relationship between liberalization and productivity by regressing either nominal tariffs or effective protection rates on TFP or Labor Productivity Growth Rates and find a significant and robust relation, meaning that trade reform had an important impact on industrial performance. In the cross-sectional dimension, the estimations imply that the higher the protection the lower the growth rate of TFP and labor productivity of a given industry.

The estimations in this work indicate that liberalization had an important effect on industrial performance in the country.

As for the relation between trade liberalization and wages in Brazil, there is little empirical work on this issue. To analyze the Brazilian labor market performance between 1988 and 1995 Gonzaga et al. (2001) investigates whether trade liberalization explains the reduction in the ratio of skilled to unskilled labor earnings observed over this period. Using disaggregate data on tariffs, prices, wages, employment and skill intensity, the paper finds results compatible with trade liberalization playing a role in accounting for the reduction of wage inequality between 1988 and 1995, a result that is consistent with the expected outcomes of trade liberalization according to neoclassical trade theory.

Arbache and Menezes-Filho (2000) shows that the tariff reduction led to a gain in productivity, and that part of this gain was passed on to workers through increased wages. Arbache and Corseuil (2001) uses data from the manufacturing sector from 1987 to 1998 and finds evidence that the higher trade flow affected the inter-industry employment shares and wage premia. While import penetration affected primarily employment, export intensity affected primarily wage premia in a particular industry. More specifically, a 1% rise in the coefficient of import penetration caused a decrease of 0,08% in the participation of employment in a particular industry. A 1% increase in the coefficient of export intensity caused a decrease of almost 0,6% in the wage premia of that particular industry. These

results suggest that most of the losses in employment took place in the industries which were most affected by the foreign competition, those producing goods for the domestic market. Also according to Arbache and Corseuil (2001), there was an increase in the relative wages of workers of domestic goods industries, which means that there must have been an increase in its productivity. The authors also found that there was a decrease of the relative wage of workers of the export industry. Their results also suggest that export industries are producing more without hiring more workers, which indicates that there must be gains in the productivity in these industries.

Summing up, Arbache and Corseuil (2001) conclude that domestic goods industries that now face foreign competition used to be more inefficient, perhaps due to protection, and now are becoming more productive, and are sharing part of the productivity gain with their workers. On the other hand, export industries were more competitive than other industries even before trade liberalization, and used to pay high wage premia, which had to be reduced as a result of the increase of competition.

Regarding unemployment, according to Arbache and Corseuil (2001), 573,000 industrial workers lost their jobs in Brazil, in the period 1987-1998. This figure represents seven percent of industrial employment. The authors point out that such a decrease can have been caused also by structural factors, which can have no relation with the trade regime reform.

### 4.3 The behavior of the Exchange Rate

Since trade liberalization means achieving a more transparent and predictable relation between domestic and foreign prices, it depends not only on substituting NTBs for tariffs and lowering such tariffs, but also on the real exchange rate.

When the *real* became Brazil's unit of currency and means of payment in mid-1994, a floating exchange rate regime was implemented. However, due to large inflows of capital, in the form of foreign direct investment (FDI) and portfolio investment, the currency experienced a sharp appreciation of real. After several interventions aimed at halting the currency appreciation, the Central Bank adopted a narrow band, in which the currency was allowed to float. The mini-band was periodically adjusted to promote a slow depreciation. Given the narrow band width and the periodic adjustments the new currency regime could better be described as a crawling peg regime.

Due to the loss of significant seignorage revenues, which existed prior to the Real Plan, when inflation was high, the government was faced with a sizeable budget deficit. With expenditures being mandated by the Constitution, the Cardoso administration tried to eliminate the deficit through increases in taxes, such as the CPMF (provisory contribution on financial operations) and the IOF (tax on financial operations), and through constitutional reforms, such as the social security one. Those efforts were only partially successful and the Balance of Payments remained dependent on foreign capital inflows. The real showed an appreciating behavior until January 1999.

In January 1999, as a result of the decrease in foreign investment inflows, in the aftermath of the Russian Crisis, Brazil had to abandon the mini-band regime. A rules-based adjustable regime was initially adopted but was soon abandoned for a floating exchange rate regime. There was a sharp depreciation of the *real*, and the

exchange rate fluctuated until the beginning of 2001, when the exchange rate began another period of sharp depreciation as a result both of external factors (the Argentine crisis) and internal factors (the energy crisis).

#### **4.4 Minilateral Agreements as a means of pursuing Trade Liberalization**

One of the greatest innovations in Brazil's foreign economic during the 1990s has been the negotiation of the Mercosur (the Spanish abbreviation for Southern Cone Common Market), officially inaugurated in January, 1991 by Brazil, Argentina, Paraguay and Uruguay. In 1996 Chile became associated with Mercosur through a free trade arrangement; Bolivia did likewise in 1997.

Tariff and non-tariff barriers between the member countries have disappeared, with the exception of quantitative restrictions on sugar and automobile imports. Mercosur members apply a common external tariff (CET) to imports of the rest of the world, encompassing most products and ranging from zero to 20 percent. Quotas for non-Mercosur members are in effect in the automobile sector, on footwear and certain clothing items and some capital goods.

Some authors point out that regional agreements can be an alternative way, as compared to multilateralism, to pursue trade liberalization. Others emphasize the question of trade diversion, as compared to trade creation, that the existence of Mercosur implies.

The fact remains that the effect on regional trade has been far-reaching, as shown in Table 4.7. The percentage of total exports inside the Mercosur almost doubled in the period 1991-2000, increasing from 11,1% to 20,9%. Argentina has moved up from tenth position to replace Germany as Brazil's second trading partner.

While in year 1990 Argentine accounted for only 2,1% of all Brazilians exports, in 2000 Argentine was responsible for 11,3% of all Brazilians exports, being the second export market for Brazil, the first one being the U.S.A. Joint ventures and intra-industry trade changes have become a common practice between Brazilian and Argentine firms.

**Table 4.7 Total Global Exports and Percentage bound for Intra-Mercosur Trade, 1991-2000**

Year	Value (US\$ billions)	Percentage of Total Trade (%)
1991	46	11.1
1992	46	10.9
1993	50	14.0
1994	62	19.5
1995	70	20.4
1996	75	22.7
1997	84	24.9
1998	82	25.2
1999	74	20.4
2000	85	20.9

Source: BID-Intal

Nevertheless there are obstacles to Mercosur's full development. The devaluation of the real in early 1999 was a traumatic shock, raising issues about the coordination between flexible and dollarized exchange rates. Even the completion of the common external tariff, first established in the end of 1994, is proving difficult in the absence of fully coordinated macroeconomic policies.

As of the end of 1999, Mercosur could be described as a customs union, i.e. a free trade area protected by a common external tariff. The evolution from a customs union to a common market would imply the free movement of factors of production, specially capital and labor, within the Mercosur. This outcome is proving more difficult to achieve since 1999. Although since January 1999, most trade between Brazil and Argentine enjoyed duty-free status, Mercosur had a difficult year, largely reflecting bilateral trade tensions generated by Brazil's devaluation of the real and exacerbated by the group's lack of an internal safeguard mechanism. Mercosur's weak dispute resolution procedures and the growing tendency of individual Mercosur members to negotiate preferential trade arrangements with third countries also tend to weaken the group's cohesion.

As to Mercosur's breadth, Brazilian diplomats aim at the inclusion of all South America, at least in a free trade area. Beyond South America, Mercosur has negotiated a "framework agreement" with the European Union. In the words of the current Brazilian ambassador in Washington, Rubens Antônio Barbosa: "For Brazil, the success of Mercosur, both in political terms (affirmation of democracy) and in economic and commercial terms (Mercosur is already an attraction for trade and investment) provides an enlarged projection of South America in the international context and an enhancement of the country's specific gravity in the concert of nations. Brazil can take advantage of its role in the Mercosur and to try to have more access to the North American market through the Free Trade Arrangement for the Americas (FTAA).



#### **4.5 Overall Assessment of The Brazilian Trade Liberalization in the 1990s**

Edwards (1995) points out that existing historical evidence suggested that successful (in the sense of sustained) trade reforms are characterized, in the short and medium run, by the following elements:

- Exports expand at a pace that exceeds the historical rate;
- Productivity growth expands at a fast pace;
- The trade balance does not exhibit “unreasonable” deficits, otherwise the public would speculate against the domestic currency;
- The overall level of unemployment stays at a relatively low level;
- Real wages increase, at least in the medium run.

It is important to bear in mind that it is more difficult to evaluate the effects of trade liberalization when it takes place simultaneously with a price stabilization plan, and processes of privatization and deregulation of markets, as was the case of Brazil in the 1990s. This notwithstanding, we will make use of the five elements listed above to try to evaluate the Brazilian trade liberalization process.

First, Brazilian exports grew faster than its historical pace, and average values of exports reflect such a growth (see tables 3.3. and 5.1). The average of exports in 1990-99 was US\$ 42,730 millions, a figure 67,6% higher than the average for 1980-89 (US\$ 25,489 millions).

Second, as shown in tables 4.5 and 4.6, the results of Ferreira and Rossi (2001) indicate that there was an increase in average labor productivity annual growth rate, from 0.62% in 1985-89 to 7.41% in 1994-97. This paper also shows that there was an increase in average total factor productivity annual growth rate, from negative 1.03% in 1985-89 to 4.29% in 1994-97.

Third, as shown in table 4.8, Brazilian trade balance does not exhibit “unreasonable” deficits in the 1990s. Deficits did occur from 1995 onward but they were due primarily to the overvaluation of the currency and show a declining trend.

**Table 4.8 Balance of International Payments, 1989-1999<sup>a</sup>**

Millions of dollars, except as indicated

Year	Exports (1)	Imports (2)	Trade Balance (3)	Services Balance (4)	Interests and Profits (5)	Current Account Balance (6)	Capital Account Balance (7)	Intern. Reserves (8)	Gross Foreign Debt (9)
1989	34,383	18,263	16120	-15,331	-12,016	1,033	-3,648	9,679	99,285
1990	31,414	20,661	10,753	-15,369	-11,340	-3,782	-4,715	9,973	96,546
1991	31,620	21,041	10,579	-13,542	-9,286	-1,407	-4,148	9,406	92,996
1992	35,793	20,554	15,239	-11,339	-7,827	6,143	25,271	23,574	110,835
1993	38,563	25,256	13,307	-15,585	-10,111	-592	10,115	32,211	114,270
1994	43,545	33,079	10,466	-14,743	-8,821	-1,689	14,294	38,806	119,668
1995	46,506	49,858	-3,352	-18,594	-10,748	-17,972	29,359	51,840	129,313
1996	47,747	53,286	-5,539	-21,707	-12,214	-24,347	32,148	60,110	142,148
1997	52,990	61,347	-8,357	-26,897	-15,988	-33,054	25,864	52,173	163,283
1998	51,120	57,594	-6,484	-30,351	-19,129	-34,981	15,924	44,556	210,458
1999	48,006	49,212	-1,206	-25,212	-19,228	-24,375	16,552	36,342	213,585

Sources: Banco Central do Brasil, data reported monthly.

<sup>a</sup> column 6 differs from the sum of columns 3 and 4 because of unilateral transfers; the data in column 5 are included in column 4.

As for the employment, Arbache and Corseuil (2001) shows that the impact of the trade regime reform was negative on industrial employment, but it is difficult to separate losses in employment due to this process from losses due to other processes, like the price stabilization.

Regarding wages, Gonzaga et al. (2001) found that trade liberalization explains the reduction in the ratio of skilled to unskilled labor earnings in the period 1988-1995, a result that is consistent with the expected outcomes of trade liberalization according to neoclassical trade theory. Arbache and Menezes-Filho (2000) showed that the tariffs reduction led to a gain in productivity, and that part of this gain was passed on to workers through increased wages.

Summing up, if we considered only the five elements listed by Edwards (1995), we would undoubtedly say that Brazilian trade liberalization in the 1990s was successful. Interestingly enough, Edwards (1995) also points out lessons from the 1994 Mexican crisis, which, in my view, should also be taken into account in the case of Brazilian trade liberalization.

First, current account deficit should not exceed 3 percent of GDP in the long run. Since stabilization programs usually generate a private sector consumption boom, maintaining the current account under control requires a nontrivial public sector surplus. Data from tables 4.8 and 4.9 show that this is indeed a sensitive feature of Brazilian external sector: current account deficits ranged from 11 to 21 percent of GDP in the 1995-1999 period. Debt servicing and remittance of profits are responsible for the bulk of the current account deficits. In fact, high interest rates and massive inflows of capital (see table 4.10) helped Brazil sustain a situation of internal and external imbalance. The public sector's debt is increasing, partly because of the heavy reliance on short-term variable interest rates and dollar-indexed debt. Such a fiscal deficit cost cannot be sustained for a long time, and calls the attention to the needed implementation of a fiscal reform.

**Table 4.9 Main Macroeconomic Indicators for Brazil, 1989-99**

Year	GDP (millions of current dollars)	GDP, real increase (percent)	Gross Domestic Investment (% of GDP)	Domestic Savings (% of GDP) <sup>a</sup>	Inflation (% a.a.) <sup>b</sup>	Rate of Open Unemployment (%)
1989	145.5	3.3	26.9	27.1	1,783.0	3.3
1990	147.9	-4.3	20.2	18.0	1,477.0	4.3
1991	150.3	1.3	18.1	11.4	480.0	4.8
1992	152.7	-0.5	18.4	12.9	1,158.0	5.8
1993	155.0	4.9	19.3	14.6	2,708.0	5.3
1994	157.2	5.9	20.8	16.6	1,094.0	5.1
1995	159.4	4.2	20.5	20.3	14.8	4.6
1996	161.5	2.8	19.3	19.3	9.3	5.4
1997	163.7	3.2	19.9	20.8	7.5	5.7
1998	165.8	-0.1	19.9	17.4	1.7	7.6
1999	167.8	0.9	20.4	15.9	<b>1.7</b>	7.6

Sources: Gordon (2001) with data from Banco Central do Brasil, except GDP real increase, from World Bank, World Development Indicators, 2000.

<sup>a</sup>Brazil's national income accounting procedures calculate domestic savings as a residual, so that apparent fluctuations in periods of high inflation (like 1989) may not reflect the underlying savings behavior in the real economy

<sup>b</sup>IGP-DI (General Price Index – Domestic Availability), a weighted average of wholesale, retail, and construction price indexes

Furthermore, the inflow of foreign capitals is expected to decrease in the future, with the end of privatizations. The country should not rely on foreign capital inflows to finance its deficit in the current account.

**Table 4.10 Foreign Direct Investment in Brazil, 1992-99**

(US\$ Millions)

Type/Year	1992	1993	1994	1995	1996	1997	1998	1999
Inflow	1,749	1,294	2,590	5,475	10,496	18,743	28,502	31,369
Outflow	169	580	618	1,163	520	1,660	2,609	1,401
Net	1,580	714	1,972	4,313	9,976	17,083	25,893	29,968

Source: Banco Central do Brasil

Secondly, the composition of capital inflows – short-term portfolio versus long-term direct investment funds – is extremely important. Short-term portfolio flows are very sensitive to short-term changes in interest rates and other political and macroeconomic variables. Long-term direct investment funds, conversely, are less volatile and do not respond to short-term speculative factors. In fact, the liberalization of the capital account generates an increase in the volatility of capital flows, and consequently creates greater oscillations of the exchange rate, a fact that makes it even more important for the economy to have sound fundamentals.

Third, productivity gains are a fundamentally important element in the way in which the overall external sector develops. Productivity growth enhances export expansion and contributes to keeping the current account in balance. There is some evidence, however, like in Horta and Souza (2000), which suggests that Brazil has shown reduced capacity to direct its exports to the most dynamic international markets, and also that the largest market-share gains for Brazil in the period 1980-96 were concentrated in slow growth market and sectors, in which the country has well-established revealed comparative advantages. Such findings make it clear that there may be problems in generating trade surpluses in the future.

Besides, real exchange rate overvaluation and the consequent loss in external competitiveness should be avoided.

Furthermore, the structure, and specially the maturity of government debt is extremely important. Short-term debt represents a true danger under free capital mobility. In these circumstances, rumors or temporary losses in confidence can result in massive redemptions of government debt, generating serious liquidity problems. As of October 2001, US dollar-linked securities represented over 30 percent of Brazilian public debt, and securities linked to SELIC, denominated in domestic currency, represents over 60 percent of the debt, the remainder being

fixed-rate securities. As a consequence, increases in the domestic interest rate, SELIC, and devaluations of the domestic currency represent a source of concern over the rolling over of domestic public debt. This may lead to pressures on the country's risk, rendering it still more difficult to achieve and maintain external and internal balances.

Summing up, Brazilian trade reform was successful in enhancing productivity growth but the increase in exports was not as big as expected. In other words, trade liberalization was an important process but is no panacea. It was one among other badly needed reforms. There was some progress on tax reform, expenditure controls, and the reduction of social security abuses. The new Fiscal Responsibility Law applies a new degree of discipline at the state and municipal levels. However, there are still many problems to be addressed, such as the fiscal deficit. With the fiscal balance still precarious, interest rates remain too high, dampening the prospects for sustained high growth. Besides, long-term economic health calls for a higher proportion of domestically financed investment.

## 5 Concluding Remarks

Trade Policy Reform in Brazil in the 1990s can be considered a success, if we consider that:

- Average nominal tariffs fell from 41 percent in 1989 to 14 percent in 1994, the dispersion having also been reduced to a third of its initial figure;
- Effective rates of protection also were reduced;
- Empirical studies show that Brazilian trade liberalization resulted in increases in labor productivity and total productivity;
- Empirical studies show that trade liberalization contributed to the raise in the relative wage of non-skilled workers, thus helping reduce the country's income inequality.

However, if we consider the external sector as a whole and compare the figures from the beginning and the end of the 1990s, we notice that:

- Exports increased less than 50% whereas imports almost tripled;
- Interest payments and profit remittances almost doubled;
- Gross foreign debt more than doubled.

It is clear that exports are not behaving as an “engine of growth”. In fact, from 1995 on the country had trade deficits and throughout the decade, with the exception of 1992, there were also current account deficits. A large part of the current account deficit was temporarily “solved” through the inflow of FDI, but, with the decrease in privatizations, such an inflow is likely to fall.

As discussed in subsection 2.2, it all boils down to a problem of absorption. The sum of the country's consumption and investment (both private and public) surpasses domestic production, so the country has to rely on external resources in the form of foreign investment, thus causing an increase in the foreign debt.

The possible solutions to the problems listed above are:

- To foster the country's productivity growth, through structural reforms, such as greater investment in health and education, reform of the legal framework, strengthening of intellectual property rights, and a more flexible labor force;
- To attract more FDI through gains in productivity and more political and economic stability;
- To reduce the government's spending through tax reforms, reforms in the social security, etc, thus allowing for more domestically financed investment;
- To introduce reforms aimed at reducing the so-called "custo Brasil", mainly regarding ports, taxes and transportation;
- Some kind of debt renegotiation, in the sense of achieving a longer repayment period, thus diminishing pressures on the country's risk, which are related to the growing share of public debt denominated in foreign currencies and financed by high, short-term variable interest rates.

Summing up, Brazilian trade liberalization was an important step, but was only one of many reforms necessary for the country's economy to become more productive in order to overcome its sluggish growth rate and large income inequality.



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