

**TRADE LIBERALISATION AND ITS IMPACT ON THE
BRAZILIAN ECONOMY DURING THE 1990s**

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CERTIFICATE

Certified that the dissertation entitled "TRADE LIBERALISATION AND ITS IMPACT ON THE BRAZILIAN ECONOMY DURING THE 1990s" submitted by me for the degree of MASTER OF PHILOSOPHY is my bonafide work and has not been previously submitted for any other degree of this or any other university.

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We recommend that this dissertation may be placed before the examiners for evaluation

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To
Mamoni, Ma, Baba, Sandeep
and my quintessential gurus

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*“What in me is dark
Illumine, what is low raise and support;”
- Milton, Paradise Lost, Book I.*

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Uncertainty, if a problem that the discipline of economics has frequently addressed to, I would suggest, is best understood through one's own experience. Paradoxically I assume, I have been fortunate enough to be enriched with such experience, to befall as one of its worst victim. So when almost at the final stage with this dissertation, the UPS of my computer started betraying me. I was at the peak moment of completing my dissertation, and life threw before me the biggest challenge. If Prof. Chawla hadn't been there, alongwith ever encouraging Sandeep, my husband and my dearest friend, completing this dissertation could have remained a distant dream. Persons of unparalleled pragmatism, they have truly been the lamp in my darkness.

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CHAPTER I

INTRODUCTION

In the era of globalization, trade liberalization is one of the most important strategies undertaken by the developing countries to integrate their domestic economies with the world economy. Ever since the days of Adam Smith and David Ricardo¹, international trade theorists have argued that an open trade regime is crucial for overall economic development. This view has been based partly on neoclassical trade theory, which generally suggests that a country improves its welfare from trade liberalization. Further with their emphasis on static allocative efficiency, the neo-classicists have argued for free trade and neutrality and its relative incentives to import substitutes and exports. On the other hand, selective state intervention theorists have built upon the argument on picking up the winner sectors to promote exports and thereby maximize welfare.

Empirical observations show that countries, which remained highly protected for long periods of time, appear to have suffered significantly and perhaps cumulatively whereas countries, which have opened up their economies, had enhanced their economic growth. Thus liberalization proved beneficial to growth and welfare.

In the post-war years the proponents of import substitution industrialization strategy in the developing countries including Latin America, such as Raul Prebisch (1950), Gunnar Myrdal (1956), and Ragnar Nurkse (1959) argued that while 'trade as an engine of growth' in the 19th century, played an important role, in the 20th century

¹ Sodersten, Bo, and Reed, Geoffrey, International Economics (Macmillan, London), 1994

however that role has been constrained by slowdown in the growth of demand in developed countries for the exports of the developing countries, availability of substitutes and the effect of Engel's law of consumption. As a consequence, many developing countries adopted extremely protective trade policies and built high tariff walls to protect their nascent industrial sectors.

Soon developing countries, more particularly major Latin American countries such as Brazil witnessed marked dependence on imports of critical raw materials and capital goods, and given also the slowdown in the growth of the exports they encountered severe Balance of Payments (BOP) difficulties. Accent on export promotion became the creed of these countries. And with import liberalization supported by foreign capital was the cornerstone of such a strategy. However excessive dependence on foreign capital resulted into staggering debt crisis for major Latin American countries such as Argentina, Brazil and Mexico in early 1980s and soon they were under the International Monetary Fund (IMF) Structural Adjustment Programmes (SAPs) to deal with the debt crisis. One of the essential conditions of IMF package was trade liberalization, which these countries were to follow religiously. Again during the 1990s both under Washington Consensus (1989) and in the Decade of Economic Reforms (1990s) in Latin America, trade liberalization has been at the center- stage of reform agenda.

Nonetheless, the numerical modeling estimates of the impact of trade liberalization have generally found that trade liberalization increases the welfare of a country by only about one-half to one percent of GDP gains which seem very small in relation to the paradigm of free trade. Although for many years, various authors have claimed that the welfare gains from trade liberalization would be much larger if the dynamic

impact of trade liberalization were taken into account, yet no such models have been developed so far.

Trade liberalization in an economy comprises inter alia:

- a) import liberalization;
- b) reduction in the levels of tariff rate;
- c); removal of quantitative restrictions
- d) compensatory devaluation of national currency;
- e) removal of reduction of export taxes and anti-bias of trade policies.

Review of Literature

The policy analysts in USA, Western Europe and Japan and in multilateral institutions such as the World Bank, IMF, and the OECD regularly proffer advice predicated on the believe that openness generates predictable and positive consequences for growth.

They mainly belief that "More open and outward-oriented economies consistently outperform countries with restrictive trade and foreign investment regimes."

According to a study by the IMF it has been concluded, "Policies toward foreign trade are among the more important factors promoting economic growth and convergence in developing countries. "This view is widespread in the economics profession as well. Krueger, for example, judges that it is straightforward to demonstrate empirically the superior growth performance of countries with "outward-oriented" trade strategies. According to Stiglitz, "Most specifications of empirical growth regressions find that some indicator of external openness--whether trade ratios or indices of price distortions or average tariff level--is strongly associated with per capita income growth".

Throughout the 1980s the literature on openness and growth has been surveyed comprehensively in scholarly writings. This survey covered detailed multi-country analyses as well as cross-country econometric studies. Most of the cross-national

econometric research that was available up to that point focused on the relationship between exports and growth, and not on trade policy and growth. Since growth and welfare are not the same thing hence trade policies can have positive effects on welfare without affecting the rate of economic growth. Conversely, even if policies that restrict international trade were to reduce economic growth, it does not follow that they would necessarily reduce the level of welfare.

According to Dani Rodrik², trade reform cannot be a cure for all economic problems. He cautioned us that just as protection policies of developing countries in the 1950s and 1960s could not solve their development problems; free trade by itself may not be the answer to the economic crisis of the 1980s. In Rodrik's view, trade policy plays a rather asymmetric role in development: an abysmal trade regime can perhaps drive a country to economic ruin; but good trade policy cannot make a poor country rich. He warns that trade policy, at its best, may provide an enabling environment for development but it does not guarantee that entrepreneurs will take advantage of this environment.

Srinivasan and Bhagwati³ argue that the best evidence in support of the openness-growth link is that "nuanced, in-depth analyses of country experiences in major OECD, NBER, and IBRD projects during the 1960s and 1970s which have shown plausibly, and taking into account numerous country-specific factors, that trade does seem to create, even sustain, higher growth."

² Rodriguez, F and Rodrik Dani, "Trade Policy and Economic Growth: A skeptics guide to the cross-national evidence", National Bureau of economic Research, Working Paper No: 5085 (Washington DC) 1999

³ Bhagwati, J. and Srinivasan, T.N, "Outward Orientation and Development: Are Revisionists Right," Yale University Economic Growth Centre, Discussion Paper No 806, (Chicago), 1999

The systematic case studies cited by Srinivasan and Bhagwati generally concern trade liberalization in the 1960s and 1970s. David Dollar and Aart Kraay⁴ in a World Bank paper explained the relation between trade growth and poverty. Their study focuses on the effects of trade on the poor. They argue that since there is little systematic evidence of a relationship between changes in trade volumes or any other globalization indicator and changes in income share of the poorest, the increase in growth rates that accompanies expanded trade leads to proportionate increases in incomes of the poor. Further according to the indirect evidence from individual cases and from cross-country analysis supports the view that globalization leads to faster growth and poverty reduction in poor countries.

One of the important objectives of trade liberalization is to consider the linkages that exist between trade, trade policy and poverty. In a comprehensive paper on this theme, L. Alan Winters⁵ identifies several key linkages, which are reiterated in large part by Bannister and Thugge⁶. Potential links include changes in: a) the price and availability of goods; b) factor prices, income, and employment; (c) government transfers influenced by changes in revenue from trade taxes; (d) the incentive for investment and innovation, which affect long-run economic growth; (e) external shocks, in particular, changes in the terms of trade; (f) short-run risk and adjustment costs. Linkages (b) through (f) tend to be less frequently considered. A study by Levin⁷ focuses on transfers, link (c). A number of economy-wide analyses account for terms of trade effects, link (e). The factor price, income, and employment link (b) may

⁴ Dollar, D and Kraay, Aart, "Trade Growth and Poverty", Development Research Group World Bank Working paper No 2615, (Washington D.C), 2001

⁵ Winters, Alan, L. "Trade Policy and Poverty: What are the Links?" School of Social Sciences, University of Sussex, (London) February 2000

⁶ Bannister, G and K. Thugge, "International Trade and Poverty Alleviation," Finance and Development, Vol 38, No4., (Chicago) December 2001

⁷ Levin, J, "Kenya-Poverty Eradication Through Transfers" Conference on Poverty and the International Economy organized by the World Bank and Swedish Parliamentary Commission on Global Development, (Stockholm), October 2000

have the greatest relative importance of all the links between trade and poverty.

In the world of classical trade theory, income effects are key to the famous Stolper-Samuelson theorem, which relates international trade to the domestic distribution of income (Dixit and Norman). By the Heckscher-Ohlin theorem, a country has a comparative advantage in the good that intensively uses the country's relatively abundant factor. Free trade will increase the relative price of that good and so, by the Stolper-Samuelson theorem; increase the real return of the relatively abundant factor by an even larger percentage. At the same time, trade will reduce the return to the relatively scarce factor, though to a smaller degree. As a result, it can be said that changes in commodity prices due to trade liberalization magnify the resulting changes in factor prices.

Goncalves, analyzes export expansion, import liberalization and economic growth in Latin America in the context of foreign trade multipliers. A major conclusion of this paper is to avoid broad generalizations and oversimplifications concerning the relation between export expansion and output growth in Latin America. He stresses that this relationship is determined by the interaction of complex sets of structural elements and policy measures. His paper supports the argument in favor of both export expansion and import controls. Gonclaves claims his conclusion to be a critique of perceived wisdom, which advocates a generalized strategy for the region, based on export-led growth and adjustment in the context of stabilization programmes associated with trade liberalization measures.

Importance of the Proposed Study

In the light of above discussion, the choice of Brazil as a case study is significant in many ways:

Brazil's economic history has been influenced remarkably by foreign trade trends and policies. Successive cycles of export booms in such commodities as sugar, gold and diamonds, rubber, and coffee played major roles in Brazilian development before World War II. In the 1930s, the collapse of coffee prices signaled a turn inward, resulting in a nascent industrialization. Government intervention in foreign trade has a long history in Brazil, reaching back to the colonial period when Portugal forbade Brazilian trade with other nations. Following independence in 1822, Brazil opened its ports and expanded its trade with other nations, particularly Britain. Extensive government regulation of trade continued, however, with tariffs providing over half of the government's revenue before World War I. Other forms of intervention in trade included the 1906 coffee price support plan, which was a sophisticated attempt to exploit Brazil's monopolistic position in the world coffee market.

Before World War II, trade policies were used mostly as a source of revenue or as a response to specific groups such as the coffee producers, rather than as a means of achieving national economic goals. In the early 1950s, Brazil began to use trade policy in a more deliberate way to promote industrialization. The forced reduction in Brazilian imports after 1929 had resulted in the first major industrial growth in Brazil, centered in São Paulo. Heeding this apparent lesson, policy makers in the 1950s argued that measures that deliberately reduced imports would stimulate domestic production, thereby encouraging technological development and increasing employment in activities that were regarded as more "modern" than Brazil's traditional agricultural and extractive activities.

Between 1953 and 1957, Brazil attempted to use multiple exchange rates to encourage some trade transactions and discourage others. In 1957 the country instituted a broad ad valorem tariff system under Law 3,244. The new system created not only a new tariff structure but also the administrative machinery to impose or revise tariffs in accord with national development objectives and requests by domestic producers for protection. Implementation of the system heavily favored domestic producers of manufactured consumer goods, while permitting the import of capital and intermediate goods at much lower tariffs. For some goods, protection was great enough to completely eliminate competing imports from the Brazilian market.

Following the imposition of military rule in 1964, Brazil once again modified its trade policies. The new government moved quickly to eliminate some of the restrictions on Brazilian exports, and it provided special incentives for exports of manufactures. In March 1967, it significantly cut tariffs, which fell to about half their former level in a number of sectors. Brazilian imports soon increased, but this was more the result of the acceleration of economic growth after 1967 than of the tariff reforms. In succeeding decades, industrial development was fostered deliberately through restrictive trade policies, making Brazil a relatively closed economy by the mid-1960s. During the "economic miracle" between 1967 and 1973, the GDP grew at record rates. Throughout this period, trade policy continued to be relatively open in comparison with Brazilian policies before or after the economic miracle.

The steep rise in world oil prices that began in late 1973 soon ended Brazil's move toward greater trade openness. The approximate balance between imports and exports in the early 1970s became an unprecedented US\$4.7 billion deficit in 1974. Although record levels of external capital flows financed this deficit, Brazilian policy makers responded by restricting imports. In June 1974, import financing for many products

was suspended, while tariff rates on more than 900 items were doubled. Over the year, restrictions were increased further, and in 1975 the government required that imports be paid for in advance with deposits that did not earn interest or any correction for inflation. On the export side, further measures were taken to promote exports, especially for manufactures. Despite these measures, Brazil's trade balance remained in deficit for most of the 1970s.

The worsening of Brazil's external payments position in the early 1980s forced policy makers to turn to other measures to attempt to restore external balance, among them adjustment in the exchange rate, which was devalued sharply early in 1983. Controls on trade were not relaxed, however, and the cessation of voluntary lending to Brazil following the Mexican debt crisis in 1982 had significant effects on trade policy. Import controls that had been introduced in response to the worsening trade balance in 1980 were strengthened by centralization of all foreign-exchange transactions in the Central Bank. A negative list, which enumerated items whose import was suspended, was expanded considerably, and financing for imports was further restricted.

The combination of tightened import controls, real depreciation, and the fall in domestic demand induced by the restrictive macroeconomic policies of the early 1980s resulted in a sharp adjustment in Brazil's external accounts. The magnitude of the adjustment appears to have surprised even many of its proponents, both in the Brazilian government and among creditors. After 1983 the massive trade surpluses averaged more than 3 percent of GDP, compared with negative or negligible levels through most of the 1968-82 period. In 1984, as the full effects of the adjustment program were felt, exports were about double imports, and Brazil's trade surplus reached an unprecedented 6.1 percent of GDP, far exceeding the comparable shares in

other important economies such as Japan (3.5 percent of GDP) and West Germany (3.8 percent).

Most of the import controls that were used after 1982 were in place well before the cessation of voluntary external lending. One of these measures, introduced in 1980 following the worsening of the current account, was the financing requirement for specific imports. Another form of import control, much used after 1982, was the establishment of formal import programs, which were negotiated agreements between importing firms and the Department of Foreign Trade (Carteira de Comércio Exterior -Cacex). These agreements in effect turned the import decision into a process that depended more on administrative and political considerations than on economic merit. The high degree of administrative control that these agreements gave to Cacex created problems, because middle-level trade officials acquired extensive control over the fortunes of an enterprise through their ability to approve particular trade transactions.

By 1984 it was clear that the successful external adjustment had a domestic price, as inflation accelerated to more than 200 percent at annual rates. Trade policy consequently began to be viewed as a potential instrument for internal stabilization, with some import liberalization viewed as a potential contributor to reduced inflation.

In late 1984, a number of the direct controls on imports were cut back, and the number of products on the negative list was reduced substantially. Import financing requirements were also relaxed through exemptions, and tariff surcharges were replaced by smaller additions to the legal tariff. On the administrative side, the Cacex policy of import restrictions for balance of payments purposes was reduced.

In February 1986, following several months in which the prices accelerated at an average of more than 500 percent, the Sarney government decreed the now infamous

Cruzado Plan. Although the plan was presented as a definitive program to de-index the economy and wipe out inflation, its main thrust was to freeze prices. Wages were not frozen and in fact were increased by 8 percent when the plan was announced. Foreign economic policy in the plan consisted primarily of fixing the exchange rate, and no trade policy changes were included in the plan.

The combination of increased domestic real income, a fixed nominal exchange rate, and a fall in nominal interest rates soon produced a sharp increase in excess demand. In sectors less affected by price controls, such as clothing or used automobiles, prices rose sharply. The effects on the trade balance were apparent within several months after the plan was decreed. The value of monthly exports fell by about 40 percent between March and November 1986, and imports rose rapidly beginning in May. For the year, exports fell by 12.7 percent from 1985 levels, and imports increased by 5.7 percent. Brazil's external payments problems, which had appeared to be largely resolved by the record trade balances after 1983, emerged once again, as the trade balance fell from US\$12.5 billion in 1985 to US\$8.3 billion in 1986.

The policy response to the worsening trade balance consisted of a small 1.8 percent devaluation in October 1986, accompanied by administrative tightening of import controls. In early 1987, the negative list was once again increased, and some of the loss in exchange-rate competitiveness was regained with nominal devaluations of the cruzado by 7.8 percent and 8.7 percent in May and June of 1987.

Brazil's second price-stabilization attempt, popularly known as the Bresser Plan, was announced by the new minister of finance, Luiz Carlos Bresser Pereira, in June 1987. In contrast to the ill-fated Cruzado Plan, the Bresser Plan did not attempt to use external economic policy as an instrument for internal stabilization. Brazil returned to its earlier and generally successful "crawling-peg" policy, which consisted of frequent

small devaluations roughly in line with domestic inflation. The trade balance improved with the fall in domestic demand resulting from the Bresser Plan, and a current-account balance was attained by the end of 1987.

The improving external payments situation permitted some modest liberalization, beginning with a reduction of the negative list in September 1987. Import financing requirements were once again relaxed, and in late 1988 Cacex announced an expansion of import program levels for 1989. The 1988 reforms also simplified the existing tariff system. Average rates were lowered from over 50 percent to about 40 percent. Moreover, the dispersion or variability of rates was reduced; the highest tariffs were brought down from 105 to 85 percent, and the number of different rates was reduced from twenty-nine to eighteen. The reforms further simplified the tariff system by consolidating the rules covering import transactions, reducing the number of agencies directly involved in the approval of trade transactions, and establishing greater automaticity in the approval process.

The contrast between the favorable external payments situation and Brazil's internal deficit became even more marked in 1988, as export value increased to record levels. The favorable external situation permitted a continuation of import liberalization. In August 1988, Cacex permitted firms to exceed considerably their programmed imports of capital and intermediate goods. Despite this modest relaxation of import policy, there was no noticeable increase in total imports, which actually fell slightly in 1988 from their 1987 level.

In January 1989, the government announced the Summer Plan, which temporarily froze wages and the exchange rate. Despite the announcement of further fiscal tightening, expenditures declined little and the budget deficit worsened as a result of freezing prices for public-sector services. By mid-1989 most other prices were rising

at more than 30 percent per month, ending the year with a monthly rate of about 50 percent. Imports began to increase significantly in mid-1989, and Brazil's 1989 trade surplus was US\$16.1 billion, well below the record US\$19.2 billion of the preceding year. Although some of the increase in the level of imports may be attributable to the modest loosening of some import controls in the preceding year, major factors behind the worsening trade balance were the recovery of industrial activity and increasing overvaluation of the new cruzado (cruzado novo). In late 1989, the Customs Policy Council (Conselho para Política Aduaneira--CPA) issued Resolution 1,666, which further cut tariffs. The effect of this change was to reduce the average legal tariff from 41 to 35.5 percent. Many of the changes occurred in sectors that had formerly enjoyed high levels of protection, among them electrical equipment, some capital goods, and chemicals.

At the end of the Sarney government, inflation rates were at the threshold of hyperinflation, with the monthly rates in the first two months of 1990 at over 70 percent. Although the trade balance had fallen to about a third of the levels of the preceding year, Brazilian policy makers were clearly focused on internal stabilization; trade policy reform was a recognized but secondary goal.

Collor de Mello succeeded Sarney in March 1990. During the election campaign, Collor de Mello had successfully portrayed himself as an opponent of an intrusive, interventionist bureaucracy. His rhetoric, which included attacks on corruption and highly paid officials (*marajás*), emphasized deregulation and greater openness to world markets. The consequences of this political and ideological change for Brazilian trade policy were not long in coming. One of Collor de Mello's early moves was to abolish Cacex, by that time the subject of widespread criticism and frequent allegations of corruption by the business community. The Technical Coordinating

Office for Trade (Coordenadoria Técnica de Intercâmbio Comercial--CTIC), a slimmer and less powerful agency under the Ministry of Economy, Finance, and Planning, took over the Cacex's functions.

Although import licenses were not abolished, their approval became a relatively routine operation, and by 1991 most licenses were being issued within five working days. The CTIC became primarily a reporting and registration agency, which had little of the discretionary power formerly exercised by Cacex. The former CPA, which had been far overshadowed by Cacex, was replaced by an agency coequal with the CTIC, the Technical Coordinating Office for Tariffs (Coordenadoria Técnica de Tarifas--CTT). With the shift in emphasis in trade policy from discretionary administrative control to the automaticity of published tariffs, many of them limited by Brazil's treaty commitments, the CTT's role in formulating import policy became significantly greater than the CPA's had been.

Early in 1991, the Collor de Mello government announced a series of tariff reductions to be phased in over the 1991-94 period. These were among the most far-reaching and significant reductions in Brazilian trade protection in several decades. Earlier tariff reductions often had been largely cosmetic, only reducing rates that were prohibitive to high levels that still barred many imports. The 1991 reforms went much further, and in many sectors reduced rates to about a third of their level in the early 1980s. Equally important, the reforms reduced the wide variability or dispersion of tariff rates that were once characteristic of Brazilian trade policy. The overall trend in Brazilian trade policy is clear. By the mid-1990s, Brazil had become a much more open economy than it had been a decade earlier.

Brazil with a gross domestic product (GDP) of more than US\$650 billion in 2000 is one of the largest economies in Latin America and the 10th largest in the world. GDP

growth was approximately 3 percent in 1996, down from 4.2 percent in 1995 and 5.7 percent in 1994 but still in welcome contrast to negative real growth in 1992 (-0.9 percent).

The process of economic liberalization initiated in 1990 and further accelerated in 1994 has produced significant changes in Brazil's trade regime, resulting in a more open and competitive economy. Imports have increased as a result of generally lower tariffs and reduced non-tariff barriers. Imports are composed of a wide range of industrial, agricultural and consumer goods.

Despite some restrictive measures adopted during 1996 and 1997 to slowdown mounting trade deficits, access to Brazilian market in a significant number of sectors is generally good, and most markets are characterized by competition and participation by foreign firms through imports, local production and joint ventures.

The Brazilian government is emphasizing economic opportunities for the private sector through privatization, deregulation, and the removal of impediments to competition.

Objectives of the study

The major objectives of the proposed study are as follows:

- i) To analyse the evolving pattern of trade liberalization in Brazil during 1990s with particular reference to lowering of tariff rates; removal of non- tariff barriers (NTBs); import liberalization; devaluation vs. subsidies in promoting exports and significantly neutrality of incentives in the context of export subsidies and exportable.

- ii) To delineate the effects of trade liberalization measures on economic growth in terms of export - import volume
- iii) To examine the impact of trade liberalization on income of different sectors of the economy.

Hypothesis

A plausible hypothesis to be tested empirically is that trade liberalization has led to the development of the Brazilian economy

Methodology

The study is based on secondary data, and focuses mainly on the analysis of trade liberalization measures announced by the Brazilian government during 1990s. The impact of trade liberalization measures on domestic output is quantitatively evaluated from the Input –Output table of the Brazilian economy. The trend behaviour of exports, imports, and balance of payment (BOP).is measured from the table. A modest attempt is made to develop a SAM multiplier from the Brazilian the Social Accounting Matrix of the year 1996. This enables to look into the distributional effect of trade liberalization in the economy.

CHAPTER II

KEY FEATURES OF THE BRAZILIAN ECONOMY: 1970s to 1990s

Unarguably the Brazilian economy experienced remarkable economic growth for most part of 20th century but it was accompanied by high cost of social inequality. Even after the 1968-74 miraculous growth of 10 percent per annum, income inequality remained quite pronounced. The economy entered a period of stagflation from the beginning of 1980s. This can be explained by two factors. Firstly, the exhaustion of the growth strategy based on import- substitution industrialization and secondly, by the deep financial crisis which emerged after the external debt problem.

The Brazilian Economy and its ISI Phase

Brazilian economy had a remarkable growth record during 1930-1980, achieved one of the highest rates of growth in the world economy. During this period Gross Domestic Product (GDP) grew at an average annual rate of 6.2 percent, while real GDP per capita increased at an annual rate of 3.6 per cent. The average growth rate rose progressively in each successive ten-year period. The first set back occurred during the 1960s when the average growth rate dropped back to 5.9 percent, but in the following decade (1970s) the Brazilian economy had its best performance in this century.

During six-decades (1930-1980), the Brazilian economy adopted the import – substitution industrialization (ISI) strategy except for a brief period of 1968-74

characterised by export-led growth. This strategy started to take shape in the 1930s, when the Great Depression affected Brazil's import capacity, due to a fall in export earnings resulting from the plunge in the price of coffee, the main product exported by Brazil. In the Post-War years import- substitution industrialization began in Brazil. During the 1950s and 1960s, the country started production of durable goods, and in the second half of the 1970s the whole cycle was completed when priority was given to substitution of imports of basic raw materials and capital goods.¹

The ISI strategy encompassed the following policy instruments: i) very high tariffs and quantitative restrictions on foreign trade, as well as import licensing and foreign exchange restrictions; ii) exemption from taxes and tariffs, and even tax credits, for the import of capital goods by selected industries; iii) long-term credit at low interest rates (in some cases even negative real rates of interest) offered by the National Economic Development Bank; iv) direct intervention through state owned enterprises (SOEs) in the steel, electricity, telecommunications, oil, petrochemical and other sectors ; v) fiscal incentives for direct foreign investments; and vi) fiscal and credit incentives to promote exports following the balance of payments crisis in the first half of the 1960s.

The ISI strategy transformed the structure of the Brazilian economy. It changed the sectoral share in the GDP growth rate. In 1950, the share of the agricultural sector in GDP growth was 25.1 percent; by 1990 this share fell to 11.5 percent. However the share of the industrial sector increased from 24.9 percent in 1950 to 42.1 percent in 1990. This implies that during this period there was a massive shift of labour force from rural to urban area. The percentage of labour force working in the agricultural

¹ Fernando de Holanda Barbosa, " Economic Development the Brazilian Experience", Development Strategies in East Asia and Latin America ed; Akio Hosono and Neantro Saavedra-Rivano ,(Mac Millan,London) 1998

sector declined from 59.9 percent in 1950 to 22.8 percent in 1990. In sharp contrast, the proportion of labour force working either in industry or in the services sector rose from 40.1 percent to 77.2 percent.

Import substitution in Brazil was a strategy of macroeconomic adjustment. The greatest paradox of the import-substitution industrialization strategy is that it was adopted to escape the shortage of the foreign exchange but that ultimately increased the vulnerability of external purchasing power. The overvaluation of the exchange rates produced a negative effect on future exports. At the beginning, it was possible to tax the agricultural

sector because supply was inelastic in the short run, but afterwards producers adjusted to smaller profitability through lower production. Since primary products were exported, this decline in the production meant stagnation in exports. Thus the model could not be endured in Brazil. It brought new distortions and failed adequately to provide mechanisms to adjust fully to them. Those distortions turned out in the end to prevent the economy from making progress. First, there was the ever-increasing aggregate disequilibrium in the balance of payments and second, there was the growing sectoral imbalance that characterized the economy. Finally, the growing rate of inflation became more troublesome for the economy.

Moreover, import substitution industrialization produced an increased dependency on imports. With increased domestic production of former imports, reliance on the intermediate and capital goods shipped from abroad became even greater. An interruption in their supply inevitably translated into negative effects on domestic production. This problem was resolved by increased reliance on foreign investment. Imported capital compensated for stagnant export receipts. Additionally, it moved the economy rapidly into the production of consumer durables, and finally even

automobiles, enabling the diversification to continue longer than was possible otherwise. The importance of foreign participation was an unexpected consequence of a strategy that was supposed to yield greater independence from international markets.

This external difficulty was matched by an increasing internal problem of sectoral imbalances. Import substitution industrialization strategy led to a massive migration of labour from rural area to the urban area, which put a pressure on urban resource base. The production of foodstuffs did not keep pace with the expansion of the urban population. Agricultural prices, even those for the domestic market, were held down to ensure an improvement in real incomes, as cities grew larger. The industrial sector could not absorb the rising population as the general population increased and internal migration swelled.

Finally, there was the important fiscal imbalance that resulted from implementation of the ISI strategy. When real resources that had come from the agricultural sector began to disappear, the state was called upon to provide the subsidies necessary for the expanding industrial activities. One of its major sources was protection, emanating from both tariff and nontariff sources. But the broader access to public revenue was not easy to secure. At the same time, government expenditure was rapidly increasing to meet the new needs of an emerging urban industrial society. Larger expenditure was needed to ensure continuing employment opportunities within the governmental sector. The fiscal deficit reflected the growing disparity between burgeoning commitments and the resources available to meet them.

Growth Obsession: 1960s and 1970s

Military came to power in Brazil in the year 1964 with an objective to revive the economy from recession. The Brazilian economy moved from a phase of inward-oriented development strategy during the 1950s to a phase of outward-oriented development strategy in the late 1960s and early 1970s. The development strategy moved from protectionism toward an export-led economy; from nationalism to internationalism². This path of development had three essential components: i) external markets became an important source to overcome the domestic demand constraint ii) foreign capital provided the needed resources and technology and iii) repressive wage regime for the working class at the expense of massive corporate profits and high salaries for managerial and technical elites. This strategy had in-built limitations despite the upward movement of all the economic variables³. GDP growth rate averaged 10 percent per annum during the period 1968-74. Industrial growth rate averaged around 15 percent. Exports increased at the rate of 20 percent per annum and imports at 25 percent during 1965-74. The net inflow of capital also shows an increasing trend during 1968-74. This helped to offset the deficits in the current account and build up foreign exchange reserves to the tune of \$6 billion at the end of 1973. Another remarkable achievement of this period was that inflation was checked from a high level of 100 percent in 1964 to 15 percent in 1973.

According to some analysts, the Brazilian high growth during this period was a product of fortuitous circumstances in the world economy. As this period synchronized with world boom conditions, the Brazilian policy makers' time bound

² R.L Chawla, "Military and Economic Development: A Case Study of Brazil During 1964-84," IDS Journal (New Delhi) Vol XVII (2) October - December 1984

³ See for details R. Narayanan & R.L Chawla, "Limits to Export-led Growth : The Brazilian Experience during 1964-74," International Studies (New Delhi), Vol 17, (2) April-June 1978

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policy measures not only reduced the high rate of inflation but also stimulated the industrial production and accelerated the non-traditional exports in a big way. This faster growth in export was not independent of the corresponding growth in the import sector, largely financed by foreign capital⁴.

Oil-Crisis and Brazilian Economy:

The oil-crisis of 1973-74 seriously hit the Brazilian economy. It foreclosed the possibility of cheap fuel-based high growth scenario and also witnessed a considerable deterioration in the terms of trade, resulting in a severe deficit in the balance of payments position. These external constraints over and above the domestic constraints brought a renewed thinking on the process of economic growth amongst the policymakers and planners. There were two options before the policy makers, either to finance the deficit in the Balance of Payment (BOP) or to adjust the growth rate by deflating the economy. Brazilian chose the first option and deepened the process of industrialization. Once again the economy adopted the Import Substitution Industrialisation (ISI) strategy.⁵ Public sector enterprises started investing in the petrochemical, steel, fertilizers, aluminum, and telecommunication with a massive dose of foreign capital. Consequently, Brazil's foreign long term loans and financial increased from \$5.9 billion in 1975 to \$ 7.8 billion in 1976, \$ 8.4 billion in 1977 and \$ 13.8 billion in 1978.⁶

The ensuing external imbalance led Brazil to adopt a debt fed growth strategy during the period 1974-79. The current account of the balance of payments was in deficit throughout

⁴ R.L Chawla, "Military and Economic Development: A Case Study of Brazil During 1964-84, IDSJ Journal (New Delhi) Vol XVII(2) Oct-Dec 1984

⁵ This, however did not undermine the export promotion programme.

⁶ World Bank, World Development Indicators CDRom, (Washington, D.C) 2000

the period 1974-79, and the counterpart of this was a rapid expansion in external debt (from US\$6.1 billion in 1973 to US\$ 40.2 billion in 1979).

Debt Crisis in 1980s: Response and Policy Measures:

During 1979-80, the second oil shock nearly doubled the price of imported oil to Brazil and lowered the terms of trade further. The rise in world interest rates increased sharply Brazil's balance of payments problem and the size of the foreign debt. At the beginning of 1980s nevertheless, the government continued borrowing, mainly to face an increasing debt burden, while it tried vainly to maintain the high-growth strategy. As the world economy plunged into recessionary conditions, the commodity export prices index of non-oil LDCs, was down by 35percent at end December 1982 relative to end 1980. Further in the worsening international economic situation, stagflation in Western economies and accumulation of massive foreign debts in LDCs – international lending agencies become wary about the less- developing countries including Brazil. The Brazilian economy resorted to massive devaluation of the cruzeiro by 30 percent, abolition of many export subsidies and price controls and a policy of pre-determined monetary correction. In order to curb the excessive spending of the state sector, the share of government investment in gross capital formation declined to 5 percent in 1980 from an annual average of 10.8 percent during 1975-78. At the beginning of the 1980s, however, the foreign debt problem became acute, leading to the introduction of a program to generate growing trade surpluses in order to service the foreign debt. As a result, in 1981 real GDP declined by 4.4 percent. The 1982 Mexican debt crisis ended Brazil's access to international financial markets, increasing the pressure for economic adjustment.

A series of austerity programs were imposed by the International Monetary Fund in the wake of the debt crisis, which continued until 1984⁷. However substantial trade surpluses were generated only from 1983 onwards, largely as a delayed result of the import-substitution industrialization programs of the 1970s and the reduction in imports brought about by economic decline.

The IMF prescription had limited impact on the Brazilian economy. There was an increase in both inflation and unemployment rate. The volume of gross debt grew rapidly from a level of \$50 billion in 1980 to \$100 billion in 1984. Consequently debt service obligations jumped from \$10.6 billion in 1979 to \$ 13 billion in 1980, \$ 17.9 billion in 1983 to \$19 billion in 1984⁸. The austerity program enabled Brazil to meet interest payments on the debt, but at the price of economic decline and increasing inflation.

Inflation accelerated as a result of a combination of factors: successive exchange-rate devaluations of the austerity program, a growing public deficit, and an increasing indexation of financial balances, wages, and other values for inflation⁹.

During the high-growth of 1970s, a significant portion of foreign borrowing had been by state enterprises, which were the main actors in the import-substitution industrialization strategy. Initially, they borrowed to finance their investments. However, toward the end of the decade, with the acute shortage of foreign exchange, the government forced state enterprises to borrow massively, increasing their indebtedness markedly. Their situation worsened with the sharp rise in international interest rates in the late 1970s, the devaluations of the austerity program, and the

⁷ By the Christmas of 1984, as many as seven "Letters of Intent" were exchanged between IMF and Brazilian policy makers.

⁸ IMF, *World Economic Outlook*, (Washington DC), April 1984

⁹ The first two factors are classical causes of inflation; the last became an important mechanism for propagating inflation and in preventing the usual instruments of inflation control from operating.

decreasing real prices of goods and services provided by the public enterprises stemming from price controls. Because the state enterprises were not allowed to go bankrupt, their debt burden was transferred gradually to the government, further increasing the public debt. This, and a growing disorganization of the public sector, transformed the public debt into a major economic problem. By the mid-1980s, the financial burden stemming from the debt was contributing decisively to its rapid expansion.

One of the important components of the commercial policy adopted in Brazil was the high tariff rates. Other features defining a protectionist stance were: compulsory one-year deposits imposed on importers (interest free and not indexed to inflation), the prohibition of imports of goods deemed to be superfluous; and quantitative restrictions on imports by State Owned Enterprises (SOEs). This policy package was in fact the import substitution strategy's last gasp. The government refused to devalue the cruzeiro in real terms in the belief that the oil shock would be transitory rather than permanent and hence adopted the crawling-peg exchange rate system and the purchasing power parity rule.

In sum, faced with the oil crisis and shrinking world demand for its manufactures, the military regime's credibility came increasingly to be questioned since the two important promises of the military were to end inflation and to lower the burden of foreign debt. But surprisingly these two problems assumed serious proportions in 1980 when inflation had reached 108 percent per annum in 1975-78 and foreign debt reached a staggering figure of \$50 billion.

During the first half of the 1980s the Brazilian economy entered a period of stagflation, and in 1981 it suffered its first recession after four decades of

uninterrupted growth. Table 1 shows the trend in the Brazilian Real Gross Domestic Product during 1980-93

Table 1: Brazil Real Gross Domestic Product, 1980-93

(1980=100)

Year	Total	Per capita
1980	100.0	100.0
1981	95.8	93.7
1982	96.5	92.4
1983	93.7	87.8
1984	98.8	90.6
1985	106.5	95.7
1986	114.5	100.8
1987	118.6	102.4
1988	118.5	100.5
1989	122.2	101.8
1990	116.8	95.7
1991	117.1	94.4
1992	116.2	92.2
1993	121.0	94.6

Source: IBGE, *Anuario Estatístico do Brasil*, various years

The sad legacy of this growth era is Brazil's unequal income distribution. The country has a Gini Coefficient of 0.62 (1990), the highest in the world. This unequal distribution of income accentuated the problem of poverty in Brazil. Table 2 depicts the scenario in different regions of Brazil. Two conclusions can be drawn from this table. Firstly, poverty is much greater in the north (Belem) and northeast (Fortaleza, Recife and Salvador) than in other regions of the country. Secondly, although some

progress was made during the eighties, in certain regions, the overall picture remains the same.

Table 2: Brazil: Population below the Poverty Line in Selected Metropolitan Areas and Years during 1981-90

Figures are in percentage

<i>Metropolitan Area</i>	<i>1981</i>	<i>1983</i>	<i>1985</i>	<i>1987</i>	<i>1989</i>	<i>1990</i>
Belem	50.9	57.6	43.8	45.1	39.6	43.2
Fortaleza	54.0	56.2	43.6	37.8	40.7	41.3
Recife	55.0	56.6	47.5	42.8	47.2	47.4
Salvador	43.1	43.8	39.5	39.4	39.0	38.0
Belo Horizonte	31.3	44.1	36.1	27.7	27.2	29.6
Rio de Janeiro	27.2	34.7	36.8	25.9	32.5	32.2
Sao Paulo	22.0	34.4	26.9	20.0	20.9	21.6
Curitiba	17.4	29.6	24.3	10.9	13.5	12.2
Porto Alegre	17.9	29.7	23.3	18.7	21.0	20.9
Total	29.1	38.2	33.0	25.5	27.9	28.9

Source: IBGE, Anuario Estatistic do Brasil, 1992

When per capita GDP is compared at the regional level for the period 1970-90, it has been observed that income increased in the north, northeast and mid-west as compared to the whole country, but the gap between these regions and rest of the country remained considerable.

By and large this unequal income distribution was due to the quality of education provided by the Brazilian school system. Though compulsory primary education was almost universal but in Brazil for a period spanning more than fifty years (1932- 88) the proportion of repeating students enrolled in the first year of primary schooling has remained roughly around 50-60 percent. Therefore to break the vicious circle of poverty it is essential to enhance the quality of education.

The Brazilian external debt default in the 1980s was the outcome of over-lending by the commercial banks in creditor countries, facilitated by excessive international liquidity, as well as over borrowing, directly or indirectly prompted by the Brazilian government associated with the growth strategy adopted after the first oil-shock. There was no institutional framework for dealing with such problems. The main creditor countries, under IMF leadership, co-coordinated a strategy which became known as 'muddling through', but it was not successful because it failed to address the fundamentals of the debt problem. Such concerted action by creditor and debtor country governments, under the co-ordination of international organizations is a good example of government failure.

Stabilisation Plans: Analysis and Impact

In 1985, after 21 years of military rule, a new civilian government came to power that was widely viewed as opposing the policies of the military period. Many prominent figures in the new government had supported the previous regime. Some important features of the earlier period were retained and became even stronger. For example the complete disregard for fiscal and monetary policies necessary for price stability, the strong support for state controlled companies, the emphasis on protectionism leading to the loss of efficiency of Brazilian companies, and strong support for government interventions of all sorts. The main difference in relation to the military period was that the political basis of the government had increased from a relatively small group of people and institutions to a very large set that included political parties, public workers in the three areas of the federal government – Presidency, Congress and Justice-, workers in state companies and major government institutions and state and local governments. All these different groups lobbied to increase their share of revenues and benefits. The result was a sharp increase in government

spending which caused a growing deficit. Moreover, interest payments on the internal debt was also growing fast. Therefore, inflationary pressures started to accumulate. The chief adjustment problem confronting the Brazilian economy following the onset of the debt crisis was that the important means of financing the public deficit disappeared overnight. Replacing external financing of the public sector deficit would require a combination of measures: cutting government expenditures, raising taxes, increasing domestic public debt or issuing money, thereby increasing the inflation tax. In addition, the Brazilian economy had to transfer real resources to creditor countries, which meant transforming a trade deficit into a trade surplus. Fiscal adjustment was necessary to enable the government to obtain the domestic resources for buying the foreign currency needed to service the debt. The easiest part was to create a trade surplus by means of real depreciation, but that had the side effect of increasing the rate of inflation due to wage indexation. In solving the fiscal problem, a strategy of muddling through and relying on the inflation tax was adopted. The outcome of this macroeconomic mismanagement policy was to launch a hyperinflation process that resisted several heterodox stabilization plans. Though the implementation of the stabilization plans initially brought down the inflation for a brief period but it resumed its ascent to ever-higher levels. Hence several heterodox plans were attempted from 1986 to 1991, which centered on wage and price freezes.

The important features of these 'heterodox plans' centered included:

- i) deindexation of the economy; ii) price freeze for an indefinite period of time; iii) monetary reform introducing a new currency unit iv) conversion

of wages and other contract prices into the new currency, by using the average real value of such prices observed in some previous period ; v) use of a conversion table for converting liability values, in order to prevent unexpected gains or losses for their holders; vi) fixing the nominal exchange rate ; and vii) in the case of the Collor Plan, a disguised capital levy also implied the freezing of assets.

The *Cruzado Plan* was initiated on 28th February 1986¹⁰. Secrecy was an important aspect of the *Cruzado* and later unorthodox plans. The main instruments of the plan were: a) A new currency was introduced- the *cruzado*- with the elimination of three zeros from the old one- the *cruzeiro* b) All prices were legally fixed at the levels prevailing on 27th February 1986. The freeze also applied to the exchange rate. c) All contracts and payments due in the old currency were subject to rules of conversion to the new currency¹¹. The justification was that these contracts contained an expectation of very high inflation that was no longer valid. Therefore, all payments due after the start of the plan were converted to the new currency with a discount d) wages were converted to cruzados based on the real value averaged for the previous six months. The rules were fixed by the government, which also imposed an eight percent increase for all workers on top of the average real wage. House rents were also fixed in cruzados using this real average method. e) The government also tried to eliminate all indexation in prices and contracts. After the start of the plan, contracts could only be revised after a one-year period.

The Cruzado Plan was, initially, very successful in keeping inflation under control. However, with the exchange rate freeze and the increase in economic activity, exports

¹⁰ Marcio Moraes Valenca, "The Lost Decade and the Brazilian Government's Response in the 1990s" *Journal of Developing Areas* , Vol 33 1998

¹¹ These conversion rules had been previously introduced in Argentina the year before. See for details(Manuel A.R. DA Fonseca, "Brazil's Real Plan", *Journal of Latin American Studies*, (London) Vol 30, 1998

stagnated and imports rose sharply, leading to trade deficits by the end of 1986. In April 1987, monthly inflation was again above 20 percent. In May a new economic team replaced the Cruzado Plan with the Bresser Plan¹². The Plan introduced a three-month wage and price freeze. Cruzado was devalued to 10 percent. As a result prices rose sharply after the freeze period. The major flaw of Cruzado and other Plans was that these Plans had not taken any measures to reduce government deficits and to control money supply. Collar Plan was introduced in March 1990. Essentially the Collar Plan contained the same elements of the previous unorthodox stabilization attempts and its achievements of the former Plans. After an initial decline inflation soon mounted and it reached a level of 2000 percent. In February 1991, another wage and price freeze was adopted and unsuccessfully.¹³

The new constitution promulgated in 1988, represented all the diverse interests of the Brazilian economy. From an economic standpoint, the most important changes brought about by the 1988 constitution were: a) the transfer of tax funds from the federal government to state and municipality budgets; b) this reduction of federal government's revenues was not matched by a transfer of obligations to states and municipalities and this led to potentially larger deficits at the federal level of government that, in practice, were not compensated for by surpluses in sub national administrations; c) the new constitution guaranteed job security to a large part of civil servants at federal, state and local levels and, since the country's laws forbid lowering wages, a major share of government expenses could not be reduced ; d) In 1988, congress began to participate in the preparation of the budget which previously was a sole prerogative of the Presidency, and this as a rule led to greater expenditure and deficits ; e) the 1988 constitution allowed public servants to join labour unions and

¹² The name Bresser was given after the Finance minister at that time.

¹³ This came to be known as Collar Plan II

guaranteed their right to strike, and this made more difficult the adoption of austerity measures affecting government workers.

In the second half of 1980s two ideas were dominant among Brazilian politicians. First, economic growth was viewed as a necessity in order to reduce poverty and promote development in a country plagued by social inequalities. Also, there was great resistance to any proposal perceived as conservative, especially those viewed as originating from international financial institutions, particularly the IMF. Therefore any initiative in the direction of reducing the deficit and promoting monetary discipline met strong opposition. With this background, a new line of economic thinking emerged that became very popular among Brazilian economists. It argued that fiscal and monetary policies were useless in promoting stability and, in order to curb inflation it was necessary to eliminate its so-called inertial component that is, the indexation of wages and prices.

But the major problem with this heterodox plan was that it failed to attack the roots of the problem: the fiscal crisis and the confused state of the monetary fiscal regime.

Real Plan: Stabilization and Effect

On July 1994, the Brazilian government took the decisive step to introduce a new currency, the Real, as the last part of the de-indexation program. The success of the Real Plan in fighting a big and protracted inflation is principally related to three elements. The first was the previous search for fiscal balance, so as to prevent the likely deterioration in the government budget, second the institutionalization of an indexed currency tied to the US dollar functioned as a nominal anchor for all prices and contracts, which was known as the URV (Unit Value of Reference) finally, on July 1, the URV was issued as a de facto currency known as the Real. Accordingly,

the previous stability of the price level in URV remained when the real unit of value finally became the national currency.

Both the debt structure and size changed in important ways after the monetary reform, as the annual inflation rate fell from a four-digit figure to a one-digit figure. Monthly inflation rates were reduced from 46.6 percent in June 1994 to 0.88 percent in December 1996. Annual inflation was 909.7 per cent in 1994, which greatly contrasts with the rate of 14.8 percent experienced in 1995, 9.3 percent in 1996 and 4.3 percent in 1997.

Until the Asian crisis (October, 1997), foreign capital kept flowing in steadily, and the domestic public debt market experienced a period of gradual maturity lengthening due to decreasing yield volatilities. After the last quarter of 1997, a series of ups and downs has characterized the international finance scene for the emerging markets, also affecting the domestic public debt market.

This Exchange Rate Based Stabilization Programme was successful in bringing the price stability but it failed to achieve both external and internal balance. Brazil's trade balance shifted from a surplus of US\$ 13.3 billion in 1993, to a deficit of US \$ -3.2 billion in 1995, due to a large appreciation in the nominal (and real) exchange rate. At the same time, heavy reliance on the interest rate anchor, aimed at correcting the external imbalance crowded out the opportunity for achieving a balanced budget.

In examining the exchange rate anchor policy it can be recalled that the Real Plan was formulated in light of the Cavallo Plan, the Argentinean stabilization program adopted in 1991, which combined the exchange rate anchor with a tough metalist rule for money creation. Although the exchange rate anchor was not new to the Brazilian economy the experience of the Cavallo Plan led to a new appraisal. The main

conclusions drawn were three: a) the exchange rate anchor was very effective in stabilizing prices in a new currency; b) it entailed a serious risk of substantial appreciation in the exchange rate ; c) to shield against such a risk it was inconvenient to tie the anchor to a fixed parity with US

Dollar. As a result of this policy an exchange rate was fixed only at its upper limit i.e, $Real1 = US\$ 1$ - and free to fluctuate downward according to market and exchange rate policy situation.

In spite of the initial success of the Real Plan there are major reasons of concern especially when one keeps in mind that, before the beginning of the Plan, the Brazilian economy was on the brink of a hyperinflation. Despite statements made by government officials that a balanced budget would have to be achieved, no substantial fiscal adjustment has been implemented. Therefore a strong inflationary pressure that existed before the plan were controlled solely by eliminating indexation and fixing prices in markets controlled by the government especially the exchange rate. The backbone of the Plan was the elimination of indexation in the exchange market, the labour market, public utility prices- including oil and gasoline-, and some generally used contracts- especially those applying to rents, private schools and medical insurance. After July 1994 wages, public utility prices, and prices settled by legal contracts could no longer be raised in reflecting previous inflation: any increase occurring before a one-year interval was prohibited.

The extremely fast increase of the federal bond debt during the Real Plan was one of the more ominous macroeconomic indicators. After remaining stable during the first year of the new currency (July-94 to June-95), both measures of debt accumulation started moving upward. As a ratio percent of GDP, the federal bonded debt almost quadrupled in less than four years.

The structure of the domestic debt, i.e., its composition: denomination of the debt (domestic currency vs. foreign currency), indexation (to domestic price levels, to the exchange rate, to short-term interest rates, etc.), and maturity structure can be analysed in the following way.

All domestic federal bonded debt is redeemable only in R\$. Only the external debt is redeemable in foreign currency. When the debt started moving upwards in mid-1995, it was the nominal (non-indexed) part that was mainly responsible for the growth. The nominal average maturity kept increasing in total debt. The share of non-indexed to total debt remained around 30%- 40% between July 94 and November 95, and then it started to grow, reaching 60% around mid-96. That share was maintained until the Asian crisis, in September 1997, when it started to decline. Until the Russian crisis, in May 1998, the nominal debt share was still above 50%, despite the precipitous fall in average maturity. With the Russian crisis, the Treasury and the Central Bank started to issue only indexed debt (for reasons that will be analyzed later), and the non-indexed debt share fell to 3.5% in December 1998. After the nomination of the new Central Bank governor, in March 1999, this share increased.¹⁴

The share of bonds indexed decreased continuously during the whole period. According to Brazil's Central Bank sources, that reflected a policy decision to stop issuing inflation-linked bonds¹⁵, which were deemed inflationary.

¹⁴ In the beginning of the Real Plan the government was fighting several forms of mandatory indexation. It is quite natural to think that courts would be more likely to uphold previous mandatory indexation clauses for wages or other sources of income if the government itself had kept inflation indexation for some of its debt instruments. [Afonso S. Bevilaqua & Márcio G. P. Garcia, "Debt Management in Brazil: Evaluation of the Real Plan and Challenges Ahead", Department of Economics Pontifical Catholic University of Rio de Janeiro (PUC-Rio) Rio de Janeiro, November 1999].

¹⁵ It is a debt instrument issued for a period of more than one year with the purpose of raising capital by borrowing. Generally a bond is a promise to repay the principal along with interest on a specified date. The yield from a bond is made up of three components: coupon interest, capital gains and interest on interest. (www.investorwords.com)

Dollar-linked bonds remained around 10% of the total debt between July 94 and August 95, declined to 7% of the total between September 95 and February 96. With the deterioration of the economic situation in Asia, it increased once again to reach 15% at the end of 1997. That share rose throughout 1998 to around 21% at year-end, showing that agents were (correctly) hedging against the projected devaluation. The devaluation on January 13, 1999, and the continuous depreciation after the currency was floated two days later, increased the value of the dollar-linked debt *vis-à-vis* the other bonds. The share jumped to 30% after the devaluation, but has fallen, since, as the demand for new issues of dollar-linked has diminished considerably and the currency appreciated after March, 1999. With the new round of depreciation that started in May, 1999, the demand for dollar-linked debt (or any hedge against the depreciation) has been increasing again, forcing the Central Bank to supply more of this kind of debt.

The share of bonds indexed to the short-run interest rate (or zero-duration bonds)¹⁶ was around 25% of the total debt between July 1994 and July 1995, 35% between August 95 and February 96, falling to approximately 20% in November 1997. In December 1997, a large issue of this kind of bonds distorted all debt-statistics. Around R\$ 50 billion of bonds were issued as part of a renegotiation deal with the Brazilian state of São Paulo making the share of zero-duration bonds jump to 35%. After that, as those bonds were swapped with the Central Bank for shorter-maturity ones, their share fell gradually to 21% in May, 1998, when the beginning of the Russian crisis made the Brazilian Central Bank and the Treasury change strategies regarding the issuance of nominal bonds. The issue of nominal bonds had been

¹⁶ Zero-duration is a bond, which pays no interest and is sold at a deep discount on its face value, and matures at its face value. It has the important advantage of being free of reinvestment risk. (www.invcstorwords.com)

stopped, and only zero-duration bonds started being issued. By December 1998, the zero-duration bond share was almost 70%. It fell in January due to the increase in value of the dollar-linked bonds, and it kept falling later as the issuance of nominal bonds resumed after March 1999. As of September 1999, its share hovered around 60%.

Towards the Real Crisis in late 1990s

The average maturity of the total debt has substantially increased in relative terms although it remains quite low in absolute terms. Until the Asian crisis (September, 1997), maturity kept increasing despite the increasing share (and total value) of the nominal debt. Investors in public debt were not incurring more price risk, despite the increase in the portfolio size and in the nominal debt maturity. With the international financial crises, this virtuous circle came to an end. When Brazil began to suffer the contagion effect of the Asian crisis, in the form of a speculative attack during the week of October 27, 1997, the Central Bank quickly reacted by increasing the basic interest rate, from 20.70% to 43.41%. An interest rate of 43% per year (with the inflation rate well below 5% per

year and an exchange-rate devaluation of 7.5% per year) was clearly unsupportable in the long run. Therefore, had the Treasury and the Central Bank decided to place one or two year bonds at such a high rate, they could conceivably have sparked a panic, because of the informational content of such move. Placing debt at 43% for short periods might be desirable, but paying such high rates for long periods puts the government budget on a clearly unsustainable path. That could then trigger expectations of a government default. In other words, in such a situation, there may be no equilibrium with such a high interest rate and long maturity. The only equilibrium

may be the one with very short maturity bonds. An alternative explanation is that the maturity premium asked by the market for

longer maturity bonds was beyond the maximum premium implied by the auction managers' reservation prices.

Until the end of 1997, only three-month maturity bonds were placed, all with negative maturity premia. During the first five months of 1998, the Treasury and the Central Bank

were able to place nominal debt with increasing maturity. However, when the Russian crisis first hit in May, 1998, even short-term bonds (three or six months) became extremely costly for the issuers, as yields rose substantially. As a consequence, the market for three month, six-month and one-year bonds vanished, and the only nominal bond placed in the auctions after mid-May 1998 were one-month BBC's (a nominal bond issued by the Central Bank). In June and July (1998), even that became too expensive, and the Central Bank resorted to its last resource, the zero-duration bond.

This decision had an immediate impact on the amounts that were rolled over in each auction. When the debt maturity decreases, the debt must be rolled over more often. That is exactly what was happening until May 1998. The amounts of monthly redeemed and issued debt tripled. This, of course, created a new source of risk, that of not being able to roll over the debt in the event of a crisis, with possible impacts in the exchange rate anchor that was in place at the time. After May, due to the strategy of placing only indexed bonds (mostly zero-duration and dollar-linked), average maturity resumed its upward trend, and the rollover risk decreased. However, this

happened at a cost: if interest rates had to be lifted in the future, the fiscal budget would be badly hit. With the benefit of hindsight, both these strategies caused massive losses to the fiscal budget.

After a quarter when more than US\$45 billion of foreign reserves vanished, the Brazilian government decided to float the Real in January 1999, thereby inaugurating a new phase of the Plan.

The exchange rate anchor both as a price co-coordinator and competitive index for trading failed, to achieve the monetary balance of the Brazilian economy. Monetary balance was achieved at the cost of the external balance and monetary austerity. It has been argued by economists that the consumption boom and the banking crisis was the ultimate outcome of the Real Plan.

Domestic savings dropped sharply, after the Real Plan to 17.9 % of GDP in 1995 from 21.5 % in 1993. This was indeed, one of the stylized facts of the Latin American countries where a consumption boom came about with foreign capital whereas in South-East Asian countries they enjoyed the investment boom. In scholarly writings these developments are explained in terms of two main factors. A representative agent's decision to increase his or her present consumption depends on i) increase in wealth stemming from easier access to the international financial market, as well as from reduction of old debts ; ii) distrust of the stabilisation programme and the possibility of exploiting transitory gains associated with low prices or interest rates.

From June 1994 to March 1995 domestic production of capital goods experienced an astonishing expansion even superseding average production of durable and non-durable consumer goods. However after March 1995, the drop in investment was

sharp and steady. Finally the change in quarterly GDP data confirms the corresponding business cycle downward trend.

It must be observed that the instability was motivated in the case of the Real Plan by the very credibility of this programme, i.e by investor and international wealth holders euphoria with respect to the economy prospects rather than distrust. The rationale for such euphoria is short-run investment reactions or expectations influenced by the current state of affairs.

Financial stabilisation was a second major post-Real development¹⁷. In August 1995, Banco Economico (Brazil's eighth largest private bank) went bankrupt. Other financial institutions were then hit by a wave of bankruptcies, since neither the level of tolerable economic activity improved nor did the interest rate decrease to bearable levels. The Brazilian Central Bank liquidated eighteen banks in 1995-96. The government and national media associated this crisis with the failure of the banks to operate efficiently under a low inflation environment. In fact, in shifting toward private sector loans, Brazilian banks did not monitor loans to distinguish bad and good borrowers. This microeconomic account of the crisis downplays a fundamental macroeconomic relationship i.e the visible correlation between the vicissitudes in loan markets and the stop-go cycle. Bank loans soared during the third quarter of 1994, followed by a period of diminishing growth rate beginning in December and reached its trough in September 1995. As for the role of policy in the observed financial destabilization, the central element was the failure of the exchange rate anchor to correct the real exchange rate, thus pushing the tradable sector into a debt-inflation crisis.

¹⁷ Carlos A. Cinquetti, "The Real Plan: Stabilisation and Destabilisation", World Development Vol.28 No1,2000 pp 155-171

The key factor behind stabilization was related to structural changes in the inflationary process. These structural changes started before the stabilization plan and were associated with the country's trade liberalization program that was launched in early 1990 and speeded up from early 1992 onwards. Trade liberalization is believed to have changed the structure of inflation by affecting the price formation process of manufacturing goods calculation process of manufacturing prices. As an economy becomes more open to international trade, external prices are expected to play an increasing role in the price setting rules of manufacturers. This may happen through costs and competition channels. Costs tend to be increasingly dictated by prices of imported raw materials and intermediate goods, while external prices generally function as a guide for the price policy in the manufacturing sector.

CHAPTER III

TRADE LIBERALISATION: A COMPARATIVE ANALYSIS

The Place of Developing Countries in World Trade:

International trade and industrialisation have been central concerns in the debate on development theory and policy for many years and international trade flows have increased dramatically in the past three decades (1970-1990)¹. An important feature of world trade over this period has been the growing participation of developing countries, resulting in an increase in their share of merchandise exports from less than one fourth to almost one third between 1970 and 1999. These trends have been accompanied by a shift in the composition of their exports from primary commodities to manufactures, particularly since the early eighties. The share of agriculture commodities fell from about 20 in 1970s and 1980s to 10 percent by 1999 and manufactures now account for 70 percent of developing countries' exports².

However, the impressive performance of developing countries as a whole in terms of their increased share in world trade and their shift toward manufactures over the last three decades (1970-1990) conceals two important facts. First, with the exception of a few East Asian newly industrialized economies, exports by developing countries are still concentrated on a limited range of products that are derived mainly from the exploitation of natural resources and/or products with low value-added that use mainly unskilled labour. These activities provide limited prospects for productivity

¹ The group of developing countries includes all countries and territories classified by the OECD/DAC as recipients of official development assistance (ODA) and encompasses Least Developed Countries, Other Low Income Countries, Lower- and Upper-Middle Income Countries.

² UNCTAD, Trade and Development Report, 2002, (Geneva), 2002.

growth. Even though statistics show a considerable expansion of developing countries' exports of technology-intensive goods, these countries are often involved in the low skilled assemble stages of international production chains. Most of the technology and skills are embodied in imported parts and components and the greater part of value-added accrues to producers in more advanced economies³.

Second, a large number of countries are not part of this integration process and actually have experienced a decline of their share in world trade. Indeed, the export share of the 49 least developed countries (LDCs) fell from 3 percent in the 1950s to around 0.5 percent in the early 1980s and has remained around this very low level over the 1990s⁴.

A combination of domestic and international factors helps explain why these countries are lagging behind. Policies that are not conducive to domestic or foreign investment and private entrepreneurship, low levels of education, corruption, high transport costs, poor quality of infrastructure and services, as well as, in some cases, civil unrest and conflict, are among the domestic reasons. At the international level key problems are dependence on a small range of commodities that suffer from worsening Terms of trade; highly volatile world prices; strong competition among producers and limited competition among buyers; relatively high trade barriers throughout the world, especially in agricultural and labour-intensive goods; and persistent difficulties in exploiting trade preferences offered by OECD countries. Furthermore increased competition for foreign direct investment puts many smaller

³ UNCTAD, Trade and Development Report, 2002, (Geneva), 2002.

⁴ UNCTAD Duty and Quota-Free Market Access for LDCs: An Analysis of QUAD Initiatives, (Geneva), 2001.

economies in a weak bargaining position when seeking to attract appropriate investment⁵.

Openness Specialisation and Growth: Theoretical Perspectives

In terms of economic theory, the support for trade liberalization is closely associated with gains from trade in the standard Heckscher-Ohlin-Samuelson (HOS) model. Under certain assumptions, (such as CRS production functions, perfect competition among firms, and perfect price and wage flexibility) the HOS model predicts that free trade between two countries with identical and homothetic preferences and identical technologies will result in gains for both countries, due to specialization according to comparative advantage. In other words, the model asserts that free trade will bring about more efficient resource allocation, since each country will specialize in the production of the goods that use intensively the country's abundant factor. It means that, in absence of distortions of any kind, the removal of all barriers to trade is the best policy to be adopted. The basic intuition behind this result is that trade provides a country with an additional method of transforming one good to another, and by providing this opportunity, makes the country better off in the sense of pushing it to a higher transformation curve in commodity space or utility possibility frontier in utility space.

In addition, it can be shown that – under certain conditions – a competitive equilibrium under free trade is Pareto optimal. However, in the presence of market failures (such as externalities in consumption or production), and when the government is unable to correct them optimally, a competitive equilibrium under free

⁵ According to UNCTAD, developing countries share of FDI flows in 1999 declined for the second year in a row to 19% compared to a peak of 41% in 1994. In addition, FDI flows from the EU and US are projected to have fallen by 37% and 42% in 2001 and a rapid recovery seems unlikely.

trade will not necessarily be efficient or, in other words, trade restrictions may lead to an equilibrium which Pareto-dominates the one under free trade. In particular, this may be the case when there are positive production externalities in import-competing sectors of the economy.

There are two different kinds of effects from trade openness: static effects, which involve once and for all gains in the level of output, and dynamic effects, which affect the growth rate of the economy. The basic HOS approach argues that trade may lead to static gains due to exploitation of comparative advantage and the consequent improvement in the efficiency of the allocation of domestic resources. Dynamic gains, in turn, depend on a different set of considerations. In the HOS model, there is no clear-cut relation between trade and economic growth in the long run.

On the other hand, this relation can be discussed in terms of neoclassical growth theory. In standard models with diminishing returns and exogenous technological change (Solow-Swan type), the steady-state rate of growth⁶ of income depends on the exogenous rate of growth of the labor force and on exogenous labor-augmenting technical progress. In this case, trade policy may have different implications depending on specific parametric assumptions:

- i) If it is assumed that the marginal productivity of capital converges monotonically to zero as the capital-labor ratio expands indefinitely (as under Inada conditions), then trade liberalization and other kinds of policies may not have any effects on the steady-state growth rate of the economy. However, even in

⁶ Solow and Swan proposed a growth model where the capital-output ratio, v , was precisely the adjusting variable that would lead a system back to its steady-state growth path, i.e. that v would move to bring s/v into equality with the natural rate of growth (n). The resulting model has become famously known as the "Solow-Swan" or simply the "Neoclassical" growth model. (R.M. Solow (1970) *Growth Theory: An exposition*. 1988 edition, Oxford: Oxford University Press)

this case, trade policy can have effects on the long-run level of welfare, as well as temporary growth effects during the transition to steady state;

(ii) If the marginal product of capital is constant or, even if it decreases, it is bounded away from zero by a sufficiently high positive number, then we do not find that the long-run growth in output per worker is necessarily zero in the absence of labor-augmenting technical progress and, therefore, trade policy may affect positively the steady-state growth rate.⁷

Endogenous growth models in which issues like knowledge spillovers, learning by doing, and human capital accumulation play an important role have been also quite prominent. It can be showed that, in these models that if there are two countries (one developed and one developing), the growth rate of the later may depend positively on its initial stock of knowledge and negatively on the cost of imitating technologies generated in the advanced country. Once one postulates that a higher degree of openness lead to lower imitation costs, and trade liberalization may increase the steady-state growth rate in the developing economy. In this case, openness refers not only to the flow of goods across countries, but also to the international flows in information and technology.

Suppose there is an economy where one good is produced with skilled labor and intermediate inputs. In this economy, there is a Research and Development (R&D) sector that produces new designs for intermediate goods. It is assumed that the rate of innovation in the R&D sector depends positively on the stock of accumulated knowledge, and also that an increase in the number of available intermediate inputs raises labor's productivity in the final goods sector.

⁷ Srinivasan, T. "Trade Orientation, Trade Liberalization, and Economic Growth." Saxonhouse, G. and Srinivasan, T. ed.; Development, Duality, and the International Economic Regime. (AnnHarbor, The University of Michigan Press), 1999.

In such a model, trade liberalization has the effect of increasing the total number of intermediate inputs (assuming that the two trading economies are not identical in this aspect). It also means that the market for newly designed goods has expanded, which provides an additional return to the Research and Development sector. If we assume that openness implies also free international flows of ideas and knowledge, we may find two positive effects on growth. First, the increase in productivity in the final-good sector has a positive effect on the generation of domestic knowledge. Second, the additional incentive to engage in research activities will cause a higher employment in the research sector and, therefore, it will speed up the rate of innovations in the intermediate inputs sector. Due to these effects, one can find a positive correlation between openness and economic growth.

Integrating Trade into Development Strategies

It is essential to integrate trade into development strategies in a way that contributes to one of the fundamental objectives of poverty reduction and sustainable development. This calls for an approach that brings trade issues into the dialogue on Poverty Reduction Strategy or other national development strategies, which should fully exploit the linkages between trade and all other areas important for sustainable development. Trade capacity will be improved through other trade-related development assistance including, promotion of a sound macroeconomic and tax policy framework; support for restructuring and greater competitiveness of the production system; and support for regional integration and co-operation.

Trade policy must be part of a country's own sustainable development strategy, and should accompany macroeconomic and institutional reforms that foster equitable growth and promote human development, as well as ensuring the proper management of natural resources and the protection of the environment. This is a key requirement

if developing countries are to reap the benefits of trade expansion. It is also vital to ensure that trade related assistance is effective in raising trade capacity in a way that promotes sustainable development and gender equality.

International Financial Institutions, such as World Bank and IMF introduced, during the 1980s, revised their lending mechanisms by adding the known conditionalities, which included the trade liberalisation policies particularly concerning developing countries. Many studies on trade impacts into developing countries carried out in the seventies. The evaluation of developing countries policies also aimed to face oil crises in the 1970s and debt crisis in the 1980s, which have had strong influenced in the Brazilian economy. At the beginning Brazil believed to be amongst the luckiest, when the economy boosted in the so-called "Brazilian miracle", with two digit growth rates in some years. But when persistent external indebtedness revealed itself inconsistent with the country' surplus generation in the late 1970s and 1980s, it collapsed due to lack of resources to repay the debt. The government at the beginning of the 1980s reinforced the ISI policies that were in place from the introduction of the Second National Development Plan (II PND) in 1974. The main import restrictions were Non-Tariff Barriers(NTBs) and foreign exchange controls, which were introduced to reduce the foreign deficit with some success, since the current account that was on deficit of 8% of the GDP in 1982 achieved small surplus in 1984. Inflation rose sharply and became persistent when combined with international debt, high interest rates and less international trade, which made particularly difficult to reach the minimum levels of foreign exchange needed to face indebtedness. Only when debt crisis was in the way to a solution, the country was able to introduce new trade policy together with other reforms, required by the agreement to solve the debt problem.

International trade theory has stated for many years now that lowering tariffs and other trade barriers may increase competition in the domestic market, which increases pressure for modernization, cost and prices reducing and improving product quality. Another consequence of such reforms, however, is that the access to imported goods and technology, although being cost-cutting stimuli could results in increasing profits, due to the international prices being less than the domestic ones and new technology and modernisation also encourage better resource allocation, by the possibility of importing final and intermediate goods⁸.

Although a consensus has not been established, trade reform follows a sequence, in order to achieve the objectives. It has 4 stages: i) first the country has to eliminate quotas and other non-tariff barriers (NTBs), substituting them by tariffs (tarification), ii) second they began by reducing tariffs, iii) third they search an uniform tariff, and iv) fourth reducing the uniform tariff to a international level. Each phase has to be followed by other major reforms that also have implications to the success of trade reforms.

To mention some of them, these are labour market regulation, financial markets reforms, and fiscal and current account reforms aiming to equilibrium. Trade policy reforms are meant to enhance the tendency to outward orientated trade, relieve the anti-export bias, by reducing import tariffs, introduce more competition with the domestic market, by allowing increasing imports, faster and more efficient resource allocation, are also the vector for more dynamic trade in technology, which will also be a factor of increasing the rate of growth. Based on such implications IMF and World Bank encouraged LDCs to engage reforms.

⁸ Bhagwati, J. Srinivasan, T. Lectures in International Trade. Cambridge, Mass.: MIT Press, 1983.

Economists like Dornbusch, and Levinsohn, have been positive with respect to the links between free trade and performance. Weiss and John, studied the case for Mexico, and concluded for positive influences of trade liberalisation on total factor productivity and investments, although the astonishing export performance showed in the Mexican data could have other sources. Other authors, however, pointed out that constraints in LDCs' markets seemed to limit the capabilities to better allocation of resources; thus impairing the expected positive trade effects. Thus the benefits of trade liberalisation are subjected to other reforms being successful, since they have to be implemented before or at the same time as trade reforms.

Turning to the discussion of the Brazilian case, some authors have analysed first the effect of trade liberalization for the whole manufacturing sector and others have discussed the effects of trade liberalisation on some specific sectors, like globalisation in the Brazilian steel industry and for the agriculture and Mercosur trade agreement. Others studied trade liberalisation effects on Total Factor Productivity (TFP), Labour productivity, market shares and profits, using 89-94 data with effective rates of protection based on the I/O (Input Output) matrix of 1985.

The structure of tariffs had remained virtually unchanged since the introduction of ad valorem tariffs in 1957. By 1988 there were generalized redundant tariffs in all sectors except for Pharmaceuticals, Clothing, Footwear and Other Manufacturing. That is, the tariff exceeded the difference between the world price and the domestic price, which is the implicit tariff. For the whole of Industry of Transformation the actual tariff was 56% while the implicit tariff was only 16%. Moreover there were additional taxes on imports:

IOF (on foreign exchange transactions), TMP (a hypothecated tax for investment in port facilities), and AFRMM (a tax to provide subsidies for the domestic merchant

fleet). These added on average 28% to the cost of imports, and taken together with tariffs implied redundancy in every sector of manufacturing.

The process of economic liberalization initiated in 1990 has produced significant changes in Brazil's trade regime, resulting in a more open and competitive economy. Imports have increased as a result of generally lower tariffs and reduced non-tariff barriers, as well as the strength of the Brazilian currency relative to the U.S. dollar. Imports are composed of a wide range of industrial, agricultural and consumer goods. Despite some restrictive measures adopted during 1996 and 1997 to slow mounting trade deficits -- measures which the Government of Brazil maintains are temporary -- access to Brazilian markets in a significant number of sectors is generally good, and most markets are characterized by competition and participation by foreign firms through imports, local production and joint ventures. The Brazilian government is emphasizing increased economic opportunities for the private sector through privatization, deregulation, and the removal of impediments to competition.

Nevertheless, complexities of the Brazilian business environment for foreign service exporters are best handled through an association with a Brazilian partner. Doing business in Brazil requires knowledge of local regulations and procedures. Although the Brazilian Government has initiated large-scale programs to privatize its parastatals, it still dominates certain sectors of the economy, such as the telecommunications, petroleum, and electrical energy sectors, thereby limiting trade, investment and procurement opportunities. Companies which are able to operate successfully in Brazil will find the following sectors the most promising: telecommunications, computer hardware and peripherals, medical equipment and supplies, electric power supplies, travel and tourism, oil and gas field machinery and

services, pollution control equipment, computer software, processed food, and transportation equipment.

Brazil imports a wide variety of capital goods, intermediate products, raw materials, and consumer goods. Brazil's imports reflect the country's industrial diversity and sophistication, and in recent years, the effects of pent-up demand for many products, especially in the consumer goods and computers categories. The Brazilian market for imports of services has grown and developed in recent years, but to a lesser degree than has the market for goods. Improvements in regulations and procedures affecting importation of software and registration and payments related to international franchising have created new and promising markets in those sectors.

However in practice the tariff structure was completely irrelevant. The reforms in 1957 which had established the *ad valorem* tariffs had also created the **Comissão de Política Aduaneira (CPA) (Commission for customs Policy)**, given discretionary powers to the **Carteira de Comércio Exterior do Banco do Brasil (Cacex) (Sector of Foreign Trade of Bank of Brazil)** to control the level of imports (and the conditions under which goods might be imported), and had activated the **Lei do Similar Nacional (Law of Article of similar Product)**⁹. This last is introduced, as a criterion for judging whether a particular import should be permitted, the question of whether a similar product was already produced in Brazil. In the 1980s, these entities operated a variety of non-tariff barriers. First, there was a list of 1300 products that in practice were not permitted to import. Second, all firms had to submit in advance annual plans for their imports. A third implicit non-tariff barrier affected imports of capital goods: access to fiscal subsidies and subsidized credit was made dependent on

⁹ In order to control import of goods and services restrictions were imposed by this law.

the domestic content of an investment project. Finally, by 1988 there were 42 Special Regimes, which accounted for 70% of all imports, excluding oil. Within these Regimes the tariffs were either zero or greatly reduced, but were subject to the **Lei do Similar Nacional**. Under the law a product could only be imported with exemption or reduction in import taxes if it could be shown that a similar product was not available domestically. Given the high tariffs prior to 1990, the law effectively applied to the great majority of imports. In the case of machinery and equipment, the association of domestic producers of machinery was consulted to determine the existence of a similar product, which only served to strengthen the protectionist nature of the measure. The products included in the Regimes either arose from international agreements, or were essential supplies to the domestic market, or were selected to give incentives to firms which planned to export a substantial fraction of their output.

Economists like Pinheiro and Almeida analysed the sectoral distribution of nominal tariffs, effective protection and non-tariff barriers (as measured by the proportion of goods in a sector affected). They found that all three had the same relative structure in 1980 and in 1988: consumer goods, especially durables, had the highest levels of protection, with capital goods and intermediate goods less protected. In particular, they found that prior to 1988 high protection was generally associated with: low capital/output ratios and low productivity, low wages, low scale economies and low concentration. It was also associated with a dominance of Brazilian firms in a sector.

Brazil's New Industrial Policy 1988

The policy introduced in 1988 by the Sarney administration had limited objectives. One was the removal of redundancy in the tariff structure: new tariffs were

established approximately at the differential between internal and external prices. Two of the import taxes (IOF and TPM) were suppressed. However tariffs plus taxes continued to provide redundant protection in virtually all sectors. Implicit tariffs were respectively 21% in capital goods sector, 21% in intermediate sector and 3% in consumer goods sectors: the actual tariffs including taxes were 50%, 31% and 50%. Exceptions to the general rule of redundancy were the Furniture, Rubber, Pharmaceuticals, Clothing and Footwear sectors: but non-tariff barriers covered at least 80% of the products in all these sectors except Pharmaceuticals. Some Special Regimes were also abolished, but these covered only 15% of total imports (excluding crude oil). The reforms were nothing like as radical as originally envisaged, mainly due to strong opposition from producer interest groups.

Some economists have identified significant changes in the sectoral pattern of protection in 1989 (as well as definite reductions in non-tariff barriers). There was relatively more protection for high technology sectors, and decline in protection for the low productivity, low scale sectors that had previously enjoyed high protection.

Trade Liberalization: The Programme After 1990

The reforms introduced by the Collor administration in 1990 constituted a major break with the protectionism of the past, and a decision to pursue **abertura comercial** (trade liberalization) as a long-term strategy for Brazilian development. The reforms covered three areas. First, the list of 1300 products with imports prohibited was abolished. Second, virtually all the Special Regimes were abolished: the exceptions were drawback, the Zona Franca of Manaus, and the information technology sector. Third, a tariff reform programme was announced, with some immediate adjustments,

and a four year programme of reductions to bring all tariffs into the range 0%-40% by 1994 with a modal value of 20%.

The immediate adjustment in tariff reflected a variety of objectives. Tariffs were adjusted at a level sufficient to protect the domestic market; tariffs on electronics and vehicles were raised to 85%, and on toys to 105% (in May 1990). The idea was that 'repressed demand' existed, and the additional tariffs provided additional 'security'.

At the end of June 1990, partial reductions in tariffs were brought in immediately to counter a rapid rise in the price of clothing. This anticipated plans for restructuring the sector drawn up by the **Programa Setorial Integrado (PSI) (Integral Program of the sector)** as part of the industrial policy of the Sarney Administration. The difference was that no resources were forthcoming for the complementary measures aimed at restructuring. In August 1990, there was a reduction in tariffs for agriculture machinery imports, as part of a series of measures for the agricultural sector. Tariffs for machinery and equipment not manufactured in Brazil were reduced immediately to zero.

Tariff reductions as a method of price control were also tried in some producer sectors in 1990 — cement, aluminum, stainless steel, chemicals and petrochemicals — on the suspicion that the monopolistic/oligopolistic structures of these sectors were particularly conducive to price increases in an inflationary period.

The tariff reduction programme was completed in three years, with the four steps being taken in February 91, January 92, October 92 and July 93. The two initial steps emphasized reductions in tariffs on capital and intermediate goods, with the main reductions in consumer goods at later stage. By international standards the tariff reductions were neither radical nor rapid, but together with the removal of the

apparatus of non-tariff barriers, they were sufficient to signal a complete change of direction, and to shock the manufacturing sector into taking defensive action.

For completeness one should take into account the two subsequent developments. The first was the additional liberalizing measures associated with the **Plano Real (Real Plan)** in the second half of 1994. Reductions in tariffs and import taxes were used selectively to discipline sectors which were thought to be increasing prices without justification. More generally, in September 1994 the government anticipated the Mercosur external tariff programmed for the beginning of the year 1995. The second development came in 1995, with a resurgence of protectionist lobbies. In response the government made use of the Mercosur list of exceptions to raise tariffs (in some cases to 70%) on cars, consumer electronics, consumer electricals, and ten textile products. There was even an incidence of non-tariff barriers with a licensing arrangement for imports of toys.

The Brazilian economy experienced a number of changes during the 1990s moving a new development model based on market reforms and outward orientation. Broadly speaking, we can say that these market-oriented reforms follow prescriptions based on the Washington Consensus and consist (to a greater or lesser extent) of the following: - trade liberalization: lower tariff and non-tariff barriers to international trade; - financial liberalization: greater degree of openness in the capital account and deregulation of domestic financial systems; - privatization of public enterprises: "An ambitious privatization program substantially increased the participation of foreign enterprises and banks in the economy."; greater flexibility of labor markets, which would (supposedly) help the economy to achieve its "natural rate of unemployment".

As far as trade policies are concerned, there was a widespread reduction of tariff and non-tariff barriers in the early nineties. The average import tariff in Brazil

fell from 51% in 1987 to 21% in 1992. In addition, other steps in promoting trade liberalization were taken, such as removing market reservation on computers and other products, ending legal discrimination against foreign enterprises. Brazilian exports have experienced a change in its composition, with an increase in participation of primary goods, semi-processed goods based on natural resources.

The share of primary exports interrupted its declining trend observed in the seventies and eighties, and remained constant through the last ten years – between 25% and 28%. Average annual growth rates of primary exports were consistently lower than the growth rates of exports of manufactures and semi-manufactures in the 1970s and 1980s.

Considering the volume of exports (instead of their *value* in US\$), in order to exclude the influence of commodity prices variations, we find that the primary sector presents a slightly better performance, when compared to the other two sectors, in the nineties: average annual growth rates from 1991 to 2002 are 9.13 (primary), 7.15 (manufactures), 7.77 (semi-manufactures). On the other hand, the primary sector presented the lowest growth rates among all three during the 1970s and the 1980s.

On the other hand, the analysis of the data can also point to different conclusions, which suggest that a clear-cut tendency in the pattern of specialization has not emerged from the post-reform period.

First, of all, we cannot observe any changes in the shares of the three groups in total exports in the 1990s. The shares for primary goods, manufactures, and semi-manufactures are, respectively, 28%, 54%, and 16% in 1990, whereas in 2002 the values are 28%, 55%, and 15% (table 1). This result is associated with the fact that the

average annual growth rates of exports of the three groups are almost the same during this period (as mentioned before). It is worthy to note also that manufactures remain the most important component of total exports, with shares fluctuating between 55% and 60% over the entire decade.

Second, interesting results can be found if we look at the exports of manufactures in a more disaggregated way.

In the tables given below a brief statistical analysis of the average annual sectoral growth rates has been and the composition of exports has been provided.

Table 1: Average annual growth rates

Period	Primary goods	Semi- Manufactures	manufact.
1975-81	10.78	27.22	14.13
1982-91	0.18	5.33	11.96
1992-2002	6.74	6.06	6.86

Source: Brazil. Secretariat of Foreign Trade.

Table 2: Brazil's Exports: 1974-2002*(US\$ million)*

Period	Primary good	%	Semi-manufactures	%	Manufactures	%	Total
1974	4,577	57.57	920	11.57	2,263	28.46	7,951
1975	5,027	57.98	849	9.79	2,585	29.82	8,670
1976	6,129	60.52	842	8.31	2,776	27.41	10,128
1977	6,959	57.42	1044	8.61	3,840	31.68	12,120
1978	5,978	47.22	1421	11.23	5,083	40.15	12,659
1979	6,553	42.99	1887	12.38	6,645	43.59	15,244
1980	8,488	42.16	2349	11.67	9,028	44.84	20,132
1981	8,920	38.29	2116	9.08	11,884	51.02	23,293
1982	8,238	40.83	1433	7.10	10,253	50.82	20,175
1983	8,535	38.97	1782	8.14	11,276	51.49	21,899
1984	8,706	32.24	2872	10.64	15,132	56.03	27,005
1985	8,538	33.30	2758	10.76	14,063	54.85	25,639
1986	7,280	32.57	2492	11.15	12,404	55.50	22,349
1987	8,022	30.59	3175	12.11	14,839	56.59	26,224
1988	9,411	27.85	4892	14.48	19,188	56.79	33,789
1989	9,548	27.77	5807	16.89	18,634	54.20	34,383
1990	8,747	27.84	5108	16.26	17,011	54.15	31,414
1991	8,737	27.63	4691	14.84	17,757	56.16	31,620
1992	8,830	24.67	5750	16.06	20,754	57.98	35,793
1993	9,366	24.29	5445	14.12	23,437	60.79	38,555
1994	11,058	25.39	6893	15.83	24,959	57.32	43,545
1995	10,969	23.59	9146	19.67	25,565	54.97	46,506
1996	11,900	24.92	8612	18.04	26,413	55.32	47,747
1997	14,474	27.32	8477	16.00	29,190	55.09	52,986
1998	12,970	25.37	8127	15.90	29,366	57.45	51,120
1999	11,828	24.64	7982	16.63	27,329	56.92	48,011
2000	12,561	22.80	8499	15.43	32,528	59.05	55,086
2001	15,343	26.35	8244	14.16	32,900	56.51	58,223
2002	16,952	28.08	8963	14.85	33,001	54.67	60,362

Source: Brazil. Secretariat of Foreign Trade.

The composition of capital goods imports has shifted significantly in the past few years, with electrical-electronic machinery and equipment becoming relatively more important, and mechanical machinery and equipment less important. The U.S., Japan, and the European Union countries are the principal suppliers of capital equipment to Brazil. Capital goods imports from the United States have included aircraft parts and accessories, electronic/digital machinery and communication signaling equipment, among other products.

Brazil is the number two Latin destination for U.S. exports after Mexico, and has traditionally been Brazil's most important commercial partner. Other major suppliers to Brazil are Argentina (10.2 percent of Brazilian imports), Germany (8.8 percent), Japan (5.9 percent) and Italy (3.9 percent). President Clinton's visit to Brazil in October 1997 underlined the importance of the Brazilian economy to the United States, and Brazil has been named by the U.S. Department of Commerce as one of the most important of the ten big emerging markets (BEM).

Brazil's lack of intellectual property rights has led to frictions with the U.S. and other major trading partners since 1993. These came to a head in 1994, when the U.S. named Brazil in formal trade actions on two occasions under U.S. trade law. The U.S. objective was to stimulate negotiations as well as appropriate action by Brazil to protect intellectual property rights. For its part, Brazil is critical of the U.S. for high U.S. tariffs on products such as steel and orange juice, which Brazil exports. Recent efforts by both sides have begun to reduce the tensions arising from these issues; in 1996 new IPR laws were enacted in Brazil and went into effect in May 1997.

Brazil ratified the Uruguay Round Agreements in 1994 and became a founding member of the World Trade Organization (WTO) on January 1, 1995. Brazil is a member of the Latin American Integration Association (*Asociacion Latinoamericana de Integracion*), which provides duty rate reductions to its members (Brazil, Argentina, Bolivia, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela)

Mercosur (Southern Cone Common Market)

On March 26, 1991, Argentina, Brazil, Paraguay and Uruguay signed a treaty to create a Common Market of the Southern Cone, commonly known as Mercosur (Mercosul in Portuguese). Mercosur became established as a customs union with a common external tariff (CET) on January 1, 1995, and represents a market of over 200 million people, the largest market in Latin America. All custom duties on trade between Argentina and Brazil were effectively eliminated on January 1, 1995, and the duties of Paraguay and Uruguay followed on January 1, 1996. In October 1996, Chile acceded to Mercosur as an associate member; soon afterward, in December, Bolivia signed a similar agreement.

The Common External Tariff (CET) currently covers approximately 85 percent of 9,000 tariff items; most of the remaining 15 percent were to be covered by 2001, and all will be covered by 2006. The CET levels range between zero and 23 percent, with the exception of tariffs on telecommunications equipment, computers, some capital goods, and products included in Brazil's national list of exceptions to the CET, such as shoes, automobiles and consumer electronics.

Mercosur - EU Agreement - The European Union (EU) and the Mercosur countries signed an agreement in 1995 to negotiate a tariff-reducing trade pact by 1998. The agreement, which would be the first of its kind between one region and another, was planned to come into effect in 1999, well before the hemispheric Free Trade of the Americas (FTAA) scheduled for enactment in 2005. An issue of contention is the EU's protective agricultural policy; Mercosur members consider agriculture to be of vital importance as it is an important sector of their individual economy

Mercosur & Andean Community Merge - In early November 1997, leaders of the Mercosur and Andean Community (formerly the Andean Pact) nations reaffirmed their commitment to form a free trade area by December 1997, when most bilateral trade agreements between member nations -- many originating in the 1980's -- are due to expire. Brazil has indicated unwillingness to renew bilateral treaties individually, citing a wider all-encompassing trade agreement between the two blocs a much more effective and modern means for regional growth and cooperation. Leaders of the Andean nations (Bolivia, Colombia, Ecuador, Peru and Venezuela) and Mercosur signed a deal shortly before the Summit of the Americas in Santiago, Chile in April 1998.

U.S.-Mercosur Relations - The United States signed a trade and investment framework agreement with Mercosur in 1991. At the request of the United States and other WTO (World Trade Organisation) member countries, the members of Mercosur also agreed to the formation of a WTO Working Party to examine the emerging common market.

U.S. President Bill Clinton made a 7-day tour to Venezuela, Brazil, and Argentina in early October 1997, his first trip ever to the region. The visit, originally scheduled for earlier in May, was delayed in an attempt to win congressional support for fast-track authority, with the hope that this could parlay into new agreements with the three countries to be visited and ultimately for hemisphere-wide free trade. During the trip, whose main focus was to be trade, minor agreements were signed on the environment, narcotics and education.

Clinton confirmed to the Latin American leaders his support of their regional agreements and returned with new vigor to get fast-track passed through congress.

U.S. Democrats want environmental guidelines included in free trade pacts, and labor unions are opposed to any free trade agreement, which created a stalemate in congress and an eventual postponement of fast-track legislation until 1998. Important differences underlie the two nations discussions on a FTAA, namely Brazil's unwillingness to slash tariffs immediately, in part to prevent Brazil's trade deficit from widening further, but primarily to coordinate documentation and eliminate subsidies.

Trade Barriers and Regulations: Import Licensing

On January 2, 1997, the Secretariat of Foreign Trade implemented a computerized trade documentation system (SISCOMEX) to handle import licensing. Although import licenses are required for virtually all products, licensing generally has not posed a barrier to exporting to Brazil. Licenses for most products are issued automatically. However, in a move that was presented as an attempt to reduce the high prevalence of under-invoicing, in December 1997 the government removed over 300 products from lists of products receiving automatic licenses and required various ministry approvals prior to shipping. Specifically, Foreign Trade Office (DECEX) of Ministry of Industry and Commerce issued a list of imported products that are subject to prior approval before importing into Brazil. These products included food and wine, chemicals, petroleum and energy products, tapes and CDS, some textiles and vehicles. This new measure allows the Government of Brazil greater control over imports, before they reach Brazil's shores. Also, DECEX has greater flexibility in denying the licenses of certain products. It is estimated that it will average five days for each license to be granted. Each import will be reviewed by the Ministry under which the product is regulated, i.e. agricultural products will be approved by the Ministry of Agriculture. The Import License must be approved before the shipment

leaves the country of origin. This measure applies for Mercosur countries. Customs officials are also reported to be using a minimum price list to fight under-invoicing.

Used Equipment Import Regulations

The Brazilian Government imposes a series of restrictions in the importation of used equipment, parts, pieces and accessories. Regulation No. 370 (Portaria) of the Brazilian Ministry of Industry, Commerce and Tourism dated November 28, 1994 establishes the rules and regulations for importing these products into Brazil. Transfer of manufacturing plants from overseas to Brazil that generate new jobs, increase exports and result in cost reduction are exempt of these restrictions. Because of the substantial price difference between used and new machines, there is a niche market for used machines in Brazil although the procedures for gaining import approval are complicated. Import duties on refurbished machines are the same as on new products; however, even when the new machine is exempt of the Tax over Industrial Product (IPI), the tax is levied on imported used machine. Imports of used automobiles and used consumer goods are not allowed into Brazil.

Tariffs

Tariffs, in general, are the primary instrument in Brazil for regulating imports. For 1997, the average tariff was 13.8 percent and the median tariff rate was 14.0 percent. Brazil and its Southern Common Market (MERCOSUR) partners, Argentina, Paraguay, and Uruguay, implemented the MERCOSUR common external tariff (CET) on January 1, 1995. In response to an import surge and the resulting large monthly trade deficits in late 1994 and early 1995, in March 1995 the government raised import tariffs significantly on a range of consumer durable goods, including

automobiles, motorcycles and toys. The new tariff levels, as high as 70 percent on some products, were to remain in effect until April 1996. However, in 1996 the government decided to maintain high tariff levels for both autos and toys until the year 2000.

In November 1997, after consulting with its MERCOSUR neighbors, Brazil implemented an across-the-board increase on all tariff items (inside and outside the CET), raising the ceiling from 20 to 23 percent. Only energy inputs such as coal and petroleum and agricultural inputs such as seeds were exempted. While the tariff increases have nominally affected capital goods, which constitute approximately 40 percent of U.S. exports to Brazil, the government's "ex-tarifario" regime has traditionally exempted capital goods. This regime expired at the end of 1997. The Government of Brazil issued a new regime exempting capital goods not available domestically, effective January 1, 1998. The new regime reduces tariffs as high as 20 percent down to 5 percent. Industry reports that tariffs remain high on certain food and chemical products.

The CET currently covers approximately 85 percent of 9,000 tariff items; most of the remaining 15 percent will be covered by 2001, and all will be covered by 2006. The CET levels range between zero and 23 percent, with the exception of tariffs on telecommunications equipment, computers, some capital goods, and products included on Brazil's national list of exceptions to the CET, such as shoes, automobiles and consumer electronics. These tariffs are generally higher. For products covered by the CET, the maximum Brazilian tariff is 23 percent, the most commonly applied tariff is 17 percent, and the average CET tariff is 14.7 percent.

In December 1995, the government issued regulations establishing investment incentives for the automobile sector that do not appear to conform to Brazil's WTO obligations. These measures require firms to invest in Brazil and maintain specified levels of local content in order to qualify for lower duty rates on imports of vehicles, parts and materials. The United States and Japan requested WTO consultations on this issue in August 1996, contending that the regime did not comply with WTO obligations. In October 1996, the United States initiated a Section 301 investigation into Brazil's practices. In March 1997 the United States and Brazil signed an agreement settling the dispute. Brazil committed to terminate the regime by December 31, 1999, to accelerate the deadlines for companies to apply under the regime and not to extend the trade-related investment measures to Brazil's MERCOSUR partners when they unify their auto regimes in the year 2000.

CHAPTER IV

TRADE LIBERALISATION: A QUANTITATIVE ANALYSIS

Latin American policy-makers were exposed to a multiple set of pressures during the 1970s and 1980s. Economic and social distortions and inefficiencies, combined with external constraints aggravated by the intense movement in the international commodities market and by financial difficulties consolidated the need to promote the reforms in these economies. In Latin America, 1990s is considered to be the decade of economic reforms. Although some action took place in the late 1980s but the most significant steps related with privatization and trade liberalization happened during the 1990s. This decade has been the turning point in the economic history of Brazil also. During the 1990s, the Brazilian economy opened up to trade in goods and services after remaining closed for four decades with major presence of State as producer of goods and services.

The literature on policy reforms often adopts a taxonomic approach which identifies several levels of reforms. According to this view, Brazil completed its first generation reforms starting with trade policy reforms and the privatisation of state firms in the late 1980s, but intensified the whole process during the early 1990s.¹ Trade liberalization started in Brazil in 1987, with the first change in the thirty years of nominal structure of tariff and a phasing down of tariff rates, which had been accelerating since 1990.² The average simple (non-weighted) nominal tariff rate was

¹ Baumann Renato, "Brazil in the 1990s: An Economy in Transition" (Palgrave), 2000 pp 6-7

² A full account of the change in the trade policy in the Nineties would also have to consider that for the first time in its history Brazil was committed to a regional integration process with some important additional consequences

reduced to 13.9 % in the period 1997-98 in compared to 33.4% during 1988-90. 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 the monopolistic positions and using trade policy as a supplementary tool for price stabilization. The argument behind this is that trade liberalization will increase competition amongst the domestic producers and hence they would charge competitive price. Trade reform in 1990 was broadened and all sorts of non-tariff barriers were eliminated and a number of incentives were provided to the exporters.

Trade Performance of Brazil

The performance of exports in Brazil during the 1990s is apparently associated with the pattern of specialization. Though there was a high share in the export of industrial goods but the export bill is largely characterized by the export of the natural resource intensive commodities and the energy intensive or labour intensive products.

The share of Brazilian exports in total world exports remained close to 1% throughout the 1990s. The highest rates of average annual growth of exports between 1990 and 1996 were achieved by sugar and wood (19%), meat (14%), chemical products (14%), vegetable oils, vehicles and auto parts (about 9% each). The value of total exports increased by 5.7% in 2001. Commodities were the strongest performers, with growth of 22% in comparison with a small upturn in manufactures (1.1%) and a decline in semi-manufactures (3%). The higher value of commodity exports was attributable to a 33.3% increase in volume led by soyabeans, maize, meat and crude petroleum. The positive effect of the volume increase was attenuated by steep declines in international prices. The price downturn was 3.5 % for total exports, 8.4 % for commodities and 10.5 % for semi-manufactures. The prices for manufactured goods rose slightly at

0.3% whereas exports of semi-manufactures showed an 8.4 % volume increase. In the table given below the major sectoral composition³ of Brazilian exports during the period 1980-2001 are presented.

Table1: Brazil: Sectoral Export Composition during1980-2001

(% share)

Year	Agriculture	Mining quarry	Manufacturing
1980	19.9	9.2	70.9
1981	13.5	10.0	76.6
1982	16.1	11.6	72.3
1983	17.6	8.2	74.1
1984	16.1	7.2	76.7
1985	18.0	7.5	74.5
1986	15.6	3.5	80.9
1987	15.1	2.9	82.0
1988	12.2	2.9	84.9
1989	11.8	7.8	80.4
1990	10.8	9.3	80.0
1991	10.6	9.8	79.6
1992	9.3	7.5	83.1
1993	9.1	7.0	84
1994	11.6	6.3	82.1
1995	9.6	6.6	83.8
1996	9.8	6.7	83.5
1997	13.5	6.3	80.2
1998	12.3	7.3	80.4
1999	11.6	6.7	81.7
2000	10.0	6.9	83.1
2001	11.1	7.2	81.6

Source: United Nations "International Trade Statistics Year Book", 2001

From the table it is observed that the share of the manufacturing sector in the total exports is the highest. This share has gone up from 70 percent in the 1980 to about 85 percent in 1988, the year when trade liberalization took place in Brazil. The share has marginally decreased to 81 percent in 2001. In the composition of manufacturing exports food and beverages manufacturing and the basic metals has the highest share, though there is a fluctuation in the share of these items.

³ The main sector classification is done according to the International Trade Statistics Year Book classification.

Trade reform in Brazil was significant and helped to increase the import component of domestic production. The most intensely demanded import items were raw materials, intermediate products, capital goods and automobiles. It is observed that after trade surplus, which averaged US\$ 13 billions in 1992-94, turned into trade deficits averaging US\$ 6 billions in 1995-98. The table given below portrays the sectoral composition of imports by broad economic categories for a period of twenty years starting from 1980 till 2001.

Table2: Brazil: Sectoral Import Composition 1980-2001

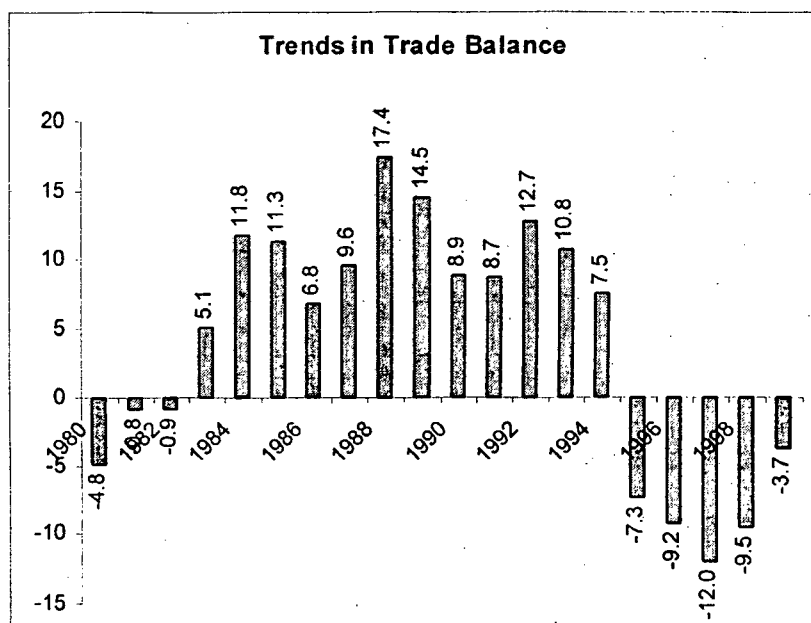
(% share)

Year	Food and Beverages	Industrial Supplies ⁴	Fuels	Machinery	Transport	Consumption Goods
1980	8.2	27	43	15.7	4.5	1.6
1981	7.9	21.1	50.4	15.6	3.6	1.4
1982	8.3	18.6	53.4	14.6	3.3	1.7
1983	8	17.2	55.8	12	5	1.8
1984	8.8	20.8	52.7	11.5	4.7	1.4
1985	8.5	22.6	47.1	14.3	5.3	2
1986	13.1	32.1	26.5	19	6.3	3
1987	7.4	30.5	32.3	19.4	7.5	2.8
1988	4.8	32.3	29.9	25	4.9	3
1989	9.4	34.1	25.5	21.4	5.7	3.9
1990	8.7	31	26.6	23.3	5.9	4.4
1991	10.4	32.2	23.2	22.6	6.6	4.9
1992	8.8	32	22.8	23.8	8.3	4.2
1993	8.6	32.4	20.5	23.6	9.9	4.9
1994	10	30.9	14.7	26	12.3	6.1
1995	10	30.1	12.0	25.5	13.8	8.5
1996	10.2	29.3	13.0	27.8	11.0	6.5
1997	8.5	28.6	11.5	29.9	13.4	6.7
1998	8.9	28.8	9.1	30.1	15.1	7.5
1999	7.5	29.2	11.2	31.1	13.4	8.4
2000	6.2	29.6	14.9	30.0	12.6	8.3
2001	5.5	29.4	14.1	32.0	12.4	8.5

Source: United Nations, "International Trade Statistics Year Book", 2001

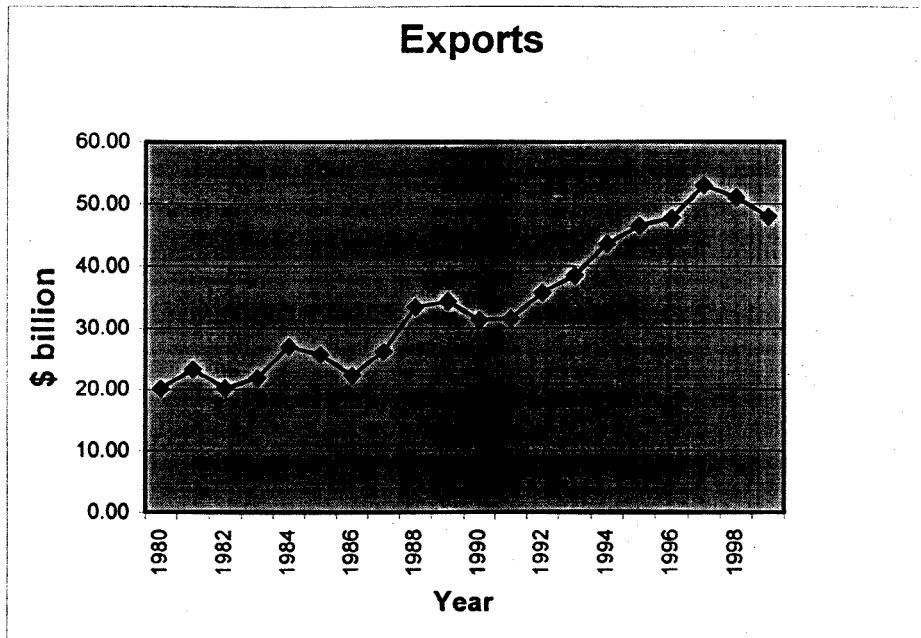
⁴ It is the products and raw materials supplied by the industries

The overall trade balance situation has deteriorated after the trade liberalization. The merchandise trade balance was in equilibrium at the end of the first half of 1996, but shifted to a deficit of US \$ 5.1 billion by the end of the year, owing to a substantial increase in imports. Exports recorded only modest growth of 2.7% in 1996. The current account thus showed a deficit of US\$ 24.3 billion, nearly 4% of GDP. The merchandise trade deficit was close to US\$ 5 billion in the first half of 1997, while the current account deficit more than doubled with respect to the same period of the preceding year. Hence it can be said that in the initial years starting from 1988 till 1994 the trade balance in Brazil shows an improvement from 1996 onwards there starts a negative trend in the trade balance in Brazil.⁵

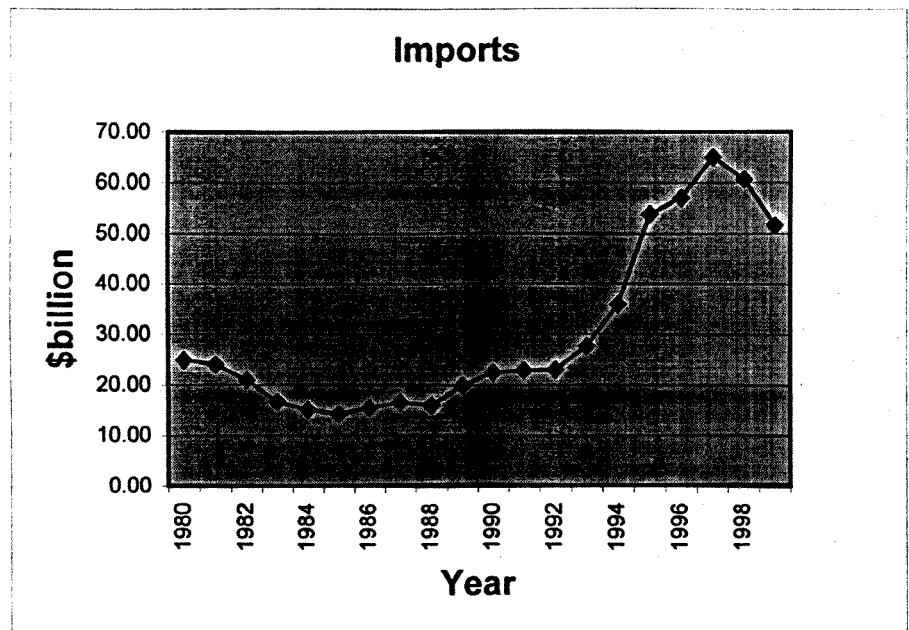


Source: International Financial Statistics CD Rom (2001)

⁵ United Nations, *Economic Survey of the Latin America and the Caribbean*, (Santiago, Chile), 1997



Source: International Financial Statistics CD Rom (2001)



Source: International Financial Statistics CD Rom (2001)

Output and Employment Effect of Trade Liberalisation

The 1990s have proved to be one of the major turning points in Brazilian economic history. Brazil started out the decade as an economy close to the international trade

flows and capital, in which the State played a major role as a producer of goods and services, and with a trend toward growing inflation. As the decade progressed, it moved to become an open economy reducing commercial protection and deregulating capital flows, while diminishing the role of state as a producer of goods and services through privatization. This culminated in a stabilization programme based on exchange anchor and supported by an opening-up of trade and the financial market. These structural changes have strongly affected the pace and pattern of growth in the economy. Brazil was plunged into deep recession between 1990 and 1992 when the level of activity slumped and unemployment swelled. As from 1993, this trend was reversed and growth resumed until 1997⁶.

The performance of the Brazilian metropolitan labour market in the 1990s should be divided into two distinct sub-periods. The first goes from the 1990 to the stabilization of the economy in 1994. This is marked by a deep recession, a surging rate of open unemployment and extremely high levels of inflation. The second sub-period starts from 1994 and extends to the 1998.

The decade of 1990s began in the Brazilian economy with a phase of deep recession following a period of rampant inflation in the 1980s (price increased to 80% a month). The rate of open unemployment, which stood at 4.0% in 1990, rose to 6% of the workforce in the second half of the 1992. There was reduction of employment in the industrial sector despite of increased output whereas employment in the commerce and the services sector began to increase. Employment shrinkage in the industrial sector can be attributed to foreign technology. The opening of the economy obliged Brazilian industry to introduce new technologies and new forms of labour

⁶ More markedly after the stabilization plan was introduced

organization designed to raise productivity in order to survive. The offshoot was a systematic reduction of industrial employment.

Thus, in terms of major labour market trends in first sub-period, it can be stated that:

- a) Employment in industry shrank while employment in the commerce and services sectors expanded, keeping pace with the level of economic activity
- b) The rate of open unemployment tended to increase in the early 1990s due to recession but mostly because the labour market was slow to adjust to the structural changes that took place at the turn of the decade following the establishment of free trade. Once growth resumed in mid 1992, unemployment subsided slightly
- c) Finally, workers real earnings in the commerce and the services sectors rose inversely to the evolution of the rate of open unemployment. The change in relative prices in favour of goods destined for sale (industrial goods in particular) prevented industrial worker's real earnings from sliding despite the fall in the level of employment. At the same time, the real cost of labour in this sector dropped significantly.

By the beginning of 1995, the rise in the level of overall employment was sufficient to produce abatement in the rate of open-unemployment. In the wake of the Mexico crisis, the rate of open unemployment started to increase and became once more acute in 1997 owing to stagnation in aggregate employment. Industrial employment tends to diminish as from 1995, despite the growth in output, whereas employment in commerce and the services sector increases sharply until the end of the 1996 when a clear trend toward stagnation sets in. Thus in the immediate wake of stabilisation. A number a study has been carried out in scholarly writings to evaluate the effect of trade liberalization. Most of these

studies mainly focus on issues related to wage inequality and labour market adjustment. In this study the effect of the effect of trade liberalization is assessed on domestic production and on the overall distribution of income.

Trade Liberalisation and its Effect on Domestic Production: Input-Output Analysis

Input-Output(I-O) table of the Year 1996⁷ is used to analyse the effect of import liberalization on domestic output.⁸ The underlying assumption behind using the I-O table is that the producers have enough capacity to produce in the economy. The economy in which they are operating is a demand constraint economy and there is no supply constraint in the economy.

The raw data obtained from the IBGE⁹ was in the three digits and four-digit level. But the rows and column vectors are not under same classification three-digit and four- digit data set hence the data set was aggregated at two-digit level. A forty -three by forty -three matrix was constructed from the data set. In this matrix the products can be classified under the following categories: a) Agriculture and Cattle Raising; b) Mining and Oil; c) Manufacturing; d) Industry c) Services. An A-matrix is constructed from the given I-O matrix (by dividing the row elements with the column total of each sector) and correspondingly an I-A matrix is constructed with the help of an I-matrix (identity matrix where the diagonal elements are one and the rest of the columns and rows are zero). The main purpose of constructing the I-A inverse matrix is to measure the direct as well as the indirect effect of trade liberalisation. For example there is a producer of wooden sheets, in the economy and suppose there is an

⁷ The latest Input-Output table available with the IBGE while conducting this study is 1996.

⁸ An I-O table represents the flow of income and expenditure of the economy. The column total represents the earnings of the sector and the row total represents the expenses of the sector. It provides the basic framework for construction of a Social Accounting Matrix.

⁹ Institute of Brazilian Geography and Statistics

increase in the import of furniture after trade liberalisation. This will affect the producer since his sales will decline due to decrease in the demand for furniture in the domestic market. Similarly when there is a rise in exports of furniture the producer of wooden sheets will be benefited with the increasing sales of furniture. The I-A inverse matrix is used to capture the total effect of the change in Policy.

There are two main components of this analysis, which are computed to examine the impact of trade liberalisation on the overall export and import performance of the industries. One component is the import-penetration ratio¹⁰ and the other component is the export-production ratio. These two ratios are calculated for the year 1985 and 1996¹¹ respectively. Further ΔM and ΔX has been computed from the two ratios.

$$\Delta M = \text{Actual Import} - \text{Anticipated Import}$$

$$\Delta X = \text{Actual Export} - \text{Anticipated Export}$$

When the policy of trade liberalisation is implemented in an economy there is an overall increase in the import and export of different sectors of the economy. A portion of increase in the import and export is due to trade liberalisation and a part is due to an increase in the size of the domestic market of the economy. In this analysis an attempt has been made to assess the amount of increase in total import and export inspite of the increase in the domestic market.

ΔM and ΔX are multiplied with the I-A inverse matrix to examine the final effect of trade liberalisation on the domestic production. The table given below shows the effect of import liberalisation in different sectors of the Brazilian economy. It can be observed form the table given below that import liberalisation has reduced the

¹⁰ Import-Penetration Ratio= $\text{Import} / \{\text{Production} + (\text{Export}-\text{Import})\}$

¹¹ These two points of time are chosen because 1985 is the landmark year of civilian rule in Brazil after a prolonged military rule and the year 1996 is a decade when the impact of trade liberalisation and Real Plan can be examined combinedly.

domestic production of the manufacturing sectors particularly electronic equipments by \$ 19.16 billion and production of machinery and tractors \$ 9.02 billion. The production of textile industry was adversely affected by \$ 7.90 billion amongst various industries. In comparison with the other sectors of the economy the domestic production of agricultural sector has declined marginally. The decrease in the production of motorcars, buses and lorries stressed on the fact that there was consumption boom of imported capital goods in Brazil. This proved the historical fact of consumption-led growth of Brazilian economy unlike the investment-led growth of the South Asian countries.

Table 3: Impact of Import Liberalisation on Different Sectors of the Economy

(Figures in \$ billion)

Different Sectors of the Economy	Change in Production¹²	Total Production¹³
Agriculture and Cattle Raising	-0.42	26.95
Mineral Extarction	-1.24	1.99
Petroleum & Gas	-0.06	-3.98
Production of Non Metallic Mineral	-0.97	1.55
Steel Metallurgy	-1.54	3.05
Metallurgy of Non- Ferrous	-1.30	1.53
Production of other Metallurgic Products	-3.09	2.48
Production of Maintainence of Machinery and Tractors	-9.02	14.52
Production of Electric Material	-1.63	8.01
Electronic equipments	-19.16	14.63
Production of Motorcars, Lorries and buses	-8.50	25.87
Production of spare parts and other vehicles	-7.30	3.75
Wood and Furniture	-0.41	9.69
Cellulose, Paper and Graphic Industry	-4.21	4.66
Rubber Industry	-2.10	-0.12
Production of Chemical Elements	-4.22	9.45
Production of distinct Chemical	-3.41	-0.35
Pharmacutic& Perfumery Industry	-4.52	13.62
Industry and Plastic Articles	-2.02	0.55
Textile Industry	-7.90	3.74
Production of Dressing Articles	-1.05	13.30
Shoes Industry	-0.75	5.62
Coffee Industry	-0.03	4.67
Processing Vegetable Products	-2.57	21.23
Dead animals	-0.65	19.81
Milk industry	-2.00	9.35
Prodn of sugar	-0.08	3.37
Prodn of vegetables	-1.59	6.48
Other food products	-3.26	25.51
Different industries	-6.34	7.41

¹² Change in production refers to the effect of actual imports minus the anticipated imports (for the year 1985 and 1996) multiplied with the I- A inverse matrix of the year 1996.

¹³ The total production is of the year 1996

Table 4: Impact of Trade liberalisation on Export of Selective Sectors of the Economy

(Figures in \$ billion)

Different Sectors of the Economy	Change in Production ¹⁴	Total Production ¹⁵
Mineral Extraction	1.21	1.99
Steel Metallurgy	1.58	3.05
Metallurgy of Non- Ferrous	1.50	1.53
Production of Electric Material	1.67	8.01
Production of spare parts and other vehicles	4.07	3.75
Wood and Furniture	1.43	9.69
Cellulose, Paper and Graphic Industry	2.44	4.66
Rubber Industry	1.80	0.12
Production of Chemical Elements	1.38	9.45
Production of distinct Chemical	2.45	-0.35
Textile Industry	1.03	3.74
Shoes Industry	1.70	5.62
Production of sugar	4.30	3.37

It can be observed from the above table that there is an increase in the exports of spare parts and other vehicles by \$ 4.07 billion between the years 1985 and 1996. The manufacturing of sugar shows a similar increase of \$ 4.30 billion after liberalization. The other sectors exports have gone up marginally. The net effect of trade liberalization is dubious to be explained clearly because of the erratic behaviour of the export and import flows. In case of exports the sectors which have shown a rising trend tend to bring a negative effect when it is combined with the imports. But only in case of the sugar manufacturing it shows a gain of about \$ 3 billion.

¹⁴ Change in production refers to the effect of actual exports minus the anticipated exports (for the year 1985 and 1996) multiplied with the I- A inverse matrix. of the year 1996.

¹⁵ The total production is of the year 1996

Table 5: Structure of the Brazilian Economy in 1996 ¹⁶

Sector	Output (X)	Value Added (VA)	Final Demand (Q)	Exports (E)	Imports (M)	Export/Output (E/X)	Import/Final Demand (M/Q)
Agriculture	7.16	8.30	4.30	1.96	3.93	0.98	7.47
Mining and Oil	6.14	1.76	2.46	8.02	15.15	4.69	50.24
Manufacturing Products Industry	29.42	16.23	26.97	57.95	53.07	5.66	12.39
Services	10.37	6.45	8.25	16.34	12.51	7.07	16.08
Total	53.73	71.83	60.88	15.73	15.34	1.05	2.06
Total	100	100	100	100	100		

The overall structure of the Brazilian economy during the year 1996 is portrayed in the above table. Although the earlier analysis of the Input-Output table states that there is an overall decline in domestic production due to trade liberalisation but still the predominating sectors in the economy in terms of final demand and value added are the Manufacturing Products and the Services. It further focuses on the fact that the share of imports out of final demand for Mining and Oil is as high as 50%.

There are other effects of trade liberalisation. These are the efficiency enhancing effect mainly the technical efficiency effect, allocative gains effect of liberalisation and the effect of restructuring of products within the industry. However, in this study these effects are not considered while undertaking this analysis.

¹⁶ The table is computed on the basis of the 1996 Input Output table of Brazil prepared by the IBGE. The shares are given in the table.

Distributional Effect: A Social Accounting Matrix Approach

The distributional effect of the trade liberalization in Brazil is analysed with the Social Accounting Matrix of Brazil. A Social Accounting Matrix (SAM) is a square matrix describing economic transactions quantitatively. It represents the different sectors, agents, and institutions of an economy at the desired level of disaggregation. Once a SAM for a particular year is constructed it provides a static image, or a snapshot, of a country's economic structure.

The structure of a simple SAM is given in the table given below. Each cell represents a payment from a column account to a row account. Activities pay for intermediate inputs and factors of production and receive payments for exports and sales to the domestic market. The commodity account buys goods from activities (producers) and the rest of the world (imports) and sells commodities to activities (intermediate inputs) and final demanders (households, government, and investment). In this simple SAM, sectoral specification, interregional flows, tariffs, indirect taxes, and subsidies are left out. The matrix of column coefficients from such a SAM provides raw material for much economic analysis and modeling. The intermediate-input coefficients correspond to Leontief input-output coefficients. Column coefficients provide the starting point for estimating parameters of nonlinear, neo-classical production functions, factor-demand functions, and household expenditure functions. Given that so many of the model parameters depend on the flows in the SAM, it is necessary to understand thoroughly the data framework.

A Basic National Accounting Matrix

Receipts		Expenditure				
	Activity	Commodity	Factors	Rest of World	Institutions	Trade
Activity		Domestic Sales		Exports		Total Value of Production
Commodity	Intermediate inputs				Final Demand	Total demand
Factors	Value-added					Total Value-added
Rest of World		Imports				Foreign Exchange Out Flow
Institutions			Factor Income	Trade Balance		Gross National Income
Total	Total costs	Total absorption	Total factor income	Foreign exchange inflow	Total absorption	

In this social accounting matrix several household types are taken into consideration so that welfare implications on different income groups can be analysed.

The main central government agency involved in the collection, analysis, and dissemination of such information is the Institute of Brazilian Statistics and Geography. (Instituto Brasileiro de Geographia e Estatistica, IBGE), which reports to the Ministry of Science and Technology and consists of a number of national directories responsible for data collection. Current IBGE national accounts are based on the following sources.

- a) The 1991 demographic survey, which provides IBGE with information regarding total population by region and the distribution of employment between activities

- b) Household surveys for 1987 and 1996 are taken for nine major urban areas in Brazil.¹⁷
- c) External data is based on customs declarations.
- d) Industrial data are collected from a variety of sources including labor force and salary surveys, industrial production surveys, surveys of the construction industry, intermediate consumption and inventory measurements, and a business enterprise survey.¹⁸

In this study a SAM multiplier analysis of the Social Accounting Matrix has been done. In the SAM multiplier analysis some accounts, in this case government, capital and ROW (Rest of the World), accounts are assumed to be exogenous. The algebraic SAM can be transformed into a multisectoral model of the economy in which the interlinkages among sectoral production, household, incomes, expenditures and macroeconomic balances are systematically taken into account. There are 62 endogenous account of the Brazilian SAM, including 24 commodities, 15 activities, 18 factors of production and 5 household groups (given in Appendix). Analytically the total income (row sum) in each endogenous account is equal to the sum of the expenditure co-efficient and corresponding income plus the total exogenous income from the government, capital, and ROW accounts; that is,

$$Y = A.Y + X \text{ ----- (1)}$$

¹⁷ Since resources are limited and population density is low outside the cities, neither survey ventured deeply into rural areas. It is a considerable drawback that the standard of living and consumption patterns of rural households are only partially represented the within the sampling frame of the major cities surveys.

¹⁸ The data are compiled in accordance with the United Nations System of National Accounts (SNA) to as great degree as possible

where Y is a column vector of total incomes from the 62 endogenous accounts (62×1), X is a column vector of total income from exogenous accounts (62×1), and A is the expenditure co-efficient matrix pertaining to the endogenous accounts.

Solving for Y in equation (1) yields:

$$Y = (I - A)^{-1} \cdot X = M \cdot X \text{ -----(2)}$$

where M is the SAM multiplier matrix. Equation (2) can be used to calculate the endogenous incomes associated with any constellation of total exogenous incomes, given M . The effects on Y arising from any given changes in X (such as exogenous income injection in any production sector) can be derived from equation (2).

Each cell in the multiplier matrix can be interpreted to indicate the total effect (direct and indirect) income change in the row-account induced by an exogenous unit-income injection in the column account. This interpretation is subject to the familiar limitations of conventional SAM-based analysis, including the assumption of purely demand-driven adjustments, absence of relative price and monetary effects, externally determined exports, and exogenous government and capital accounts. Since supply of goods and services are assumed to be perfectly elastic, they expand readily in response to increase in demand at given fixed prices. The SAM model (multiplier analysis) thus leads to a larger quantity (and income) responses to exogenous shocks in economies operating at full employment compared with the corresponding results from a CGE (computable general equilibrium) model.

In this analysis it is observed that the urban rich-income household and the nonagricultural capital are the two mostly affected sectors of the trade liberalisation. In Brazil the richest 10% of individuals own nearly half of the aggregate per-capita income. But in this analysis it is observed that the urban rich-income household and the most affected household due to trade liberalization. This process may be credited

not only to the effects of economic reforms of the Collor administration (such as opening of the economy) which broke the monopoly power of the industrial elite – including both the entrepreneurs and unionized workers. The freezing of 80% of the means of payment (M4) affected wealthy groups more intensely. During the second part of the 1993-1997 reform period, there was a 23% increase in the number of the rich but the whole 1990-97 period the number of rich people actually fell by 17%.

The actual income of the urban rich household was \$ 252 billion, the income was reduced by \$ 9 billion. Similarly in case of non-agricultural capital there was a reduction of \$ 11 billion dollar from the actual income of \$247 billion. Generally, in case of trade liberalization when income from capital assets is affected, a part of the burden is shifted to the labour and in the sectors where a heavy income loss is incurred the burden is shifted to the other sectors. But in this analysis, it has been focused what would be the impact of trade liberalisation if the burden is not shifted to the different sectors

Table 6: Distributional Effect of Trade Liberalisation¹⁹ on different income groups

(figures are in \$billion)

Sectors	Change due to import	Change due to export	Net change	Actual Income ²⁰
Urban skilled food-processing labor	-0.12	0.00	-0.12	2.95
Urban unskilled food-processing labor	-0.08	0.00	-0.08	1.78
Urban skilled heavy industry labor	-0.33	0.00	-0.33	2.52
Urban unskilled heavy industry labor	-0.14	0.00	-0.14	1.09
Urban skilled light industry labor	-2.00	0.03	-1.97	37.37
Urban unskilled light industry labor	-0.44	0.01	-0.44	8.26
Urban skilled construction labor	0.00	0.00	0.00	3.17
Urban unskilled construction labor	0.00	0.00	0.00	2.60
urban skilled services labor	-4.24	0.03	-4.20	107.92
urban unskilled services labor	-1.57	0.01	-1.56	47.27
rural skilled labor	-0.08	0.00	-0.08	2.12
rural unskilled labor	-0.58	0.00	-0.57	14.31
small farm agricultural capital	-0.32	0.00	-0.32	7.99
large farm agricultural capital	-0.35	0.00	-0.35	7.48
non-agricultural capital	-11.04	0.11	-10.93	247.23
arable land	-0.26	0.00	-0.26	5.57
grassland	-0.38	0.00	-0.37	9.56
forested land	-0.07	0.00	-0.07	1.53
urban poor household	-2.46	0.02	-2.44	73.45
urban middle	-3.92	0.04	-3.88	114.11
rural poor	-0.32	0.00	-0.31	7.41
rural medium	-0.89	0.01	-0.89	24.77
high income household	-8.98	0.09	-8.89	252.06
enterprises	-11.71	0.12	-11.59	252.65

¹⁹ This is calculated from the Brazil SAM 1996

²⁰ This is the income earned by each sectors

Table7: Distributional effect of trade liberalization on Different Activities and Commodities

(figures are in \$billion)

Sectors	Change due to import	Change due to export	Net change	Actual Income
Smallholder annuals	-0.61	0.00	-0.60	14.57
Large farm annuals	-0.96	0.01	-0.95	17.72
Smallholder perennials	-0.16	0.00	-0.16	6.36
Large farm perennials	-0.12	0.00	-0.12	4.65
Smallholder livestock	-0.65	0.00	-0.64	16.12
Large farm livestock	-0.61	0.00	-0.60	15.66
Smallholder other agric products	-0.17	0.00	-0.17	2.32
Large farm other agric products	-0.12	0.00	-0.12	1.66
Forest Products	-0.23	0.00	-0.22	4.74
Food Processing	-4.07	0.03	-4.05	85.00
Mining and Oil	-4.75	0.00	-4.75	35.86
Industry	-22.19	0.32	-21.87	402.83
Construction	-0.11	0.00	-0.11	76.00
Trade and Transportation	-7.56	0.05	-7.51	88.27
Services	-10.86	0.10	-10.76	380.92
Coffee	-0.21	0.00	-0.21	4.50
Cocoa	0.00	0.00	0.00	0.49
Corn	-0.30	0.00	-0.30	6.32
rice	-0.13	0.00	-0.13	2.77
beans	-0.08	0.00	-0.08	1.85
manioc	-0.08	0.00	-0.08	2.00
other perennials	-0.08	0.00	-0.07	6.21
other annuals	-0.14	0.00	-0.14	7.02
sugar cane	-0.30	0.00	-0.30	7.39
soy	-0.50	0.00	-0.50	4.31
horticultural products	-0.08	0.00	-0.08	1.72
milk	-0.31	0.00	-0.31	7.93
livestock	-0.66	0.00	-0.66	17.47
poultry	-0.29	0.00	-0.28	6.50
extractivist forest products	0.00	0.00	0.00	0.62
logging	-0.23	0.00	-0.23	3.85
deforestation	0.00	0.00	0.00	0.55
other agricultural products	-0.35	0.00	-0.35	4.84
Processed food	-4.16	0.03	-4.13	86.69
mining and oil	-5.28	0.00	-5.28	40.05
industrial products	-24.39	0.35	-24.03	442.42
construction	-0.11	0.00	-0.11	76.00
trade and transportation	-7.71	0.05	-7.66	90.20
services	-10.97	0.10	-10.87	386.07

Having undertaken the SAM multiplier analysis of the Brazilian Social Accounting Matrix it is shown that the trade liberalization has affected the different sectors of the economy in diverse manner. The income of the rural poor has not declined much after liberalization. The low-skilled workers of different industrial sectors are also not affected adversely. It can be said that the income level of these groups of the economy is very low to measure the actual effect of liberalization on them.. Liberalization or no liberalization, these strata of population has low income and are hardly affected by trade liberalization. The affected section of the economy is the middle class due to a decrease in their purchasing power. In this study, it has been stressed that if the high income groups and entrepreneurs generally shift the burden of liberalization on the other sections of the economy, the economy as a whole is not Pareto optimal.

CHAPTER V

CONCLUSION:

Proponents of trade liberalization have based their arguments on the presumption that import competition stimulates domestic producers to improve their efficiency and to catch up technologically¹. There is however more skeptical opinions² and the issue remain to be resolved by empirical studies. The experience of the post 1990 Brazilian trade liberalization is very interesting, as it enables us to study the impact on a relatively large and well developed, and highly protected, industrial structure. The leading Brazilian manufacturing firms responded to trade liberalization after 1990 with an impressive growth in productivity, though some of that growth also represented the effects of general liberalization of the economy and a recovery from the adverse effects of the policy induced recession of 1990-91.

Despite Policy reform- including macroeconomic stabilization, trade and capital account liberalization, and privatization -, growth in Brazil did not recover and return to the growth rates of the 1960s and the 1970s. This suggests that deeply rooted causes hold back income growth in Brazil. Trade liberalization could not do the wonder that was expected. The more efficient firms performed relatively better and

¹ J. R. Tybout "Researching the Trade-Productivity Link: New Directions", World Bank Working Paper in Trade Policy No 638, (Washington DC)1992

² D Rodrik, "Closing the productivity gap: does trade liberalization really help?" Helleiner, G. K ed; Trade Policy, Industrialization and Development: New Perspectives. (Oxford: Clarendon Press), 1992.

were able to use the imported technologies productively. At the same time, there was displacement of workers in manufacturing firms due to trade reform.

Trade openness can be viewed as a force that brings an economy's effective production possibility frontier into closer reach of its potential production frontier. In the most favourable case, an open country's production frontier would get into and remain in synchronization with advances in the worldwide production frontier. However, the skill-bias in technology use did not undergo detectable changes in Brazil during the 1990s. This suggests that very similar production technologies remained in place after trade reform. Some measures suggest that Brazil now trails further below worldwide best practice than three decades ago and that Brazil faces an ever-widening gap to best practice. However trade liberalization in Brazil during the 1990s did exert a detectable and immediate effect on productivity change. The competitive push from the world import markets pressured firms to raise productivity. In addition the exit probability of inefficient firms rose with competition from abroad and contributed positively to aggregate productivity.

The reforms that have taken place in Brazil since the late 1980s are quite illustrative in several aspects. These reforms have at least two characteristics, which are not considered in the usual models. Firstly, they have taken place alongside a process of regional integration (Mercosur), and the commitments associated with that process were significant, at least for foreign trade policies. Secondly, Brazil has a federal structure, and this has major implications for the outcomes of several reforms, such as the reforms of the social security system and the financial sector. Thirdly, trade reform has preceded every other reform. But there were clearly two stages- until mid

1994 and thereafter the turning point have been having been the adoption of a drastic domestic price stabilization programme.

Though the Brazilian experience with reforms is rich but the post reforms experience varied and was mostly concomitant with a stabilization programme. The 1990s have been a period of remarkable change since the Brazilian economy has completed the so-called first generation reforms by that time. However everything did not proceed the way one would have expected.

The two spates of intense import tariff reduction that took place in the year 1990 and 1994 were mostly designed as a part of price stabilization programmes. As a consequence the phasing down of tariff rates was neither instantaneous nor linear over time. Several sectors had to cope up with the situation seesawing sequence of increases and reductions of tariff rates in a relatively short space of time. This mixed signaling imposed a burden on the investors and consumers of imported goods. The positive effects on competitiveness stemming from trade reform were expected to generate positive export performance. The fact that to what extent the easier access to imported goods has helped exports growth is not clear. In any event, high domestic interest rates affected the production of exportable goods, and wage increase coupled with an overrated currency has negatively affected the traders. At the same time, demand for imports boomed leading to larger trade deficits during these years.

In brief, there are seven lessons which can be derived from the Brazilian experience of reforms in the 1990s :

- 1) There are clear gains accruing from the end of the higher inflation but the outcome depends on how stabilization is sustained. Brazil has not adopted a repressive scheme such as Chile in the 1980s. Instead in the Brazilian

experience since the mid- 1990s, there has been a nominal exchange rate anchor, high positive real interest rates, a real wage squeeze in the public sector combined with quantitative adjustment in labour market, all of which imposed the costs of impairing competitiveness and performance in the medium to the long-run.

- 2) Opening of trade has increased producer and consumer surpluses but it imposed excessively high costs on some sectors.
- 3) In order to avoid excessively high interest rate and reinvigorate public sector action fiscal adjustment is required. But adjustment should be devised in such a way so that it does not impose excessive social cost on private financing of social expenditure.
- 4) Financial sector adjustment is crucial in a world of intense capital flow 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 affects of recent external crises.
- 5) The process of reforms once initiated calls for its own continuity at progressively higher stages if a reversal is to be avoided. Therefore economic context with low inflation and open economic relation 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.
- 6) Relying on external savings to resume an investment cycle is risky since decision by foreign investors are taken on the grounds of what happens to domestic and external variables.

The intensity and multiplicity of the reforms undertaken in Brazil in the 1990's were such that it is perhaps early to appraise them fully. A number of policy changes- such as the privatization of the public sector 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 sixteen years, since the first move of liberalization take place and certainly some of the lessons that can already be identified contribute to our understanding of the adjustment process in developing economy. The Brazilian experience illustrates a case where reforms did not follow the prescribed ideal sequencing, where in some cases there was inadequate signaling to economic agents, but also where the gains that have been achieved might easily be lost in the event of a reversal of these movements.

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Table 1: Intra- and inter-regional merchandise trade, 2002 (Billion dollars and percentage)

Origin	Destination							
	North America	Latin America	Western Europe	C./E. Europe/Baltic States/CIS	Africa	Middle East	Asia	World
Value								
North America	382	152	170	7	12	20	204	946
Latin America	215	54	44	3	4	5	23	350
Western Europe	270	55	1787	168	66	68	208	2657
C./E. Europe/Baltic States/CIS	14	6	176	80	4	7	24	314
Africa	24	5	71	1	11	3	24	140
Middle East	38	3	40	2	9	17	116	244
Asia	394	39	260	21	26	48	792	1620
World	1336	315	2549	282	133	169	1391	6272
Share of inter-regional trade flows in each region's total merchandise exports								
North America	40.3	16.1	17.9	0.7	1.2	2.1	21.5	100.0
Latin America	61.3	15.4	12.6	1.0	1.2	1.3	6.7	100.0
Western Europe	10.2	2.1	67.3	6.3	2.5	2.6	7.8	100.0
C./E. Europe/Baltic States/CIS	4.5	1.9	56.2	25.5	1.2	2.4	7.7	100.0
Africa	17.0	3.3	50.9	0.7	8.1	2.3	16.8	100.0
Middle East	15.5	1.4	16.4	0.8	3.8	7.1	47.4	100.0
Asia	24.3	2.4	16.0	1.3	1.6	3.0	48.9	100.0
World	21.3	5.0	40.6	4.5	2.1	2.7	22.2	100.0
Share of regional trade flows in world merchandise exports								
North America	6.1	2.4	2.7	0.1	0.2	0.3	3.2	15.1
Latin America	3.4	0.9	0.7	0.1	0.1	0.1	0.4	5.6
Western Europe	4.3	0.9	28.5	2.7	1.1	1.1	3.3	42.4
C./E. Europe/Baltic States/CIS	0.2	0.1	2.8	1.3	0.1	0.1	0.4	5.0
Africa	0.4	0.1	1.1	0.0	0.2	0.1	0.4	2.2
Middle East	0.6	0.1	0.6	0.0	0.1	0.3	1.8	3.9
Asia	6.3	0.6	4.1	0.3	0.4	0.8	12.6	25.8
World	21.3	5.0	40.6	4.5	2.1	2.7	22.2	100.0

Table 2 :Merchandise exports of Latin America by product, 2002 (Billion dollars and percentage)

	Value 2002	Share in exports of Latin America		Share in world exports		Annual percentage change			
		1995	2002	1995	2002	995-00	2000	2001	2002
Total merchandise exports	350.3	100.0	100.0	4.6	5.6	10	20	-3	0
Agricultural products	67.5	25.6	19.3	10.0	11.6	1	2	5	4
Food	59.7	21.9	17.0	11.2	12.7	1	0	7	4
Raw materials	7.7	3.7	2.2	6.3	6.8	-2	14	-2	0
Mining products	71.2	23.0	20.3	9.9	9.0	10	46	-14	-3
Ores and other minerals	9.6	3.8	2.8	14.2	15.4	4	16	-5	-2
Fuels	51.7	14.4	14.8	9.0	8.4	14	58	-16	-2
Non-ferrous metals	9.8	4.9	2.8	10.4	8.9	0	19	-10	-5
Manufactures	208.5	49.2	59.5	3.0	4.4	13	19	-2	0
Iron and steel	8.8	3.8	2.5	5.8	6.2	-1	16	-10	19
Chemicals	17.0	5.7	4.8	2.7	2.6	5	14	2	1
Other semi-manufactures	18.8	5.7	5.4	3.3	4.1	7	13	2	2
Machinery and transport eq	116.9	24.0	33.4	2.8	4.6	17	21	-2	-2
Automotive products	37.6	8.5	10.7	4.3	6.1	15	19	1	-3
Office and telecom equip	36.2	5.5	10.3	2.1	4.3	25	25	-1	-4
Other machinery and tran	43.1	10.0	12.3	2.6	4.0	15	20	-5	0
Textiles	4.1	1.5	1.2	2.3	2.7	6	10	-13	1
Clothing	20.9	3.6	6.0	5.3	10.4	21	16	-3	2
Other consumer goods	22.0	4.7	6.3	2.5	4.0	14	19	3	3

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		A-ANNS	A-ANNL	A-PERS	A-PERL	A-LIVS	A-LIVL	A-OAGS	A-OAGL	A-FOR	A-PRFD	A-MIN	A-IND
<i>Smallholder annuals</i>	A-ANNS												
<i>Large farm annuals</i>	A-ANNL												
<i>Smallholder perennials</i>	A-PERS												
<i>Large farm perennials</i>	A-PERL												
<i>Smallholder livestock</i>	A-LIVS												
<i>Large farm livestock</i>	A-LIVL												
<i>Smallholder other agric products</i>	A-OAGS												
<i>Large farm other agric products</i>	A-OAGL												
<i>Forest Products</i>	A-FOR												
<i>Food Processing</i>	A-PRFD												
<i>Mining and Oil</i>	A-MIN												
<i>Industry</i>	A-IND												
<i>Construction</i>	A-CONST												
<i>Trade and Transportation</i>	A-TRAN												
<i>Services</i>	A-SVC												
<i>Coffee</i>	C-COF			0.13	0.11			0.03	0.03		4.66		0.00
<i>Cocoa</i>	C-COC			0.01	0.01			0.00	0.00		0.05		0.02
<i>Corn</i>	C-CORN	0.02	0.13					0.05	0.05		6.55		0.01
<i>rice</i>	C-RICE	0.01	1.03					0.00	0.00		1.74		0.00
<i>beans</i>	C-BEAN	0.19	0.64					0.00	0.00		0.55		0.10
<i>manioc</i>	C-MAN	0.89	0.01					0.00	0.01		0.62		0.11
<i>other perennials</i>	C-PER			0.15	0.10			0.01	0.01		0.65		0.38
<i>other annuals</i>	C-ANN	0.04	0.21					0.02	0.02		2.35		1.12
<i>sugar cane</i>	C-SUG							0.01	0.01		2.12		5.99
<i>soy</i>	C-SOY	0.01	0.25					0.01	0.01		10.87		0.03
<i>horticultural products</i>	C-HORT	0.53	1.08					0.00	0.00		0.19		0.09
<i>milk</i>	C-MILK					0.14	0.35	0.03	0.03		6.68		0.02
<i>livestock</i>	C-LIV					0.40	1.03	0.02	0.02		14.49		0.23
<i>poultry</i>	C-POUL					0.63	0.34	0.02	0.01		5.15		0.00
<i>extractivist forest products</i>	C-EXTR							0.00	0.00	0.00	0.07		0.03
<i>logging</i>	C-LOG							0.01	0.01	0.14	0.31		3.66
<i>deforestation</i>	C-DEF												
<i>other agricultural products</i>	C-OAG							0.06	0.11		1.79		0.14
<i>processed food</i>	C-PRFD	0.01	0.35			0.42	0.16	0.06	0.09		0.39	0.02	3.18
<i>mining and oil</i>	C-MIN	0.00	0.03					0.01	0.01		0.61	6.00	2.97
<i>industrial products</i>	C-IND	0.49	1.41	0.76	1.08	0.18	1.88	0.13	0.23	0.94	6.41	5.77	164.96
<i>construction</i>	C-CON		0.00					0.00	0.00		0.10	0.14	0.75
<i>trade and transportation</i>	C-TRAN	5.07	7.63	1.41	0.96	2.93	2.63	0.44	0.32	1.52	5.26	5.74	53.59
<i>services</i>	C-SVC	0.01	0.29					0.04	0.04		2.98	3.21	22.01

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urban skilled food processing labor	F-URBSFD											3.24		
urban unskilled food processing labor	F-URBUFD											1.96		
urban skilled heavy industry labor	F-URBSHV												2.77	
urban unskilled heavy industry labor	F-URBUHV												1.20	
urban skilled light industry labor	F-URBSLT													41.11
urban unskilled light industry labor	F-URBULT													9.08
urban skilled construction labor	F-URBSCN													
urban unskilled construction labor	F-URBUCN													
urban skilled services labor	F-URBSSV													
urban unskilled services labor	F-URBUSV													
rural skilled labor	F-AGSK	0.25	0.33	0.49	0.46	0.15	0.59	0.02	0.01	0.04				
rural unskilled labor	F-AGUNSK	2.96	1.74	2.32	1.15	4.05	2.25	0.62	0.25	0.39				
small farm agricultural capital	F-CAPAGS	2.94		1.42		4.03		0.41						
large farm agricultural capital	F-CAPAGL		4.12		1.04		2.26		0.30	0.50				
non-agricultural capital	F-CAPNAG										9.08	11.79	106.47	
arable land	F-LNDAR	2.94	1.71	0.45	0.33			0.47	0.23					
grassland	F-LNDGR					4.79	5.72							
forested land	F-LNDFR									1.68				
urban poor household	H-URBLOW													
urban middle	H-URBMED													
rural poor	H-RURLOW													
rural medium	H-RURMED													
high income household	H-HIGH													
enterprises	ENT													
direct taxes	DIRTAX													
indirect taxes	INDTX	-0.32	-1.46	-0.14	-0.12			0.07	0.04		4.65	2.80	27.06	
tariffs	TARIFFS													
government	GOV													
Rest of World	ROW													
Savings-Investment	S-I													
Stock Changes	DSTK													
	TOTAL	16.03	19.50	7.00	5.11	17.74	17.22	2.55	1.83	5.21	93.50	39.45	443.12	
	Source:													
	International Food Policy Research Institute, Washington, D.C.													

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3.49																
2.86																
	22.02	96.69														
	4.70	47.30														
26.29	14.21	104.12														
5.16	8.51	44.58														
			0.00	0.00	0.00	0.01			0.02	0.04				0.00		
			0.01	0.15	0.04	0.09			0.18	0.79			0.05	0.02		0.11
83.60	97.09	419.02	4.95	0.54	6.95	3.05	2.03	2.20	6.83	7.72	8.13	4.74	1.90	8.72	19.21	

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C-POUL	C-EXTR	C-LOG	C-DEF	C-OAG	C-PRFD	C-MIN	C-IND	C-CON	C-TRAN	C-SVC	F-URBSFD	F-URBUF	F-URBSH	F-URBUH	F-URBSLT
5.68															
1.46															
				2.55											
				1.83											
	0.42	4.19	0.60												
					93.50										
						39.45									
							443.12								
								83.60							
									97.09						
										419.02					

Brazil Social Accounting Matrix (SAM), 1996
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F-URBUL	F-URBSC	F-URBUC	F-URBSSV	F-URBUS	F-AGSK	F-AGUNS	F-CAPAGS	F-CAPAG	F-CAPNA	F-LNDAR	F-LNDGR	F-LNDFR	H-URBLO	H-URBME	H-RURLO
													0.03	0.04	0.00
													0.02	0.03	0.00
													0.15	0.17	0.02
													0.15	0.18	0.02
													0.44	0.52	0.06
													0.34	0.40	0.05
													0.00	0.00	0.00
													0.39	0.46	0.05
													0.26	0.31	0.04
													0.05	0.06	0.01
													0.83	0.98	0.11
													25.17	25.20	2.41
													0.28	0.45	
													4.91	36.79	1.28
													45.52	51.36	3.87

Brazil Social Accounting Matrix (SAM), 1996
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H-RURME	H-HIGH	ENT	DIRTAX	INDTX	TARIFFS	GOV	ROW	S-I	DSTK	TOTAL
										16.03
										19.50
										7.00
										5.11
										17.74
										17.22
										2.55
										1.83
										5.21
										93.50
										39.45
										443.12
										83.60
										97.09
										419.02
								0.00		4.95
0.01	0.04						0.33		0.00	0.54
0.01	0.03						0.00	0.00	0.06	6.95
									0.25	3.05
0.04	0.17						0.00		0.00	2.03
0.04	0.18								0.00	2.20
0.12	0.51						3.87	0.00	0.01	6.83
0.09	0.40						2.56	0.00	0.12	7.72
0.00	0.00							0.00		8.13
							0.65	0.00	-7.08	4.74
							0.00		0.00	1.90
0.11	0.45							0.00		8.72
							0.00	0.00	3.03	19.21
0.07	0.30						0.01	0.00		7.15
0.01	0.05						0.40		0.00	0.69
							0.10	0.00	0.01	4.23
								0.60		0.60
0.22	0.96						0.00		0.11	5.32
5.60	19.84						10.96		-1.17	95.36
0.10	0.71						16.93	0.01	0.28	44.06
7.86	100.43						4.56	50.22	2.03	486.66
								73.79		83.60
							5.93			99.22
11.44	76.56					110.48		2.02		424.68

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										3.24
										1.96
										2.77
										1.20
										41.11
										9.08
										3.49
										2.86
										118.71
										52.00
										2.33
										15.74
										8.79
										8.23
										271.95
										6.13
										10.52
										1.68
		12.55				15.77	0.27			80.79
		21.83				20.71	2.04			125.52
		1.88				0.80				8.15
		7.51				5.21				27.25
		103.25				53.17	1.18			277.27
							-11.05			277.92
	49.39	27.92								79.78
										90.82
										5.54
			79.78	90.82	5.54					176.14
										55.05
1.53	27.25	102.98				-30.00	16.29			126.64
										0.00
27.25	277.27	277.92	79.78	90.82	5.54	176.14	55.05	126.64	0.00	

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