

BRAZILIAN INDUSTRIALIZATION POLICY (1914-1964):  
DISCUSSION AND ANALYSIS OF CONSEQUENCES

by

BARBARA ANN KOHL

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Major Professor

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## CHAPTER ONE

### INTRODUCTION: PRELIMINARY REMARKS AND AN OVERVIEW OF THE BRAZILIAN ECONOMY

#### Purpose of Presentation

In order to discuss Brazil's progress or lack of it towards economic development, "development" must be defined along with specified indicators of the type of development considered as progress. Many policy-makers within developing nations emphasize dedication to modernization, which in the words of Helio Jaguaribe "...is not development....Modernization means improving consumption of the urban middle class--more doctors, autos, shopping centers...development requires a broader base for political participation, more money and more land in the hands of more people and less power at the disposal of a few..."<sup>1</sup>

According to Jacques Chonchol, former agricultural engineer at the University of Chile<sup>2</sup> and author of several books on agrarian reform and political problems of Latin America, industrialization or modernization in Latin America "...has actually worked to the detriment of development--housing standards for the upper class compare to the U.S... but most literally live within four boards; cities abound with cars while the bulk of the population lacks public transportation."<sup>3</sup>

Another important factor inherent to meaningful action towards development is income distribution. "Development demands [my italics] better distribution of income...which would necessitate mass education, particularly in the use of technology. In this way, the mass could have

both the incentive and means to learn...to appreciate the need for progress...to expand capacity and be more efficient."<sup>4</sup>

In light of the above, then, industrialization, modernization and rising gross domestic product (GDP) do not necessarily show that development is occurring. Brazilian political refugee Miguel Arreas offers a somewhat "radical" opinion on the really important factors involved in Brazil's economic development:

Who, for example, are those who really profit from the system, and who are those who bear its burden? These allegedly impartial analyses[of per capita income, GDP, and industrial growth rates, etc.] do not mention the growing pauperization of the masses, the complete alienation of the Brazilian economy, the transfer abroad of the country's wealth, the profits accruing to foreign and Brazilian companies at the cost of the labor of millions of Brazilians...<sup>5</sup>

The Brazilian economy slid into a "recessionary phase" beginning in the early Sixties after nearly a decade of rapid growth. Concurrent with economic decline was profound social and political upheaval, climaxing in 1964 when a military coup d'etat took place. The authoritarian military regime has remained in power since April, 1964 and thus far shows little inclination to return political power to a democratic civilian regime.<sup>6</sup>

A wealth of literature from numerous disciplines has appeared both before and after 1964 analyzing socio-political movements influencing Brazil's economic priorities, and development progress. This paper briefly describes and analyzes some effects of Brazil's industrialization policies that may have aided in precipitating an environment conducive towards political turmoil and economic "distortion."

The focus of the paper is on the industrial sector, although the political and social milieu is recognized in having important ramifications

with respect to economic goals. The remaining portion of this chapter presents certain features of the Brazilian "reality" which are deemed necessary for gaining some insight into the sheer magnitude and complexity of the country.

Highlights of Brazilian industrialization prior to 1947 are included in Chapter 2 which involves discussion of import substitution industrialization (ISI) which progressed significantly in the period 1914-1947. Economic policies to encourage ISI existed throughout this period, but are considered to have been relatively unimportant toward initiating the industrialization which did occur up to 1947.

However, in post-war years until the mid-Sixties, economic policy was purposely engineered to inspire far-reaching ISI. It was felt that overdependence on the world market--or the developed countries as sources of imports--for many products was limiting Brazil's own economic development. The same line of reasoning implied dependence on the agricultural sector's export earnings to purchase needed imports and was instrumental in keeping the country backward with respect to the rest of the world.

Export expansion was discounted as a method for economic growth and development due to the nature of world market income and price elasticities for agricultural goods in general--Brazilian exports were over 90% primary products. Brazilian policy-makers perceived manufactures export prospects to be limited by virtue of the country's underdeveloped infrastructure and inexperience in competition for manufactures on the international market. Tariff barriers and other obstacles maintained by developed and undeveloped countries also contributed to policy-makers' pessimistic orientation to

export expansion. Thus, import substitution became the preferred method towards gaining a high degree of self-sufficiency and economic development.

Policies geared to decreasing the country's imports, and therefore dependency on world market conditions for primary goods in providing foreign exchange were characteristic of the 1947-1964 period. The features of ISI policy and a discussion of the type of import substituting industrial growth of the 1947-1964 period are presented in Chapters 3 and 4. Description of certain direct effects of the period's protectionism are also included in these chapters.

While certain protectionist measures and subsidies were highly successful in promoting ISI, the measures also precipitated changes in the economy which limited further economic development, and in some cases, promoted continuing marginalization of whole regions and income groups. Chapters 5 through 9 contain analyses of particular indirect consequences of ISI policies which promoted the economic "crisis" of the early Sixties while intensifying specific social and economic disparities.

Chapter 10 contains a summary of Brazil's ISI policies. Also included in the final chapter are concluding remarks on suggested policy alternatives which might have eliminated or lessened the economic downturn of the period and on certain "constraints" which may have prevented the formulation and/or implementation of such alternative development policies.

#### Aspects of Brazil's Natural Resources--Material and Human

Brazilians often refer to their country in terms of "big," and it is big relative to other Latin American countries and, in some respects, to the world at large. Brazil's land area, resources, population, and

economic growth indicators exemplify its grand dimensions. It also has some of the continent's greatest socio-economic problems arising from tremendous disparities in income and economic activity among regions and population groups; unemployment and underemployment; inadequate public services of all kinds; and its own type of seemingly unmanageable, poverty-ridden urban sprawl.

Brazil comprises one-half the continent of South America and one-third of the region known as Latin America. The country encloses 3,268,478 square miles--only China, the Soviet Union and Canada surpass Brazilian contiguous land area.

Sharing two immense river basins, the Amazon and La Plata, Brazil has one of the world's greatest potential sources of hydroelectric power. Its subsoil deposits include nearly a quarter of the world's proven iron ore reserves and abundant quantities of most other minerals prized in an age of steel and atomic energy. The supply of essential fuels (hydrocarbons), however, is inadequate. Coal is of poor quality, while petroleum production is far below present needs.

Traditionally, Brazil's principal source of wealth has been its land. The rich clay soil of the northeast coastal strip and the red loam of the southern plateau have made Brazil a leading producer of tropical and sub-tropical plantation crops since the 16th century. Enormous stretches of arable land in the central western region are awaiting settlement; three-fourths of this land has yet to be plowed or transformed into pastureland.<sup>7</sup>

With over 100 million people, Brazil ranks eighth in population on the globe, and its three percent growth rate surpasses nearly all other

nations. While much of the country's potential wealth is interior, the bulk of the population is crowded into narrow coastal stretches. Growth rates of many Brazilian cities have exceeded six percent per annum in the 1950s and 1960s, but may have showed some inclination for slowing down in the early 1970s. Population concentration on the coast is explained in large part due to higher wages and life standards of industrial employment which is located in the mushrooming metropolitan centers and smaller cities along the Brazilian coast.<sup>9</sup>

Population growth is significant also as a factor contributing to Brazil's large number of illiterate citizens and preponderance of young people. One-half of the adult population cannot read or write, and nearly one-half of the age group 7 to 14 years of age are not in school. Most of the formally literate have received less than three years of formal elementary training. In 1970, slightly over 53% of the population were under 20 years of age.<sup>9</sup>

The country's fast-expanding population poses severe problems with respect to providing adequate public services and housing in the urban areas. In a recent United Nations study,<sup>10</sup> it was found that the annual average growth rate of Brazil's six major cities (or those with over five million population: Recife, Fortaleza, Salvador, Rio de Janeiro, São Paulo and Porto Alegre) has been declining since 1960 from 6% to 4.3% in 1970. However, those capitols with populations under 500 thousand experienced increasing growth rates in ranges of 153% to 80% during the Sixties decade. The table below illustrates the urban concentration which has progressed at rates above those of other industrializing countries.

TABLE 1.1

## Urban-Rural Population of Brazil

1940-1970

Census Year	Urban (%)	Rural (%)
1940	31	69
1950	36	64
1960	45	55
1970	53	47

Source: Salmen, "Urbanization and Development," p. 416.<sup>11</sup>

Perhaps Brazil's greatest potential resource is its labor force. Total figures are near 50 million and is the largest by far in absolute terms in South America. However, there is impressive evidence of under-utilization of the labor force. For instance, while people continue to pour into the cities, the number of workers employed in manufacturing and mineral extractive industries has failed to expand in proportion. Between 1949 and 1959 employment in these industrial classifications increased by an average of 2.5% per year--less than one-half of the corresponding increase in urban population during the same period. Between 1950 and 1965 only Brazil of the Latin American countries had a lower average yearly increase in factory-type employment than total labor force increase (2.6% and 2.9%, respectively).<sup>12</sup>

The failure of employment growth to keep pace with urban growth explains in large part, the mushrooming slum areas surrounding and within large cities. Vast numbers of people during the last three decades left Brazil's rural areas as they no longer could support subsistence life

standards in agriculture. They left in hopes of finding urban employment providing a better standard of living. However, more than half of these rural migrants remained in poverty, merely switching location. Most of the urban unemployed and underemployed dwell in sub-standard housing in a variety of "patterns."

For instance, 1970 census figures show that roughly 1.8 million persons in the greater Rio area, or about 25% of the metropolitan area's population, live in slums, i.e., favelas, casas de comodors or suburbios, all typified by sub-standard housing. In Brasilia, the model new capital, 41% of the city's residents lived in slum areas in 1962; and in Recife, the major city of the Northeast, 50% of the city's population were slum dwellers in 1961.<sup>13</sup>

#### Macro Performance of the Brazilian Economy

Transcribed in Table 1.2 are indicators of the macro performance of the Brazilian economy between 1950 and 1964. High industrial growth rates occur in the same years as relatively low growth rates in the agricultural sector. This phenomena, as well as balance of trade deficits in nine of the 15 years included in the table, are reflections of distortions arising from economic policies enforced during the 1947-1964 period.

Macro indicators such as those appearing in the table on the following page stand in marked contrast to economic performance following the 1964 coup, especially from 1967 to the present. For example, annual GDP growth rates between 1967 and 1974 averaged on the order of 10%.<sup>15</sup> In contrast to the negative growth rates of GDP per capita from 1963 to 1966, Brazilian income per capita increased 50% between 1967 and 1974.<sup>16</sup>

TABLE 1.2

Macro Performance of the Brazilian  
Economy, 1950-1964

Year	GDP (%)	(Real) Growth Rate			Exports (\$1,000)	Imports (\$1,000)	Balance of Trade (\$1,000)
		GDP per Capita (%)	Industry (%)	Agriculture (%)			
1950	6.5	4.0	11.3	1.5	1,355	1,085	270
1951	6.0	2.9	6.4	0.7	1,769	1,987	-118
1952	8.7	5.7	5.0	9.1	1,148	1,982	-734
1953	2.5	-0.4	8.7	0.2	1,539	1,319	220
1954	10.1	6.9	8.7	7.9	1,562	1,634	-72
1955	6.9	3.8	9.9	7.7	1,423	1,307	116
1956	3.2	0.2	6.9	-2.4	1,482	1,234	250
1957	8.1	5.0	5.7	9.3	1,392	1,489	-97
1958	7.7	4.6	16.2	-2.0	1,243	1,353	-110
1959	5.6	2.5	11.9	5.3	1,282	1,374	-92
1960	9.7	6.5	9.6	4.9	1,269	1,462	-193
1961	10.3	6.7	10.6	7.6	1,403	1,460	-57
1962	5.3	2.1	7.8	5.5	1,214	1,475	-261
1963	1.5	-1.5	0.2	1.0	1,406	1,486	-80
1964	2.9	-0.2	5.2	1.3	1,429	1,263	166

Source: Jon Rosenbaum "Introduction: An Overview," (Ed.) in Contemporary Brazil (New York: Praeger Publishers, Inc., 1972), p. 15.<sup>14</sup>

Brazilian export earnings have increased at unprecedented rates since 1964 as indicated in the following: total exports in 1973 came to \$5 billion, an increase of over \$3.55 billion since 1964.<sup>17</sup> Manufactured exports grew from \$50 million in 1964 to \$1 billion in 1974.<sup>18</sup>

The over-all rate of inflation declined from nearly 80% in 1964 to 15% in 1974.<sup>19</sup> Appearing in Table 1.3 are cost of living indices for the state of Guanabara during the period 1948-1950 to 1972, and are representative of other predominantly urban states in Brazil. The

table shows significant declines in inflation reflected in the costs of goods and services, especially between 1962-1966 and 1966-1970.

TABLE 1.3

Cost of Living Indices: Annual Mean

Growth Rates by Item and Period

Guanabara

1948-50/1972

Period	General	Food	Clothing	Housing	House- hold Articles	Public Health Services	Personal Services	Public Services
1948/50	6.7	6.8	4.3	10.7	0.8	11.3	9.4	10.5
1950/54	16.5	18.1	12.0	19.1	10.5	6.5	10.7	11.3
1954/58	18.3	19.4	15.4	16.8	17.3	20.5	17.8	27.7
1958/62	38.3	43.0	40.7	23.1	40.5	38.8	46.7	35.0
1962/66	67.4	61.9	65.6	69.1	70.7	66.2	74.4	89.8
1966/70	24.4	21.0	22.9	33.6	22.1	26.5	28.2	26.0
1971	20.2	22.5	16.8	16.8	15.8	21.5	20.8	24.0
1972	16.8	16.8	12.7	9.8	8.8	14.9	20.8	23.7

Source: Trench de Freitas and others, Brazil's Agricultural Sector (São Paulo: The Brazilian Organization Commission for the XI International Conference for Agricultural Economists, 1973), Table 11.8, p. 39.<sup>19</sup>

However, while industrial growth rates averaged above 20% and services sector growth rates averaged nearly 10% in the 1964-1974 period,<sup>20</sup> the agricultural sector did not fare so well. For example, between 1965 and 1969, agricultural output per capita declined 5%.<sup>21</sup>

Poor performance in the agricultural sector, as well as in certain consumer good industries reflects the economic priorities of the Brazilian government since the 1964 coup. Table 1.4 shows total output of selected goods between 1964-1970. In a country where over 90% of

the population receives under \$400 annual income (1974), the growth rates appearing in the table below are symptomatic of what some economists refer to as "misplaced priorities."<sup>22</sup>

TABLE 1.4

## Total Output of Key Selected Goods in Brazil:

Average Annual Change, 1964-70

(In percentages)

Type of Goods	Total Output	Per Capita Output	Urban per Capita Output
Foods	1.8	-0.8	-3.8
Textiles	0.1	-2.5	-5.4
Clothes	1.8	-0.6	-4.9
Automobiles	14.3	11.7	8.8

Source: Fernando Henrique Cardoso, "Associated-Dependent Development: Theoretical and Practical Implications," in *Authoritarian Brazil*, ed. by Alfred Stepan (New Haven and London: Yale University Press, 1973), Table 5.3, p. 150.<sup>23</sup>

Labor Force Composition and Productivity Differences

Brazil stands out among Latin American countries with respect to labor force composition by sector. The proportion of the labor force engaged in manufacturing decreased from 9.4% in 1950 to 8.9% in 1960, to 8.4% in 1964, and to 6.5% in 1968.<sup>24</sup> More recent figures (1971) indicate the proportion of workers in the manufacturing sector has declined to around 5.0%, or about 2.5 million workers.<sup>25</sup> Brazil has the lowest percentage of workers in manufacturing and the highest share of manufacturing in total output of all Latin American countries.<sup>26</sup>

Table 1.5 shows the changing sectoral composition of GDP in the period 1939-1970. The table shows the increasing importance of the

industrial sector and of the services sector—commerce, transportation and communications included in "Other Sectors." However, while the composition of Brazil's GDP was changing in the direction illustrated in Table 1.5, the composition of the labor force was changing in a different direction. As mentioned previously, the proportion of the labor force in manufacturing has consistently declined since 1950. Thus, in 1970 approximately 5.3% of the labor force (industrial workers) produced 28.2% of GDP, while nearly 45% of the labor force (agricultural workers) provided only 14.8% of total GDP.<sup>27</sup>

TABLE 1.5

## Sectoral Composition of Brazilian GDP

1939-1970

	1939	1947	1950	1960	1970
Agriculture	25.8	27.6	26.7	17.5	14.8
Industry	19.4	19.9	23.4	27.8	28.2
Other Sectors	54.8	52.3	49.9	52.0	57.0

Source: Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 15.

While the proportion of the labor force involved in agriculture has declined significantly in the past 30 years, alternative employment in the industrial sector has not kept pace. The result has been large increments to "Other Sectors" as defined in the table above. The rate of growth of the "other sectors" in terms of number of workers has exceeded the sector's growth in terms of GDP composition for the past two decades. For example, between 1947 and 1960, all sectors outside of agriculture and industry participating in production of GDP

declined by 0.3%, while the proportion of the labor force accounted for in those sectors increased by an estimated 15%.<sup>28</sup>

As might be expected considering the large-scale absorption into the services sectors, and the decline of the proportion of the labor force in manufacturing, productivity differences among economic sectors are marked. A high degree of mechanization in the big, modern factories made an important contribution to increase in individual productivity in the industrial sector. Between 1955 and 1965, average annual productivity increase per industrial worker was 5.2%; the average annual increase between 1950 and 1965 was nearly 6%.<sup>29</sup> In agriculture, productivity increased at an average of 2.6% annually; the crowded services sector showed an average 0.6% decline.<sup>30</sup> "As a result of the combined effect of population growth in the urban areas and the decline in an already small labor force in the industrial sector, the services sector in Brazil may well now be swollen beyond its economic utility and be hampering overall economic development..."<sup>31</sup>

Shown in Table 1.6 are 1960 estimates of labor productivity differences by sector. Differences in average productivity among sectors illustrates the results of "over-population" in certain service sectors as well as in the agricultural sector.

An implication of large differences in productivity within the Brazilian economy are big income differentials. The magnitude of income differences is especially significant with regard to the sheer numbers of workers and dependents deriving their livelihood from activity in low productivity-low-income sectors. If dependents are categorized

TABLE 1.6

## Labor Productivity Estimates by

## Sector for Brazil (1960)

(Non-agricultural average = 100)

Sector	Productivity Estimate
Agriculture	49
Total non-agriculture	100
Mining	80
Manufacturing	
Total	140
Factory	223
Artisan	22
Construction	29
Basic services*	113
Commerce	125
Other services	89

\* Public utilities, transport and communications

Source: United Nations, Income Distribution in Latin America  
 E/CN.12/863 (New York: United Nations, 1971), p. 135.<sup>32</sup>

according to labor force composition, an estimated 45 million people in 1970 depended on low incomes within one of the economy's least productive sectors--agriculture.

Regional Per Capita Income Disparity

Averages and percentages are necessarily the results of a high degree of aggregation and are therefore somewhat deceptive, especially in regard to the tremendous disparities in income among geographical regions in Brazil. Per capita income changes and levels, as well as social welfare statistics, are cases in point. While average productivity

in agriculture and some services sectors is low, productivity and therefore income levels vary widely according to region. Most of Brazil's more lucrative (capital-intensive) agricultural enterprises are located in São Paulo and extreme southern regions.<sup>33</sup> Table 1.7 illustrates the result of concentration of profitable agricultural activity. For instance, an overwhelming 63.3% of the agricultural workers in Brazil's Northeast region earn approximately less than \$17 per month, while only 15% in the extreme south earn this income level (figured on the basis of 1971 exchange values). Significant disparities are also observed in income levels even within the "wealthy" regions.<sup>34</sup>

TABLE 1.7

Distribution of Monthly Income of Male Agricultural  
Employees by Income Bracket and Region, Second Quarter 1969 (%)

Region	Less than Cr\$65,00	Cr\$65,00- 130,00	Over Cr\$130,00
Rio de Janeiro and Guanabara	34.5	49.2	16.4
São Paulo	15.9	62.9	21.3
Extreme South	15.0	58.7	26.3
Center-East	57.8	39.0	3.0
Northeast	63.3	32.8	3.8

(U.S. \$1=Cr4,050)

Source: Salmen, "Urbanization and Development," Table IV-5,  
p. 417.<sup>35</sup>

Table 1.8 shows income disparities among regions in the services sector. Higher incomes in this sector within Rio de Janeiro and São Paulo reflect the concentration of industrial activity within the

two urban areas. In 1958, 55% of Brazil's value of industrial production was produced in São Paulo alone; 28.0% of total value was accounted for in the Rio de Janeiro-Guanabara region.<sup>36</sup> Concentration of industrial activity continued up to the mid-Sixties to the extent that over 90% of value of industrial production was accounted for within the São Paulo, Rio de Janeiro-Guanabara and Rio Grande do Sul areas.<sup>37</sup>

TABLE 1.8

Distribution of Monthly Income of Employers and  
Self-Employed in Services, by Region, Second Quarter, 1969 (%)

Region	Less than Cr \$50,00	Cr\$50,00- 150,00	Over Cr\$150,00
Rio de Janeiro and Guanabara	12.6	27.7	59.7
São Paulo	12.0	18.8	69.2
Extreme South	31.6	30.5	37.9
Northeast	43.1	37.2	19.7

(U.S. \$1=Cr4,050)

Source: Salmen, "Urbanization and Development," Table IV-6,  
p. 418.<sup>38</sup>

Tables 1.9 and 1.10 further illustrate per capita income disparity among Brazil's regions and states. As shown in Table 1.9, income gaps are apparent between the "rich" South and Southeast, and the "poor" Northeast, North and West Central areas. Table 1.10 shows income differences between the richest and the poorest regions. Both tables reveal considerable disparity between urban and rural incomes within both wealthy and poor regions.

TABLE 1.9

## Per Capita Income in Rural and Urban Areas, 1960

(Current Rate in Cruzeiros)

States and Territories	Total	Urban	Rural
BRAZIL	27,005	40,178	16,194
North	16,261	30,033	7,900
Amazonas	24,898	47,968	13,417
Pará	15,704	28,582	6,878
Northeast	13,564	21,413	9,477
Maranhão	9,214	23,056	6,169
Piauí	7,710	17,903	4,566
Ceará	12,038	19,405	8,292
Rio Grande do Norte	15,177	18,457	13,206
Paraíba	14,430	15,123	14,056
Pernambuco	16,194	23,158	10,522
Alagoas	13,526	18,797	10,852
Sergipe	14,653	21,493	10,297
Bahia	14,913	24,382	9,861
West Central	15,896	17,363	15,105
Goiás	14,715	17,240	13,607
Mato Grosso	20,909	21,860	20,288
Southeast	37,631	50,405	20,467
Espírito Santo	17,285	27,784	12,345
Minas Gerais	18,991	24,801	14,095
Rio de Janeiro	25,446	29,333	19,363
Guanabara	77,963	79,014	37,908
São Paulo	47,600	58,005	30,024
South	29,771	39,288	24,026
Paraná	29,651	34,864	27,304
Santa Catarina	23,997	36,748	17,897
Rio Grande do Sul	31,137	42,412	23,766
Regions of Law No. 2,973			
Developed	35,975	48,529	22,126
Underdeveloped	14,195	22,070	10,039

Note: The figures on income refer to weighted internal income comprising rural and urban income, income from the agricultural and nonagricultural sectors respectively. Cf. Luiz Carlos de Andrade, "Desenvolvimento Regional - Problemas e Perspectivas," Revista do BNDE, 1, No. 2 (Rio de Janeiro, 1964), 89.

Source: Ianni, Crisis in Brazil, Table 7, p. 124.<sup>39</sup>

TABLE 1.10

Combined Regional and Sectoral Income  
 Structure: Brazil's South and North-East  
 (Mid-1960s)

	Sector		
	Agriculture	Non-agriculture	Total
Percentage distribution of income units:			
South	36.5	63.5	100
North-east	62.1	37.9	100
Average income (national average = 100)			
South	73	154	123
North-east	29	76	47

Source: United Nations, Income Distribution in Latin America, p. 124.<sup>40</sup>

### Personal Income Disparity

Brazil has the somewhat dubious distinction of having South America's most unequal income distribution, as shown in Table 1.11. Overall income inequality is greater in Brazil than in any other country for which estimates are available and is primarily a reflection of the extreme concentration at the very top of the scale.<sup>41,42</sup>

Moreover, recent studies of income distribution among Brazil's economically active population indicate inequality has worsened. In 1970, an estimated 50% of national income was absorbed by the top five percent, while the income share of Brazil's poorest 40% (nearly 40 million people) dropped from 10.6% to 8.1% during the ten years

TABLE 1.11

## Income Distribution in Brazil (1963-1964)

Lowest decile	2.8
2nd	3.2
3rd	4.0
4th	4.4
5th	5.4
6th	6.4
7th	7.7
8th	9.8
9th	14.8
10th	41.5
Top 5 per cent	31.0
Top 1 per cent	19.0

Source: Furtado, Economic Development of Latin America, p. 61.

between 1960 and 1970.<sup>43</sup> Between 1960 and 1970 "...every decile of the population except the first experienced a relative decline in income. Of the total gain in Brazilian income per capita over the decade the richest 10% of the population appropriated almost three-fourths, the poorest 50% less than a tenth. Urban incomes, already higher, grew more rapidly than rural earnings...Of the six regions, only the richest, the state of São Paulo, registered an above average increase in income."<sup>44,45</sup>

There are other indications, as illustrated by the decline of the real minimum wage in the table below,<sup>46</sup> that Brazil's income distribution has become progressively worse in the period since 1964. Income distribution figures for the early 1970s indicate increasing inequality.<sup>47</sup>

TABLE 1.12

Real Minimum Monthly Wage,  
 São Paulo, 1957-70  
 (\$Cr/month, 1953 prices)

Year	Wage	Year	Wage
1957	1.80	1964	1.36
1958	1.56	1965	1.27
1959	1.81	1966	1.14
1960	1.34	1967	1.10
1961	1.56	1968	1.08
1962	1.45	1969	1.04
1963	1.34	1970	1.02

Source: Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 20.

# FOOTNOTES TO CHAPTER ONE

<sup>1</sup>"The Politics of Military Domination," in One Spark From Holocaust: The Crisis in Latin America (Hereinafter referred to as The Crisis in Latin America.), ed. by Elaine H. Burnell (New York: Interbook, Inc., 1972), p. 20.

<sup>2</sup>Chonchol was forced to resign as leading agrarian reformer in Chile by Chilean President Frei, November, 1968.

<sup>3</sup>"Neo-Liberal Capitalism: Formula for Failure in Latin America," in The Crisis in Latin America, p. 34.

<sup>4</sup>Germanico Salgado, "Reforms to Fit the Objectives," in The Crisis in Latin America, p. 120.

<sup>5</sup>Brazil: The People and the Power, The Pelican Latin American Library (Baltimore, Md.; Middlesex, England; Victoria, Austria: Penguin Books, 1972), p. 187.

<sup>6</sup>Comment on the military regime's performance and apparent intentions appears in Frances M. Foland, "Wither Brazil?" in Inter-American Economic Affairs XXIV, No. 3 (Winter, 1970), 43-70; Carlos Marighela, For the Liberation of Brazil, The Pelican Latin American Library (London: Cox and Wyman, Ltd., 1971); Ruy Marini, "Brazilian Subimperialism," in Monthly Review XXIII, No. 9 (February 1972), 14-24; Eul-Soo Pang, "Brazil's Pragmatic Nationalism," in Current History (January 1974), 5-10; Rollie Poppino, "Brazil After a Decade of Revolution," in Current History (January 1974); and Israel Wonsewer, "Failures, Frustrations and Forces for Change," in One Spark From Holocaust: The Crisis in Latin America, ed. by Elaine J. Burnell (New York: Interbook, Inc., 1972).

<sup>7</sup>Rollie Poppino, Brazil: The Land and The People (New York: Oxford University Press, 1973), p. 20.

<sup>8</sup>Lawrence F. Salmen, "Urbanization and Development," in Contemporary Brazil: Issues in Economic and Political Development (Book hereinafter referred to as Contemporary Brazil.), ed. by Jon Rosenbaum and William G. Tyler (New York: Praeger Publishers, Inc., 1972), p. 416. (Salmen's article hereinafter referred to as "Urbanization and Development.")

<sup>9</sup>United Nations, Economic Survey of Latin America, 1970. E/CN.12/868/Rev. 1 (New York: United Nations, 1972), pp. 70-71. Also see Richard Weisskoff, and Francine Weisskoff, "The Political Economy of the Educational System," in Contemporary Brazil, pp. 371-398, for further discussion.

10

United Nations, General Assembly, Housing, Building and Planning: Problems and Priorities in Human Settlements; Report of the Secretary General, A/8037 (New York: United Nations, August 21, 1970), pp. 47-51, cited in Salmen, "Urbanization and Development," p. 416.

11

Refer to Footnote 10 for sources.

12

Raúl Prebisch, Change and Development, Latin America's Greatest Task, Report submitted to the Inter-American Development Bank (Washington, D.C., 1970), Table II, p. 43, cited by Salmen, "Urbanization and Development," p. 423.

13

"Erradicacao das Favelas no Rio nao Deve Se Completar em 1976," Journal do Brazil (May 10, 1971), p. 24; Lawrence F. Salmen, "The Casas de Comodos of Rio de Janeiro" (unpublished Ph.D. dissertation, Columbia University, 1971), pp. 16-17; United Nations, General Assembly, Housing, Building and Planning: Problems and Priorities in Human Settlements, Table 6, p. 56, cited in Salmen, ibid., pp. 422-423.

14

Figures cited from Centrode Contas Nacionais, Fundação Getulio Vargas, Conjuntura Econômica; IGBE, Anuário Estatístico (various years).

15

Albert Fishlow, "The Brazilian Economic Miracle: Origins, Consequences, and Prospects," paper presented at Conference on Repression and Development in Brazil and Latin America (sponsored by Community Action on Latin America, Madison, Wisconsin, 1974) mimeo, p. 1. (Hereinafter referred to as "The Brazilian Economic Miracle.")

16

Ibid.

17

Visão, Brazil Report (São Paulo, Brazil: Visão, 1973 Edition), p. 41.

18

Fishlow, "The Brazilian Economic Miracle," p. 1.

19

Figures cited from statistics published by Fundação Getulio Vargas (various years).

20

Fishlow, "The Brazilian Economic Miracle," p. 1, and de Freitas and others, Brazil's Agricultural Sector, p. 31.

21

de Freitas and others, ibid.

<sup>22</sup>See Fishlow, "The Brazilian Economic Miracle," pp. 6-7; Fishlow, "Some Reflections on Post-1964 Brazilian Economic Policy," in Authoritarian Brazil, ed. by Alfred Stepan (New Haven and London: Yale University Press, 1973); and Joel Bergsman, Brazil: Industrialization and Trade Policies (London, New York and Toronto: Oxford University Press, 1970), pp. 148-149. (Hereinafter referred to as Industrialization and Trade Policies.)

<sup>23</sup>Figures based on data developed by IPEA (Brazilian Ministry of Planning) and ANFAVEA (The Association of Brazilian Automobile Manufacturers), cited in Fernando Magalhães, "El perverso 'milagro económico-brasileño,'" Panorama Económico (Santiago de Chile), no. 265 (November-December 1971), p. 20.

<sup>24</sup>The Ministerio de Planejamento e Coordenacao Geral, A Industrializacao Brasileira: Diagnostico e Perspectivos (January, 1969), pp. 119-121, cited by João Quartim, Dictatorship and Armed Struggle in Brazil (New York and London: Monthly Review Press, 1971), p. 97. (Hereinafter referred to as Struggle in Brazil.)

<sup>25</sup>Eduardo Galeano, Open Veins of Latin America (New York and London: Monthly Review Press, 1973), p. 270.

<sup>26</sup>Ibid.

<sup>27</sup>Jon Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 15.

<sup>28</sup>See Salmen, "Urbanization and Development," for discussion of the growth of Brazil's services sector, and implications concerning planning for adequate urban social services and workers' ability to subsist at available income levels. Also, see Octavio Ianni, Crisis in Brazil (New York and London: Columbia University Press, 1970), p. 130 and p. 69.

<sup>29</sup>Economic Committee on Latin America, Report (New York: United Nations, 1967) and Banco Nacional de Economia Brasileira (Rio de Janeiro, 1967), cited by Celso Furtado, Economic Development of Latin America; A Survey from Colonial Times to the Cuban Revolution (Cambridge, Massachusetts: Harvard University Press, 1970), p. 148. (Hereinafter referred to as Economic Development of Latin America.)

<sup>30</sup>Salmen, "Urbanization and Development," p. 418.

<sup>31</sup>Ibid., p. 425.

<sup>32</sup>Figures cited in unpublished ECLA-IPEA joint project, 1966; figures derived from Brazil, Servicio Nacional de Recensamento, Recensamento Geral do Brasil, 1960, and Brazilian Institute of Geography and Statistics

(IGBE), Encuesta Economica, 1966. See de Freitas & others, pp. 81-82 in Brazil's Agricultural Sector, for additional statistics on productivity differentials among economic sectors and geographical regions.

<sup>33</sup>Ian Little; Tibor Scitovsky; and Maurice Scott, Industrialization and Trade in Some Developing Countries, a Comparative Study (London, New York, and Toronto; Oxford University Press, 1971), Chapter 3, "How Industrialization has Affected the Domestic Economy," pp. 80-113, for discussion of Brazil's ISI policies which intensified regionalization. (Hereinafter referred to as A Comparative Study.)

<sup>34</sup>Salmen, "Urbanization and Development," pp. 417-418. See also Raouf Kahil, Inflation and Economic Development in Brazil, 1946-1963 (London: Clarendon Press, 1973), Table 11.17 titled, "Relative Wages by Industry in Guanabara and Brazil, April 1955-April 1963," for wage differentials among industries. (Hereinafter referred to as Inflation in Brazil.)

<sup>35</sup>Figures cited from Pesquisa Nacional por Amostra de Domicilios (PNAD), Anuario Estatistico, taken from Timothy King, "Economic Aspects of Population and Labor Force in Brazil," IBRD, Economics Department Working Paper, No. 88 (October 13, 1970).

<sup>36</sup>Ianni, Crisis in Brazil, pp. 70-75.

<sup>37</sup>Ibid. See also United Nations, Income Distribution in Latin America, Chapter 3, "The Regional Distribution of Income," pp. 120-133, for further discussion.

<sup>38</sup>Figures cited from same sources as stated in Footnote 35.

<sup>39</sup>Figures derived from Department of Economics, Brazilian National Development Bank. Raw data from Getulio Vargas Foundation, Brazilian Institute of Reinsurance.

<sup>40</sup>Figures cited in Encuesta Economica, IGBE, 1966.

<sup>41</sup>United Nations, Income Distribution in Latin America, pp. 70-75.

<sup>42</sup>The 45% below the top five percent have benefited less than their counterparts in other industrializing Latin American economies such as Mexico or Argentina. For example, in Argentina the 45% below the top five percent receive a similar percentage of total income and the differentiation within the group is similar; but the absolute level is about 3 1/2 times that in Brazil. In Mexico the absolute level is about double, and the group receives 55.5% of the total. (Figures cited in United Nations, Income Distribution in Latin America, p. 76.)

<sup>43</sup>Ibid., p. 69. See also Fishlow, "Brazilian Size Distribution of Income," The American Economic Review, LXII, No. 2 (May 1972), pp. 392 and 399 for 1960 and 1970 income distributions.

<sup>44</sup>Albert Fishlow, "The Brazilian Economic Miracle," p. 5.

<sup>45</sup>"About a third of the Brazilian population is to found in families unable to attain the equivalent of the minimum wage in the Northeast--less than \$475 a year for a family of five." Ibid., p. 7.

<sup>46</sup>It has been noted that often minimum wage rates do not reflect the income level of workers. If the market clearing wage rate, or that "going wage rate" necessary to fill available jobs is higher than the minimum wage, one would presume workers are "better off" than low minimum wages would reflect. However, the real market equilibrium wage rate would expectedly have been decreased in this period due to inflation, also. In addition, unemployment in Brazil's urban areas had not decreased significantly prior to 1971.

<sup>47</sup>Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 14.

## CHAPTER TWO

### PRELUDE TO PROTECTIONIST ERA (1914-1947)

Industrialization in Brazil has been characterized by experts as "layered development," the result of shifting emphasis over time within a goal framework of import substitution. Rather than a comprehensive simultaneous build-up and restructuring of economic infrastructure, modernization has taken place first in one sector and then in another sector.

Brazil's first "layer" developed for the domestic market was the consumer goods industry. Stimulus for industrial activity within this sector was largely due to difficulty in obtaining needed imports during World War I. Contributing to the import substitution process was the decline of Brazilian international trade during the War years. Previous to 1914, coffee export earnings supported amortization and interest payments accumulating from foreign investment which reached \$1.4 billion in that year.<sup>1</sup> With the advent of the War, export earnings could no longer support import expenditures and foreign financial payments.

Thus, import substitution of consumer goods was initiated between 1914 and 1919. Industrial production increased 112% between 1914 and 1919; 5,936 industrial establishments were founded during the War years.<sup>2</sup> By 1919, Brazil had virtually completed the import substitution process in the "soft" consumer goods sector. São Paulo, the present dominant manufacturing center had shown already in 1919 an industrial profile oriented to newer, more technologically advanced production.<sup>3</sup>

At the War's end, Brazilian exports picked up, and industrial growth continued at a crescendo until 1923. The period 1923-1930 was a "...difficult phase for Brazilian industry, as international commerce dislocated by war, was re-establishing itself, and thus struggling for the reconquest of markets. Many foreign industrial products were cheaper than domestic goods, and imports of soft consumer goods and durables increased significantly."<sup>4</sup> Meanwhile, Brazilian export earnings lagged far behind import payments. After the collapse of 1924-1925 (when Brazil declared a moratorium on its huge international debts), industrial production rose only 6.7% between 1925 and 1930.<sup>5</sup>

Native Brazilian industrialists' inefficiency during the later 1920s is reflected by inability to compete with lower-priced imports.<sup>6</sup> In order to compete with imports for the domestic market, low cost, efficient production techniques were needed. Technology was imported on a large scale in the 1924-1929 period, and a large portion was financed by foreigners. The massive influx of foreign capital between 1924 and 1929 reflects both the need for modern technology and the Brazilian economy's lack of adequate investment resources. For example, total U.S. direct investment jumped from \$4.5 million in 1924 to \$108.4 million in 1929.<sup>7</sup>

In the period following World War I until the late Thirties the structure of value added changed from an emphasis on consumer goods to an emphasis on intermediate and lower level capital goods. The substitution of domestic goods for imports in these sectors was relatively gradual until the years of the Great Depression during which time metallurgy, non-metal minerals, and paper products all grew considerably

more rapidly than industry as a whole. Appearing in Table 2.1 are figures illustrating the change in Brazil's industrial profile in the two decades between 1919 and 1939.

TABLE 2.1

Distribution of Valued Added by Use and  
Imports as a Percentage of Total Supply,

	1919 and 1939		Imports as a	
	Percentage Distribution (1919) <sup>a</sup>	(1939) <sup>b</sup>	Percentage of Supply (1919) <sup>c</sup>	(1939) <sup>d</sup>
Consumer Goods	80.2	69.7		
Textiles	24.4	22.0	13.7	5.7
Clothing	7.3	4.8	6.2	3.5
Food	32.9	23.6	11.5	2.8
Beverages	5.4	4.3	23.8	8.5
Tobacco	3.4	2.3	0.3	0.0
Rubber	0.1	0.2	70.7	40.7
Printing and publishing	na	3.6	na	4.2
Chemicals	4.2	6.5	57.0	37.5
Leather	0.2	0.2	32.0	7.7
Nonmetallic minerals	1.2	1.0	40.5	13.6
Miscellaneous	1.2	1.2	53.4	40.5
Consumer Durables	1.8	2.5		
Electrical	—	0.4	100.0	65.8
Transport	—	—	53.5	56.2
Furniture	1.8	2.1	2.2	0.8
Intermediate Goods	16.5	22.9		
Metallurgy	3.8	7.6	64.2	41.4
Nonmetallic minerals	2.8	4.3	40.5	13.6
Leather	2.0	1.5	32.0	7.7
Chemical	0.8	4.2	57.0	38.7
Wood	5.7	3.2	6.1	4.3
Paper	1.4	1.5	58.3	37.5
Rubber	—	0.4	70.7	40.7
Electrical	—	0.1	100.0	65.8
Capital	1.5	4.9		
Mechanical	0.1	1.3	96.7	79.5
Electrical	—	0.3	100.0	65.8
Transport	1.4	3.3	53.5	56.2
Total	100.0	100.0	24.71 <sup>e</sup>	20.4

<sup>a</sup>Classification and subdivision of industries by use was based on content of subgroups reported in the industrial census; all transport was treated as investment. Federal excise tax has been subtracted, and foodstuffs adjusted for inclusion of sugar refining and bakery production for comparability with later censuses.

<sup>b</sup>Percentages in total supply refer to entire sector rather than particular use; for that reason, where industries appear under multiple uses, the percentage is repeated.

<sup>c</sup>No finer breakdown of imports than by sectoral level was available, hence the percentages refer to the entire sector, and not specific use. For that reason, where industries appear under multiple uses, their percentage is repeated.

<sup>d</sup>Division by use of certain industries followed titles of subgroups. For 1939, division of the electrical industry was based on the 1949 ratio between intermediate and capital goods for those groups; all of transport before 1959 was treated as investment.<sup>7</sup>

<sup>e</sup>Total excludes printing and publishing.

Source: Fishlow, "Origins and Consequences of Import Substitution," p. 334.<sup>8</sup>

Generally, the 1930 crisis affected Brazilian industry only slightly and assisted rather than restricted it. Foreign sources of capital dried up, and export earnings were insufficient to pay for essential imports and rigid debt service requirements.<sup>9</sup> As shown in Table 2.2 below, Brazilian international trade significantly declined. New York prices for Brazilian coffee fell from 22.5 cents in September, 1929 to eight cents in September, 1931, and reflected the general collapse of world markets for primary commodities.<sup>10</sup> Thus, the environment for import substitution industry was exceptionally favorable. Between 1933 and 1938 the value of industrial production (in 1933 prices) increased by 44.3%.<sup>11</sup>

TABLE 2.2

Brazilian Balance of Payments  
on Current Account 1929, 1932  
(in Millions of U.S. Dollars)

	1929	1932
Exports	446	181
Imports	417	108

Source: Baklanoff, "Brazilian Development and the International Economy," p. 193.

By 1940, consumer goods, with the exception of durables, had virtually completed the substitution process. Accompanying this process were significant declines in the over-all import coefficient and especially with respect to certain sectors. The simple ratio of imports of individual products to total supply declined from 24.7 to 20.4% excluding tariffs — inclusive of tariffs, from 28 to 25%. But the current-price ratios distort the change over time because they fail to take into account the very substantial price increases of imports relative to domestic manufactures between 1920 and 1939; this change is estimated to have been more than 60%. While the 1939 value ratio is as large as it is, real imports actually were smaller in 1939 than in 1920.

"To make an accurate comparison, therefore, relative prices of imports must be held constant...In 1920 relative prices, the decline in the import component of total supply is from 34 to 15%; in 1939 prices from 50 to 25%...Indeed, in no period subsequent to 1940 did the reduction in the import coefficient play so large a role as between 1920 and 1939."<sup>12</sup>

As shown in Table 2.1, the structure of value added by use in 1939 altered in favor of intermediate and capital goods relative to the 1919

structure. Consumer goods declined from 80% of value added in 1919 to 70% in 1939. Intermediate sectors such as metallurgy and chemicals produced domestically more than one-half of supply in 1939, compared with 35.8% and 43.0% in 1919, respectively. Capital goods increased participation in total value added from 1.5% to 4.9% between 1919 and 1939.

Use of intermediate goods and producers goods increased in the 1930s, as would be expected, because of industrial expansion and diversification within all major industrial breakdowns--consumer goods, consumer durables, intermediate goods and capital goods. Expansion of key intermediate product sectors such as pig iron and steel ingots, lowered sectoral import coefficients, and more than kept pace with the economy's increasing needs for these products. Table 2.3 shows absolute quantities and growth of production and consumption of four selected intermediate goods between 1925-1929 and 1935-1939. In all sectors average production growth rates exceeded consumption growth rates.

TABLE 2.3

Brazilian Pig Iron, Steel, Rolled Steel, and  
Cement Production and Consumption\*

	Pig Iron		Steel Ingots		Rolled Steel		Cement	
Annual Average	Pro- duction	Con- sumption	Pro- duction	Con- sumption	Pro- duction	Con- sumption	Pro- duction	Con- sumption
1925-1929	25.2	32.7	14.8	21.8	16.7	441.2	50.4	483.6
1935-1939	104.6	105.4	84.2	91.6	74.7	404.6	547.6	612.0
Annual rate of growth	15.3	12.4	19.0	15.4	16.2	-0.9	27.0	2.4

\* Thousands of tons.

Source: Fishlow, "Origins and Consequences of Import Substitution," p. 331.<sup>13</sup>

Alongside the shift in production structure there was a shift in distribution of imports in favor of more specialized imports incapable of ready substitution. Partly guided by policy, but also the price mechanism itself, essential and complementary imports could be obtained to reinforce the growth process.<sup>14</sup>

During the 1930s devaluation of the cruzeiro reinforced the import substitution goal. "Between 1929 and 1939 internal prices rose by less than one-third, while the exchange rate declined by 132%, representing a substantial real devaluation...the real devaluation, as had happened so frequently in the past, was indeed more decisive than tariffs in altering the relative prices in favor of import substitution."<sup>15</sup>

Throughout the period 1920 to 1940, the Brazilian government utilized a variety of policies to encourage import substitution activities--such as import quotas, tariffs, and import licenses. Yet, it is generally held<sup>16</sup> that these instruments had limited effectiveness in encouraging import substitution production, and may have discouraged export production. There seems to be a general consensus of opinion that world market conditions deriving mainly from the crises of depression and war-time production re-orientation in Brazil's import source countries contributed most heavily to high import substitution industrial growth rates.

Transformation of the composition of Brazil's industrial output from 1920 to 1940 created the basis for the country's role during the years of World War II. When World War II began, the country's large industrial establishment was increasingly favorable to heavy industry and could thus supply the needs previously met by imports.<sup>17</sup>

In contrast to a more capital-intensive mode of production of subsequent decades, the Great Depression era was markedly labor-intensive. Rapidity of industrialization led to capital scarcities, attributable in large part to the decline of foreign investment in Brazil. "There is no doubt that the industrial sector was labor-intensive. The São Paulo industrial census reports employment growth of production workers between 1929 and 1937 at a rate of 10.4% per annum, leaving a margin for productivity gain of less than two percent annum."<sup>18</sup>

Growth of domestic industry not only provided Brazil with a large quantity of former traditional imports, but also her sister nations. "As other Latin American countries were cut off from traditional supplies, Brazil stepped in and supplied manufactured exports (particularly textiles) ..."<sup>9</sup> In addition, Brazil became an exporter of strategic materials for the United States war effort.<sup>20</sup>

## FOOTNOTES TO CHAPTER TWO

<sup>1</sup>Eric N. Baklanoff, "Brazilian Development and the International Economy," in Modern Brazil, ed. by John Saunders (Gainesville, Florida: University of Florida Press, 1971), p. 193.

<sup>2</sup>Ibid., p. 162.

<sup>3</sup>See p. 28 of this presentation for a breakdown of Brazil's industrial profile in 1919.

<sup>4</sup>Dorival Vieira, "Industrial Development in Brazil," in Modern Brazil, p. 163.

<sup>5</sup>United Nations, El Financiamiento Externo de America Latina (New York: United Nations, 1964), pp. 13 and 34, cited by Ianni, Crisis in Brazil, p. 152.

<sup>6</sup>It is to be noted that exchange rates between 1925 and 1930 approximated free exchange rates on the world market. Overvalued exchange rates manifested primarily in the years following 1939. Therefore, imports were not "cheaper" than domestic products due to overvaluation of the cruzeiro in the 1920s.

<sup>7</sup>Methodology of industrial division was done according to Candal, A., A Industrializacao Brasileira, IPEA, (Rio de Janeiro, 1968), cited by Fishlow, "Origins and Consequences of Import Substitution in Brazil," in International Economics and Development, ed. by Luis Eugenio Di Marco (New York and London: Academic Press, 1972), p. 320. (Hereinafter referred to as "Origins and Consequences of Import Substitution.")

<sup>8</sup>Figures cited in Fundação Getulio Vargas, Estrutura do Comercio Exterior do Brasil, 1920-1964, Vol. 2 (Rio de Janeiro, 1969), "Industrial Census, 1940."

<sup>9</sup>Baklanoff, "Brazilian Development and the International Economy," p. 193. See also Arreas, Brazil: the People and the Power, pp. 47-48 for discussion of Brazil's declining import capacity during years of the Depression.

<sup>10</sup>Baklanoff, ibid., p. 195.

<sup>11</sup>Ibid., p. 193. Similar figures appear in Arreas, Brazil: The People and the Power, p. 48.

<sup>12</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 320.

<sup>13</sup>Figures cited in Werner Baer, The Development of the Brazilian Steel Industry (Nashville, Tennessee: Vanderbilt University Press, 1969), p. 61 and Palaez, L., "A Balanca Commercial, A Grande Depressaoe A Industrializacao Brasileira," Rev. Brasileira Economia, (January/March, 1968), 22, 40.

<sup>14</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 332.

<sup>15</sup>Ibid., p. 334.

<sup>16</sup>This view of the relative inefficiency of direct government action to encourage industrialization prior to the 1940s is presented in Fishlow, "Origins and Consequences of Import Substitution," p. 334, and Furtado, Economic Development of Latin America, pp. 90-92, 143, 145-149.

<sup>17</sup>Vieira, "Industrial Development in Brazil," p. 167.

<sup>18</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 340.

<sup>19</sup>Baklanoff, "Brazilian Development and the International Economy," p. 202.

<sup>20</sup>Ibid.

DIRECT AND INDIRECT RESULTS OF  
POST-WAR IMPORT SUBSTITUTION  
INDUSTRIALIZATION POLICY

### CHAPTER THREE

#### BIAS AGAINST EXPORTS

During Brazil's "era of protectionism" (1945-1967), a variety of instruments were used, leading to a plethora of mutually reinforcing effects within and among economic sectors. One of the most frequently-mentioned consequences of the protectionist policy was the inherent bias against exports which emerged via exchange rate overvaluation.

Leff attributes Brazil's declining export performance between 1947 and 1962 to an ideology promoting industrialization and independence which manifested itself in an "export surplus" theory.<sup>1</sup> This theory is described as belief that domestic demand must be served first, even if internal prices are lower than world market prices.

The stipulation that domestic demand had to be served, even though world prices were higher, led to lower domestic prices than would have otherwise prevailed. Hence, if domestic demand was at all price-elastic, domestic 'needs' became so much greater and the 'exportable surplus' so much smaller. Second, the impact of international demand on the domestic market and price formation, and thus on investment and production plans, was restricted. As a result, unless supply of these products was completely price elastic...production was also lower than it would otherwise have been.<sup>2</sup>

Hence, it was thought that exchange rate devaluation was unnecessary and even disadvantageous to the domestic economy. Fishlow notes that already in 1946, on a parity basis with 1939, the exchange rate was overvalued by 75%.<sup>3</sup> Combined with the exchange rate "disincentive," native exporters faced an obstacle course of export licenses, taxes and quotas.

Overvaluation had a definite negative effect on non-coffee exports and fostered pessimism and disbelief in the external market that characterized subsequent policy during the Fifties decade. As a by-product, a continuing belief in the virtues of capital-intensive industrialization and neglect of agriculture was reinforced.

In 1953, a multiple exchange rate system was instituted (Instruction 70) by the Brazilian Monetary Authority.<sup>4</sup> This was done to correct, in some measure, distortions occurring with respect to the export market.<sup>5</sup> It was hoped that variation over time to accompany domestic rates of inflation and reliance on rationing of exchange through an auction system would be easier to administer and more adequate than the already-functioning bureaucratic allocation of licenses and long-time fixed exchange rate structure.

The exchange rate system operated through a complex mechanism of weekly auctions of foreign currency. This provided a de facto devaluation of the cruzeiro for imports and established a market mechanism for equating foreign exchange supply and demand. As shown in Table 3.1, the price paid for exchange certificates (the agio) varied considerably among the five established categories. Also included in Table 3.1 are calculations of the free exchange rate, preferential rates and the cost-of-exchange rate. As indicated, preferential and cost-of-exchange rates, and items under Category 1 were subject to an overvaluated rate of exchange. The overvaluated rates reflected for the most part the degree of necessity associated with certain imports.

TABLE 3.1

## Exchange Rates for Imports in Various Categories,

September 1956

		Cruzeiros per U.S. Dollar
Category I	Agricultural supplies	51
Category II	Ores, raw materials	71
Category III	Industrial machinery, vehicles	142
Category IV	Office machinery, fresh fruits, some consumer goods	187
Category V	Other items, including all those of which local supply is satisfactory	302
Free Rate	Invisibles, and most capital transactions	68.50
Preferential Rates	Petroleum, wheat, fertilizers, newsprint, and other special items	19 to 54
Cost-of-Exchange Rate	Interest and amortization on registered capital imports	43.82

Source: Lincoln Gordon and Englebert Grommers, United States Manufacturing Investment in Brazil, 1946-1960 (Boston, Massachusetts: Harvard University Press, 1962), Table 3, p. 18.<sup>6</sup> (Hereinafter referred to as Investment in Brazil.)

However, the system, for all its real allocative internal effect, did not adequately deal with one of the major problems for which it had been designed--equilibrium in the balance of payments. Private capital inflow and export production were discouraged by continuing overvaluation of the export exchange rate. In addition, the system did nothing to offset the continuing pressure of demand for foreign exchange. In fact, one-half of total imports between 1954 and 1957 were brought in under preferential rates or other special arrangements outside the auction system.<sup>7</sup> Artificially low prices of exchange made effective via the "special exchange rates," were applied to imports needed for import-substituting industry.

In order to somewhat alleviate the disincentive towards private capital inflow, Instruction 113 was instituted by the Brazilian Superintendency of Money and Credit (SUMOC) in 1953,<sup>8,9</sup> which enabled foreign investors to import equipment outside the official exchange rate system. The measure of advantage through use of Instruction 113 over purchase of equipment in the auction market was the difference between the cost of foreign exchange in the relevant auction category and the free market rate. For dollar imports this differential was at most times quite substantial.<sup>10</sup> Throughout the Fifties, the government also accorded preferential exchange rate treatment and tariff suspension on equipment imports financed by overseas suppliers credits or by foreign private investors.<sup>11</sup>

The multiple exchange rate system was the major instrument of protection until 1957 when tariff legislation was passed, and with it the introduction of the National Tariff Council. In Article 48 of the new Tariff Law of 1957 the number of foreign exchange auction categories was reduced to two, known as "General" and "Special." The categories were described as follows:

The general category shall include raw materials, equipment, and other production goods, as well as current consumer goods of which the supply in the internal market is not satisfactory. The special category shall include goods of restricted consumption and other items of any nature, of which the supply in the internal market is considered satisfactory.<sup>12</sup>

Table 3.2 illustrates the differential exchange rates applied to the categories, and compared with the free exchange rate prevailing on the world market.<sup>13</sup>

The magnitude of change put into effect with the multiple exchange rate system enacted in 1953, as mentioned previously, was not sufficient to close the overvaluation gap in regard to exports. While the multiple exchange rate system was a "step in the right direction," subsequent

TABLE 3.2

Exchange Rates, 1957-1960  
(cruzeiros per U.S. dollar)

General Category at middle of month	Sept. 1957 92.8	Sept. 1958 218.3	Sept. 1959 182.43	Aug. 1960 228.92
Special Category at middle of month	177.7	468.8	380.92	495.89
Free Rate monthly average	82.20	156.25	166.00	187.23

Source: Gordon and Grommers, Investment in Brazil, p. 21.<sup>14</sup>

changes in exchange rates (including those made under the Tariff Law of 1957) were not frequent enough nor did they fully compensate for domestic inflation between rate changes.

The divergence between import and export exchange rates throughout the 1950s and early 1960s did not decrease. In fact, the gap between export and import exchange rates was allowed to increase in some years — 1956, 1957, 1961 and 1963. Instead of a large real devaluation to equilibrate the export market,<sup>15</sup> higher protective barriers were used. Figure 1 illustrates the divergence between export and import exchange rates in the decade 1954-1964.

The bias against agricultural exports during the 1954-1964 decade is clear (coffee excluded). "The implicit tax on exports (relative to free trade situation) averaged 31% in the period. In addition to this price bias, quantitative restrictions were placed on exports of food products from time to time."<sup>17</sup>

The overvalued exchange rate policy via an exportable surplus kind of logic, and preference for industrial growth provided for increasing

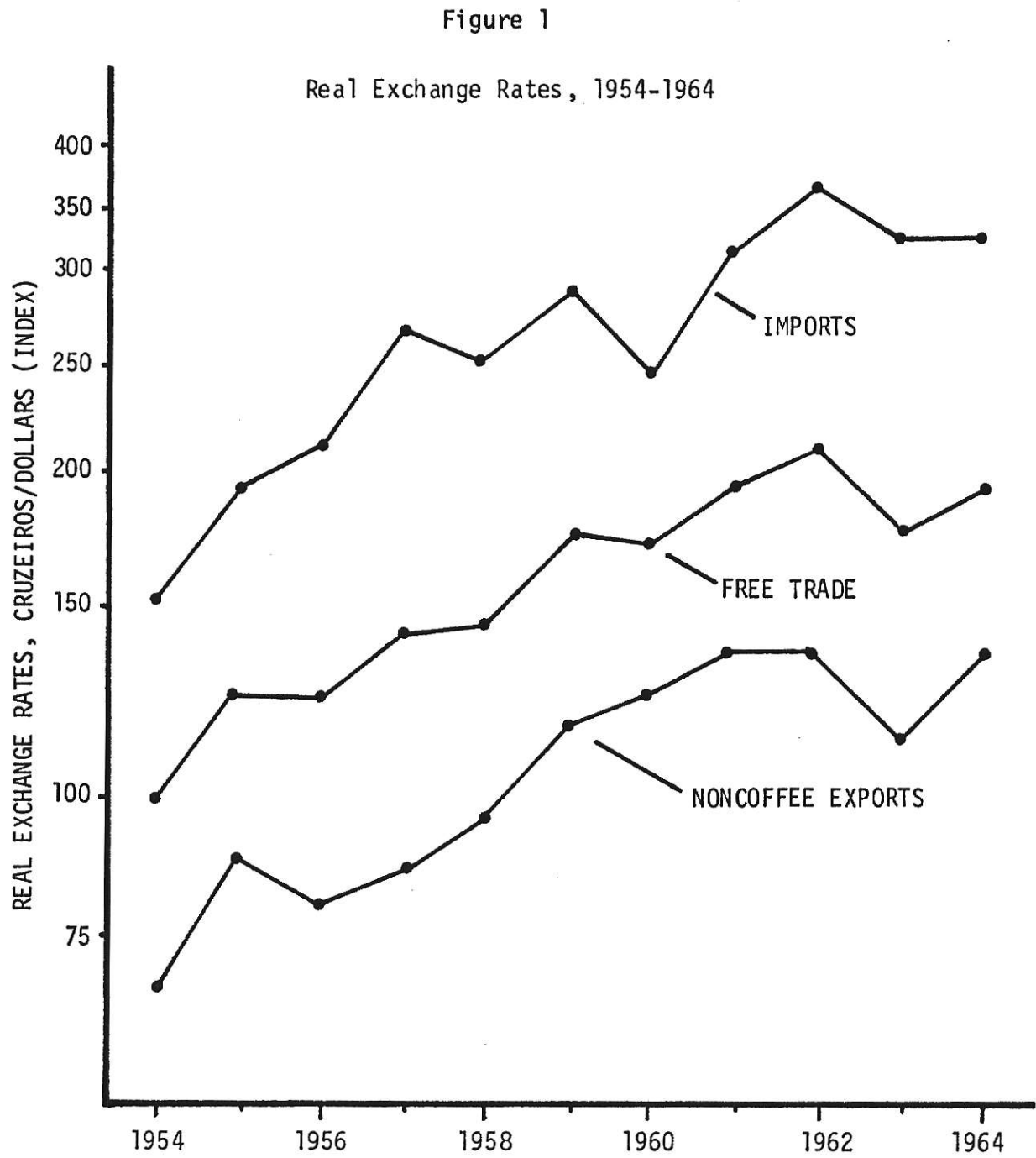


Figure 1

Real Exchange Rates, 1954-1964

Source: Bergsman, Industrialization and Trade Policies, Figure 4.1, p. 79.<sup>16</sup>

dependence of Brazilian exports on one product, coffee.<sup>18</sup> This aspect made Brazil especially vulnerable to balance of payments problems since the bulk of export earnings derived from coffee sales, while coffee prices on the world market were subject to great fluctuation. For example, "...by 1963, New York prices for a 100 lb. bag of coffee had fallen to \$28.98, whereas in 1958, the price was \$40.35."<sup>19</sup> Other major primary export product prices--cotton and cocoa--also declined during the 1958-1963 period. For example, by 1963 cocoa prices had declined to 50% of 1958 levels.<sup>20</sup>

Brazil's tenuous position in the export sector is further revealed by sectoral composition. Between 1950-1953 and 1960-1963, 90% of total exports were composed of crude agricultural and mineral products.<sup>21</sup> The top three primary exports--coffee, cotton and cocoa--accounted for 78% of total primary exports during this period.<sup>22</sup>

The bias against exports is also observable with respect to manufactures. Manufactures exports (1949-1962) rose as a percentage of output in only five of the 21 sectors shown in Table 3.3. In all sectors but wood products, exports failed to increase by more than one percent of total output. (Exports of wood products were virtually all pine lumber.)

Apart from the general obstacles posed by a persistent overvaluation of the cruzeiro to export manufacturers, the differential between import and export exchange rates posed almost insurmountable barriers to exporting by those manufacturers whose products contained a substantial imported component. Imported inputs had to be purchased at exchange rates considerably higher than the exchange rate to which export proceeds could be converted.

TABLE 3.3

Ratio of Manufactured Exports to Gross Value of  
Production, 1949 and 1962

Sector	1949	1962
Non-metallic mineral products	0.002	0.002
Metallurgy	0.017	0.001
Machinery	0.016	0.009
Electrical equipment	0.002	0.001
Transport equipment	0.000	0.008
Wood products	0.021	0.193
Furniture	0.000	0.000
Paper and products	0.000	0.004
Rubber products	0.001	0.002
Leather products	0.396	0.069
Chemicals	0.268	0.076
Pharmaceuticals	0.022	0.004
Perfumes, soaps, etc.	0.000	0.000
Plastics	0.000	0.000
Textiles	0.136	0.097
Clothing	0.001	0.001
Food products	0.389	0.185
Beverages	0.000	0.000
Tobacco	0.000	0.001
Miscellaneous	0.019	0.003

Note: Printing and publishing is omitted.

Source: Bergsman, Industrialization and Trade Policies, Table 5.4, p. 97.

For example, assume a Brazilian firm exported a product valued at \$400, of which \$100 of total product value was an imported component. In 1956, the \$100 component cost the Brazilian firm 178 cruzeiros. The firm would have received only 67 cruzeiros in the export market for the imported input. The "exchange loss" would have amounted to 111 cruzeiros, or \$62.36.<sup>23</sup> The differential exchange rates then, created a situation wherein the production costs of Brazilian export manufacturers using imported inputs were often higher than potential export sales revenue.

It is to be noted that Brazil's export performance during the post-war years was the worst of all developing countries.<sup>24</sup> Export earnings increased only 4% between 1946-1948 and 1960-1962.<sup>25</sup> In 1964, the dollar value of Brazilian exports amounted to the same as in 1946.<sup>26</sup> Brazil's "sickly performance" in the export sector throughout the period, however, is largely attributable to price declines in the primary goods sector as can be seen in the following statistics: between 1947-1949 and 1960-1962, real aggregate output of the export sector increased by 140%. While the value of coffee exports increased only 23%, other primary products exports (cocoa, cotton, tobacco, sugar, hides, rubber, timber, beef, etc.) had actually declined slightly.<sup>27</sup>

Perhaps one of the most significant indicators of the protectionist era's bias against exports is import capacity--relative to what it could have been if there had been no overvaluation of the export exchange rate. Whereas import capacity--total export earnings--increased by 4% between 1946-1948 and 1960-1962, it is estimated that import capacity could have increased 26% in this period of time with an export cruzeiro, applicable to all exports, devalued all the way to the free trade exchange rate.<sup>28</sup>

Although Brazil's export "stagnation" is generally attributed to coffee, coffee export earnings increased by 23% in the 1946-1948 to 1960-1962 period. Rise in coffee earnings is attributable to both world market price changes and quantum increase. Coffee export receipts were subject to free market exchange rates, while non-coffee export receipts were not.

As mentioned above, total export quantum grew 140% in the 1947-1949 to 1960-1962 period. Most of the quantum increase derived from coffee, although total non-coffee export quantum also increased by an estimated

7 to 10%.<sup>29</sup> However, non-coffee export earnings fell by nearly 19%, resulting from drastic world market price declines, especially for cocoa and cotton which comprised the bulk of non-coffee exports.

To summarize, then, despite lower world market prices, the expansion in non-coffee export output, nonetheless could have facilitated a 3% increase in export proceeds (rather than the 19% decrease), in a free exchange rate situation between 1946-1948 and 1960-1962.<sup>30</sup>

However, Brazil's total import capacity did not actually change from 1949 until 1961, which is attributed to declining import prices and Brazil's ability to secure compensatory finance.<sup>31</sup> However, the bias against exports and marked declines in primary product prices on the world market eventually aided in precipitating Brazil's balance of payments difficulties in the early Sixties, at a time when import prices were rising along with import quantum.<sup>32</sup>

World market price declines for coffee, cocoa and cotton provided significant disincentive towards export production of these products. The bias against exports--via exchange rate overvaluation and export quotas and licenses--merely added to export producers' expectations of low returns. Diversification of export products might have partially compensated for price declines of Brazil's three major exports. However, exchange rate overvaluation discouraged diversification, as well as expansion of current exports.

By perpetuating and increasing the gap between import and export exchange rates, protectionist policy discouraged greater export earnings to offset growing import needs for industry. While manufactured exports might have "filled in" to a much greater magnitude at a time when world prices for primary products were declining, exchange rate policy prevented

growth of manufactured exports from occurring. Thus, virtual export stagnation both in respect to earnings and absolute quantum (compared to what export output might have been without export exchange rate overvaluation) was brought to bear in the 1947-1964 period.

FOOTNOTES TO CHAPTER THREE

<sup>1</sup>"In fact, this attitude was sometimes made completely explicit, as in published work by the chief administrator of CACEX (Cartiera do Comercio Exterior), the authority in charge of export licensing between 1954 and 1961." (Cited in Nathaniel H. Leff, "Export Stagnation and Autarkic Development in Brazil, 1947-1962," Quarterly Journal of Economics, Vol. 81 (May, 1967), p. 290.)

<sup>2</sup>Ibid., pp. 290-291.

<sup>3</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 340.

<sup>4</sup>See Fishlow, "Origins and Consequences of Import Substitution," pp. 343-344 for discussion of Instruction 70's inadequacy towards narrowing overvaluation gap.

<sup>5</sup>"Short-term compensatory credits and debt accumulated on such a scale in 1951 and 1952 that the system was no longer viable. In the latter years, official compensatory finance alone was \$615 million, more than one-third the value of imports (FOB)." (Cited in Fishlow, ibid., pp. 344-345.)

<sup>6</sup>Figures cited from International Monetary Fund (IMF), International Financial Statistics, December 1956.

<sup>7</sup>Gordon and Grommers, Investment in Brazil, p. 19.

<sup>8</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 343.

<sup>9</sup>For discussion of priorities leading to establishment of Instruction 70, and of detailed workings of the foreign exchange auction system, see Leff, Economic Policy-Making and Development in Brazil 1947-1964 (New York, London, Sydney, Toronto: John Wiley and Son, Inc., 1968), pp. 14-19; and A. Kafka, "The Brazilian Exchange Auction," Review of Economics and Statistics (October, 1966), cited in Leff, ibid. (Hereinafter Leff's book referred to as Development in Brazil.)

<sup>10</sup>Gordon and Grommers, Investment in Brazil, pp. 19-20.

<sup>11</sup>See Leff, Development in Brazil, Chapter 4, "Direct Foreign Investment" for detailed discussion on effects and methods of Instruction 113.

<sup>12</sup>Gordon and Grommers, Investment in Brazil, p. 21.

<sup>13</sup>The free market rate statistics were derived from IMF International Financial Statistics for respective years. The free market rates were tabulated on a comparison basis between Brazilian domestic inflation with U.S. domestic rates of inflation.

<sup>14</sup>Figures appearing in Table 3.3 cited from IMF, International Financial Statistics (for various years).

<sup>15</sup>Joel Bergsman, Industrialization and Trade Policies, p. 77; Fishlow, "Origins and Consequences Import Substitution," pp. 341-347; and Leff, Development in Brazil, pp. 77-78.

<sup>16</sup>Figure 1 is derived from author's own calculations appearing in Tables 4.4 and 4.5, pp. 77-78.

<sup>17</sup>Bergsman, Industrialization and Trade Policies, p. 98.

<sup>18</sup>Leff, Development in Brazil, p. 83. For further discussion on the effects of export policy of this nature, see Leff, "The 'Export Surplus' Approach to Foreign Trade in Underdeveloped Countries," Economic Development and Cultural Change, 1968, cited by Leff, ibid, p. 83.

<sup>19</sup>Maris Pone, "Recent Developments in Brazil: A Perspective," in Latin American Prospects for the 1970s (What Kinds of Revolutions?), ed. by David H. Pollock and Arch R. M. Ritter (New York, Washington, London: Praeger Publishers, Inc., 1973), p. 188. (Hereinafter referred to as Latin American Prospects.)

<sup>20</sup>Leff, "Export Stagnation and Autarkic Development in Brazil, 1947-1962," cited by Pone, in Latin American Prospects, p. 188.

<sup>21</sup>Little and others, A Comparative Study, p. 235.

<sup>22</sup>Ibid., p. 249.

<sup>23</sup>Exchange rates cited in Gordon and Grommers, Investment in Brazil, p. 134.

<sup>24</sup>Little and others, A Comparative Study, p. 245.

<sup>25</sup>Bergsman, Industrialization and Trade Policies, p. 101 and, Little and others, A Comparative Study, p. 457.

<sup>26</sup>Bergsman, ibid., Chapter 5, cited in Little and others, A Comparative Study, p. 245.

<sup>27</sup>Pone, in Latin American Prospects, p. 188.

<sup>28</sup>Bergsman, Industrialization and Trade Policies, pp. 100-101.

<sup>29</sup>Leff, Development in Brazil, p. 78.

<sup>30</sup>Bergsman, Industrialization and Trade Policies, p. 101.

<sup>31</sup>Ibid., p. 179.

<sup>32</sup>A.E. Blair, "Import Bottlenecks and Inflation: The Case of Brazil," Oxford Economic Papers (July, 1967), pp. 235-244, cited by Pone, in Latin American Prospects, p. 188.

## CHAPTER FOUR

### INTRA-INDUSTRY BIAS

In addition to the bias against exports, several economists<sup>1</sup> maintain that Brazilian economic policy in post-war years promoted an "intra-industry bias." The observed bias resulted from the tariff structure in combination with direct and indirect subsidies made available to particular industries by the government.

In 1957, a schedule of ad valorem duties was put into effect by the National Tariff Council. Duties varied according to the essentiality of the imported goods and the availability of similar products from local sources. On producers goods typical rates ranged from 10 to 100%, and on consumer goods they were frequently between 100 and 150%.<sup>2</sup> Thus, specific industries within the manufacturing sector were more heavily protected than others from international competition. Concurrent with differential tariff rates, low cost loans, preferential exchange rates and tariff concessions on capital imports were made available for selected industries. Following discussion of Brazil's post-war tariff structure is analysis of effects of the government's subsidization of preferred industries.

Theoretically, high duties on consumer goods reserved scarce foreign exchange for more "necessary imports" such as wheat, petroleum and a host of sophisticated intermediate and capital goods. High official tariff rates applied to several categories of intermediate goods and consumer durables, also created a domestic market for many lines of production initiated during the post-war years.

Nominal tariff rate differentials between consumer goods and producer good sectors and among industries within each sector, however, reveal only superficial evidence of industries which were "most preferred" or protected from international competition. Recent study of tariff structures and their effects on domestic industrial activity and trade reveals that nominal tariff rates are not an accurate measure of the actual protection accorded to various industries. The concept of "effective protection" has been used to obtain a more accurate measure of protection.

Effective protection is defined as protection given to an individual industry by the entire structure of tariffs. The measure takes account of the amount by which the prices of the industry's inputs are raised by tariffs, as well as the amount by which the price of the output can be raised because of the tariff on the output. It measures the amount by which value added in the protected industry can exceed value added measured at world market prices.

The purpose of estimating the amount of effective protection is to assess relative encouragement given to an individual industry. Theoretically, industries receiving higher effective protection would be more attractive candidates for domestic production than those receiving lower effective protection. Differing rates of effective protection are measures of the force which protection exerts in pulling factors of production into the protected activity. For example, if the measure of protection is the same for two industries, then there is usually no reason to suppose one would be encouraged relative to the other.<sup>3</sup>

A formula for the rate of effective protection on a specific product is the following:<sup>4</sup>

$$g_j = \frac{t_j - a_{ij}t_i}{1 - a_{ij}}$$

$g_j$  = effective protective rate on final product  $j$

$t_j$  = nominal tariff rate on final product  $j$

$t_i$  = nominal tariff rate on imported input  $i$

$a_{ij}$  = share of  $i$  in the total value of  $j$  in the absence of tariffs.

Assume a Brazilian soft drink manufacturer requires sugar syrup concentrate and artificial flavoring liquid as inputs to produce a soft drink. The sugar syrup concentrate accounts for 40% of total value of the final product (at world market prices), and the flavoring accounts for 20%. The nominal tariff rate on the finished soft drink is 100%, while nominal tariff rates levied on the imported syrup and flavoring are 50% and 80%, respectively. Assuming this firm requires no additional intermediate inputs in its production process (that is, the value added is 40%), the effective rate of protection would be 160% on the finished soft drink product.

$$\frac{t_j - a_{ij_1}t_{i_1} - a_{ij_2}t_{i_2}}{1 - a_{ij_1} - a_{ij_2}} = g_j$$

$$\frac{1.00 - (.50)(.40) - (.20)(.80)}{1 - (.40) - (.20)} = 160\%$$

The calculated rate of effective protection (160%) is greater than the nominal tariff rate applied to the final good (100%). Different tariff rates levied on inputs and final goods created higher effective

protection for final products, than would appear obvious from nominal tariff rates on the same products. Thus, manufacturing industries in which a significant share of total value was comprised of purchased inputs, were often more heavily protected than industries with smaller shares of value added accounted for in inputs.<sup>5</sup> Also, high effective protection relative to other manufacturing industries was greater the larger the differential between nominal tariffs on inputs and the tariff rate on the final product.

Table 4.1 shows partial results of a study of Brazil's trade policies during the 1949 to 1965 period. The last column shows the rate of effective protection for the particular industries. While the rates appearing below were calculated on the basis of the tariff structure in 1966, similar rates are maintained to have been in effect during the 1950s and early 1960s.<sup>6</sup>

Many highly protected industries during the 1949-1962 period exhibited high rates of growth, significantly lowering the ratio of imports to total domestic supply. Correlation between progress in import substitution and high effective rates of protection is apparent when comparing the two sectoral groupings in the lower half of Table 4.1. Higher growth rates and more import substitution were observed in the "highly protected infant" industries, relative to the "less-protected infant" industries.

On the other hand, several industries with the highest rates of effective protection had the lowest growth rates within the entire manufacturing sector. Explanations offered for Brazilian policy-makers' "favoritism" in regards to industries lacking great potential for further import substitution growth include concessions to traditional industrialists

TABLE 4.1

Relation Between Protection and Import Substitution in  
Brazilian Manufacturing

	Ratio of exports to domestic production, 1962	Ratio of imports to domestic production, 1949	'Import ratio', 1949 rela- tive to 1962	Effective protection 1966
Export Sectors: low initial import ratio and low protection:				
Wood products	0.193	0.122		15%
Food products	<u>0.185</u>	0.060		48
Daddies: low initial import ratio and high protection:				
Furniture	0.000	0.025		168
Rubber products	0.002	0.127		87
Leather products	0.069	0.104		72
Perfumes, soaps, etc.	0.000	0.007		6,710
Textiles	0.097	0.084		279
Clothing	0.001	0.002		246
Beverages	0.000	0.118		333
Tobacco	0.001	<u>0.000</u>		227
Highly Protected Infants: high protection and much import substitution:				
Electrical equipment	0.001	5.400	21.7	149
Transport equipment	0.008	4.470	37.0	99
Plastics	0.000	0.965	<u>41.7</u>	<u>124</u>
Less-protected Infants: lower protection and less import substitution:				
Non-metallic mineral products	0.002	0.270	3.52	47
Metallurgy	0.001	1.160	2.31	25
Machinery	0.009	1.860	2.95	12
Paper and products	0.004	0.471	1.90	73
Chemicals	0.076	8.730	10.31	26
Pharmaceuticals	0.004	0.277	2.73	10
Miscellaneous	0.003	0.399	2.33	81

Source: Bergsman, Industrialization and Trade Policies, Table 5.7  
p. 105.7

for political reasons; inadequate data on profits of private manufacturers and aversion to foreign competition in traditional high-cost industries.<sup>8</sup> In fact, the greatest protection was accorded to industries which had virtually achieved import substitution prior to 1949.<sup>9,10</sup>

Despite higher protection accorded to consumer goods industries, the growth performance of the intermediate and producer goods industries during 1945-1962 indicates that subsidies and special treatment in the form of low interest loans, special exchange rates for imported capital equipment and so forth were determining factors. Subsidies of this nature were not available to industries with low 1949 import coefficients.<sup>11</sup>

There is considerable evidence indicating the results of the government's various measures of subsidizing preferred industries during the post-war years. For example, the official exchange rate system and the ad valorem tariff affected, in practice, mainly producers in less-favored industries and buyers of final products in the consumers market. During the 1955-1960 period, approximately 80% of all equipment imports were brought in outside the foreign exchange market under Article 48 and outside the tariff system.<sup>12</sup>

Instruction 113 and Tariff Council rulings, tariff exemptions and special tariff rates, accorded to the imports of preferred industries—such as transportation, metallurgy, steel, rubber, and electrical equipment—clearly had substantial effects on establishment and expansion of those industries as shown in Table 4.2. The table illustrates changes in the industrial value added profile throughout the decade, or changing emphasis and expansion via an import substitution rationale. Production

was initiated in autos and other consumer durables and extended in several intermediate goods and capital goods industries.

TABLE 4.2

## Percentage Distribution of Industrial Value Added by Use

	1949	1959		1949	1959
Consumer Nondurables	61.9	46.6			
Textiles	19.7	12.0	Intermediate Goods	30.4	37.3
Clothing	4.3	3.6	Metallurgy	9.4	11.8
Food products	20.6	16.4	Nonmetallic minerals	6.5	6.1
Beverages	4.5	2.9	Leather	1.1	1.0
Tobacco	1.4	1.3	Chemical	4.7	8.3
Rubber	0.2	0.1	Wood	4.2	3.2
Printing and publishing	4.0	3.0	Paper	2.3	3.0
Chemicals	4.7	5.0	Rubber	1.7	2.9
Leather	0.2	0.1	Electrical equipment	0.5	1.1
Nonmetallic minerals	0.7	0.5	Capital Goods	5.2	11.1
Miscellaneous	1.6	1.8	Mechanical	2.1	3.4
Consumer Durables	2.5	5.0	Electrical equipment	0.8	1.0
Electrical equipment	0.3	1.9	Transportation equip-	2.2	6.7
Transport equipment		0.9	ment		
Furniture	2.2	2.2	Total	100.0	100.0

Source: Fishlow, "Origins and Consequences of Import Substitution," p. 334.<sup>14</sup>

The ratio of imports to total supplies of consumer durables fell from 60% in 1949 to approximately 6% in 1959, while capital goods "import participation" had fallen from near 75% to 33% during the same time period. Domestic production of consumer durables expanded at rates above all other sectors of industrial production during the decade with an average annual growth rate in excess of 24%.<sup>14</sup>

Another significant variable explaining the rapid growth of the "infant" industries in Table 4.1 is the preponderance of foreign investment in those industries during the post-war years. The Brazilian

government encouraged foreign investment via Instruction 113 and liberal profit remittance laws, in addition to all other subsidies granted to native firms in preferred industries.<sup>15</sup> It is estimated that foreign capital accounted for at least 42 to 55% of total capital invested in import-substituting manufacturing during the 1949-1964 period.<sup>16</sup>

In summary, the Brazilian government promoted intra-industry bias through the tariff structure which encouraged industrial growth behind protective barriers. However, in many cases, the simple logic of effective protection as a measure of the force pulling factors of production into the protected activity was superseded by subsidization of less-protected industries. Higher protection serving as encouragement for growth in some industries over others was effective with respect to "infant" industries; it was not effective in relation to Brazil's older industries.

# FOOTNOTES TO CHAPTER FOUR

<sup>1</sup>These economists include Raouf Kahil, Inflation and Economic Development in Brazil 1946-1963 (London: Clarendon Press, 1973); Arreas, Brazil: The People and the Power; Furtado, Economic Development of Latin America; and others.

<sup>2</sup>Gordon and Grommers, Investment in Brazil, p. 21. See also Little and others, A Comparative Study, p. 172.

<sup>3</sup>Bergsman, Industrialization and Trade Policies, p. 104.

<sup>4</sup>Cited in Mordechai E. Kreinin, International Economics, A Policy Approach (New York, Chicago, San Francisco, Atlanta: Harcourt Brace Jovanovich, Inc., 1971), p. 254. Following is the formula's derivation as it appears in Kreinin:

Value added in industry j, without any tariffs is:

$$v_j = p_j(1 - a_{ij}).$$

Value added in industry j, with tariffs on both the input and the output is

$$v_j' = p_j(1 + t_j) - p_j a_{ij}(1 + t_i) = p_j[(1 + t_j) - a_{ij}(1 + t_i)]$$

where  $p_j$  and  $p_j a_{ij}$  are the prices of the output and input, respectively.

$$\begin{aligned} g_j &= \frac{v_j' - v_j}{v_j} \\ &= \frac{p_j[(1 + t_j) - a_{ij}(1 + t_i)] - p_j(1 - a_{ij})}{p_j(1 - a_{ij})} \\ &= \frac{(1 + t_j) - a_{ij}(1 + t_i) - (1 - a_{ij})}{1 - a_{ij}} \\ &= \frac{1 + t_j - a_{ij} - a_{ij}t_i - 1 + a_{ij}}{1 - a_{ij}} \\ &= \frac{t_j - a_{ij}t_i}{1 - a_{ij}}. \end{aligned}$$

<sup>5</sup>Encouragement of manufacturing for the home market, relative to encouragement given to agriculture and to manufactures production for export can also be measured via analysis of effective protection rates applicable to industries within these groups. See Little and others, A Comparative Study, pp. 177-182 and pp. 436-437 for discussion of this type of analysis.

<sup>6</sup>Brazil's average rate of effective protection on manufactures was 118% in 1966, although the average rate was somewhat higher in the 1947-1962 period. (Cited in Little and others, A Comparative Study, pp. 436-437.) See also Appendix to Chapter 5, "Effective Rates of Protection," pp. 427-434, for discussion of methods used in calculating effective rates of protection and for comparisons of derived rates of protection using various methods; and p. 170 for brief discussion of frequently-used "Corden method" for calculation of effective rates of protection.

<sup>7</sup>See also pp. 104-109 in Bergsman for explanation of industrial groupings and further results of study.

<sup>8</sup>The over-riding concern of the Brazilian government throughout the post-war period was relieving pressure on the balance of payments. Protection became an established institution for dealing with a long-term problem. In addition, income maintenance within established industries was thought to be necessary for continued capital accumulation and economic "stability." These factors and others influencing policy-makers in establishing protectionist measures are discussed in Leff, Development in Brazil, pp. 17-19, 33, 112 (techniques used by industrialists in gaining concessions from the government), 115-118 (discussion on heterogeneity of industrialist group and government's role in "clientelistic politics"); Furtado, Diagnosis of the Brazilian Crisis (Berkeley and Los Angeles, California: University of California Press, 1965), pp. 100-121; and Little and others, A Comparative Study, pp. 117 and 127-128.

<sup>9</sup>Bergsman, Industrialization and Trade Policies, p. 106.

<sup>10</sup>See Little and others, A Comparative Study, Table 5.2, "Average Effective Protection for Manufactures in Relation to Official Exchange Rates," p. 174, for similar findings.

<sup>11</sup>Bergsman, Industrialization and Trade Policies, pp. 104-106.

<sup>12</sup>Gordon and Grommers, Investment in Brazil, p. 19.

<sup>13</sup>Figures cited from Fundação Getulio Vargas, Estrutura do Comercio Exterior do Brazil 1920-1964, Vol. 2 (Rio de Janeiro, 1969), Industrial Census, 1950, and 1960.

<sup>14</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 348.

<sup>15</sup>"Most BNDE (Brazilian National Development Bank) loans accorded to foreign investors during the 1950s and early 1960s went to intermediate goods industries. This is also shown in Morley and Smith, 'Import Substitution as an Industrialization Strategy in Brazil,' 1969 (mimeo), p. 10." Cited by Bergsman, Industrialization and Trade Policies, p. 109.

<sup>16</sup>Bergsman's calculation of percentage foreign capital in total investment appears in Industrialization and Trade Policies, p. 77. The same figures are maintained to be accurate in Fishlow, "Origins and Consequences of Import Substitution," p. 348; and in Morley, S. and Smith, G., "Import Substitution and Foreign Investment in Brazil," Oxford Economic Papers (n.s.) ff (March, 1971), 23, 126, cited in Bergsman, ibid., p. 77.

## CHAPTER FIVE

### INEFFICIENCY IN INDUSTRIAL SECTOR

Generally, Brazil's success in carrying import substitution back through producers goods was due to the combination of rapid growth and high level of demand, natural advantages in many sectors and strong government protection. However, many industries at the time of the early Sixties were featured by high costs, due to management inefficiency or operation at low scale of output.

Inefficiency within the Brazilian industrial sector was promoted by certain ISI policies of the period.<sup>1</sup> For example, protective tariffs allowed industries such as textiles and food processing to operate at higher than necessary costs. Under high protection these industries had little to fear in losing the domestic market to lower-priced imports available on the free international market.

Studies show that in the early Sixties factory costs per unit of output in Brazil were about 60% to 150% higher than in the United States.<sup>2</sup> Many consumer goods industries were inefficient, exhibiting high costs in comparison to firms in other industrializing countries such as Mexico and Argentina.<sup>3</sup>

Brazil's textile industry became extremely inefficient behind a high protective barrier during the 1947-1964 period. The textile industry was one of Brazil's most labor-intensive industries, and also exhibited low labor productivity in comparison to other traditional industries and modern industries.<sup>4</sup>

Part of low labor productivity can be attributed to the large portion of obsolete equipment utilized in the industry. However, replacement of wornout equipment and installation of new equipment was discouraged, due in part to the effects of ISI policies such as the bias against exports. The lack of export possibilities combined with the absence of subsidies for imported modern equipment (such as were available to preferred import substituting industries mentioned previously), worked against boosting productivity and therefore, efficiency in the textile industry. Table 5.1 exemplifies the industry's lack of productive capacity measured in modernity of equipment, relative to other Latin American countries.

TABLE 5.1

Modernity Indices for the Cotton Textile Industry							
	spindles				looms		
	modern	modern- isable	obsolete	total	auto- matic	mech- anical	total
Argentina	83	12	5	100	67	33	100
Brazil	21	42	37	100	25	75	100
Colombia	91	8	1	100	99	1	100
Chile	81	19	—	100	83	17	100
Mexico	66	5	29	100	52	48	100
Peru	31	18	51	100	70	30	100
Venezuela	98	—	2	100	91	9	100

Source:<sup>5</sup> Furtado, Economic Development of Latin America, Table 15.4, p. 128.

In the absence of high protective barriers, it is likely that the textile industry would have been forced to cut costs in order to retain its domestic market. Cost declines or greater efficiency might have resulted from installation of new equipment and modernization of equipment already in

use. In addition, greater efficiency would have made Brazilian textiles more competitive on the world market (if there had not been an overvalued export exchange rate). Given the fact that the textile industry does not significantly benefit from economies of scale or high capital to labor ratios,<sup>6</sup> the industry might have employed an equal number or more workers at higher wages throughout the post-war years without the policy bias against exports.

Protective barriers also encouraged inefficiency within the newer, basic industries,<sup>7</sup> by removing the stimulus for attempting to produce at the lowest possible per unit cost. Other ISI policies which promoted over-capacity and hence high costs in Brazil's newer industries were tariff concessions on capital equipment imports for preferred import substitution industries and low cost loans<sup>8</sup> made available for purchase of capital equipment. SUMOC's Instruction 113, which allowed foreign firms to import capital goods outside the tariff system and at preferred exchange rates, contributed to the post-war era's massive build-up of industrial productive capacity. Mass production economies were not realized in several of the newer industries which prevented low cost production, itself the result of proliferation of firms in industries (excessive sectoral fragmentation) with limited market possibilities, even for a small number of individual firms. These industries included numerous firms whose plants operated far below full-capacity output.<sup>9</sup>

High costs and general inefficiency were found in a large number of intermediate goods industries. "The outstanding horror stories of high costs--alcalis, synthetic rubber, one or two non-ferrous metals--are the results of direct government action in those sectors."<sup>10</sup>

Bergsman conducted detailed studies of the auto and textile industries in an effort to measure "costs" of protection, although these sectors were admittedly "extreme cases." He concluded that in 1966 only one firm in the auto industry would qualify as a "socially efficient operation" with consideration of high levels of output necessary for economies of scale and efficient use of complex technology. "The auto industry grew under very high protection and every type of subsidy and special arrangement in the government's 'bag of policies' were used...High protection and subsidization would have been unnecessary throughout the 1949-1962 period had Brazil settled for...one low-priced and one intermediate-priced passenger car, fewer utility vehicles, the same trucks and buses, and only 80 or 85% domestic production of inputs."<sup>11</sup>

Furtado supports the Bergsman analysis of the auto industry, and further remarks that a similar situation existed in certain electrical equipment and appliance sectors and several intermediate product sectors. For many enterprises, costs were high due to underutilization of capacity. High costs of production resulted in high prices, which hampered expansion of the domestic market.<sup>12</sup> Furthermore, there is statistical evidence of large margins of idle capacity in practically all areas of Brazilian manufacturing, apparent in the Fifties and early Sixties, and especially in the capital goods sector. Many capital goods firms were operating only one shift, which utilized 50% capacity.<sup>13</sup>

In summary, bad management and operation at low scale of output kept costs above the most efficient "best practice level" in processes that could have produced at internationally competitive costs if necessary, but did not as they were shielded by protection. The competitive spirit between

firms was dulled and efficiency was forgotten; the problem of prime cost and the scale of production lost their importance.<sup>14</sup> Estimates of unnecessary costs deriving from inefficient management and/or undercapacity production come to roughly three to four percent of Brazil's GDP every year during the time span 1954-1965.<sup>15</sup>

Without official protection a number of companies would probably have disappeared, lacking enough domestic and international market demand to operate at a level incurring reasonable returns.<sup>16</sup> Experts cited above contend that removal of all instances of very high protection could have cost Brazil very little of its industrialization and import substitution, and could also have produced great benefits by forcing older firms to improve their efficiency and by preventing excessive fragmentation within some newer industries.<sup>17</sup>

The consequences of "non-selective aid"--high effective rates of protection and virtual blanket subsidization of import substituting industry--was the sharing out of production among companies, and a considerable margin of unused capacity. The structure of protection increased industrial prices far more than prices of agricultural products with the simultaneous deterrence of traditional agricultural exports as well as manufactured exports.

# FOOTNOTES TO CHAPTER FIVE

<sup>1</sup>A significant aspect of ISI policies (such as tariff concessions and preferential exchange rates on capital imports, and low cost loans for purchasing equipment imports) was the capital-intensive nature of the industries established in the post-war period. Exemplary of Brazil's capital-intensive industry during the Fifties decade was the increase in installed horsepower per worker, which rose by almost 50% between 1949 and 1959. (Figures from Kent Hughes, "Factor Prices, Capital Intensity and Technological Adaptation," in Contemporary Brazil, ed. by Jon Rosenbaum and William Tyler (New York: Praeger Publishers, Inc., 1972), p. 126.) (Hereinafter referred to as "Technological Adaptation.")

Preference of capital-intensive industry is also reflected in the growth of the producer goods sector. For example, producer goods, represented 38.1%, 41.5% and 56.5% of total value produced in 1940, 1950, and 1960, respectively. On a comparative basis, the increase in value of producer goods from 1940 to 1960 was 508%, and 248.8% for consumer goods. (Figures from Teotonio dos Santos, "Foreign Investment and the Large Enterprise in Latin America: The Brazilian Case," in Latin America: Reform or Revolution? ed. by James Petras and Maurice Zeitlin (Greenwich, Connecticut: Fawcett Publications, Inc., 1968), p. 435.) (Hereinafter referred to as "Foreign Investment.")

See also Fishlow, "Origins and Consequences of Import Substitution," p. 351 (for figures on capital and labor factor productivity, and labor force shares in the industrial sector during the years 1949 to 1964); Little and others, A Comparative Study, Chapter 3, II, "The Allocation and Utilization of Capital"; Bergsman, "Foreign Trade Policy and Development," in Contemporary Brazil, ed. by Jon Rosenbaum and William Tyler (New York: Praeger Publishers, Inc., 1972). (Hereinafter referred to as "Foreign Trade Policy."); Baer, "Import Substitution in Latin America," 102-104, for further discussion of capital-intensive production bias and consequences.

<sup>2</sup>Baranson, Auto Industries in Developing Countries, 15 (Baltimore, 1969); Bergsman, Industrialization and Trade Policies, and Furtado, Economic Development of Latin America, cited in Werner Baer, "Import Substitution and Industrialization in Latin America: Experience and Interpretation," Latin American Research Review, Vol. VII, No. 1 (Spring, 1972), pp. 104-105. (Hereinafter referred to as "Import Substitution in Latin America.")

<sup>3</sup>Ibid.

<sup>4</sup>dos Santos, "Foreign Investment," p. 437.

<sup>5</sup>Figures cited in ECLA, La Industria Textil en America Latina, 1968.

<sup>6</sup>Furtado, Economic Development of Latin America, p. 126.

<sup>7</sup>See Footnote 1 above for references.

- <sup>8</sup>Gordon and Grommers, Investment in Brazil, pp. 12-45, and 93-108.
- <sup>9</sup>Baer, "Import Substitution in Latin America," p. 105.
- <sup>10</sup>Bergsman, Industrialization and Trade Policies, p. 43.
- <sup>11</sup>Ibid., p. 149.
- <sup>12</sup>Furtado, Economic Development of Latin America, p. 136.
- <sup>13</sup>Bergsman, Industrialization and Trade Policies, pp. 148-149.
- <sup>14</sup>See Hughes, "Technological Adaptation," for discussion of how protectionism discourages efficiency and results in high costs and unemployment.
- <sup>15</sup>Bergsman, "Commercial Policy, Allocative Efficiency and 'X-Effects,'" (January, 1971), mimeo, cited by Bergsman, "Foreign Trade Policy," p. 75.
- <sup>16</sup>True misallocation--the inducement of processes that are inherently inefficient in Brazil--also existed in the 1945-1967 period, but costs are estimated under 0.50% of GNP attributable to this factor. Cited in Bergsman, "Foreign Trade Policy," p. 75.
- <sup>17</sup>Bergsman, Industrialization and Trade Policies, p. 73.

## CHAPTER SIX

### MONOPOLISTIC MARKETS

The Brazilian economy contained a large number of monopolistic enterprises throughout its various phases of import substitution industrialization. For example, in 1942, Corwin D. Edwards of the Cooke Mission to Brazil made the following observations: "In virtue of the relatively small volume of the Brazilian market for various industrial products and the official protection of commercial associations, the formation of national monopolies and agreements to restrict business presents probabilities of easier and more rapid development in this country than in the United States in its period of industrial formation. Between the two wars Brazil was considered by many international cartels as a marketing zone that these large enterprises divided up among themselves. Thus in certain sectors Brazil faced restrictions in international competition..."<sup>1</sup>

Insofar as the post-war era is concerned, it is difficult to determine if economic policies implemented during these years directly encouraged growth of monopoly markets. Rather, policies which facilitated growth of import-substituting industries--even for products with extremely limited domestic markets and available at much lower prices in the international market--contributed to formation of monopoly market structures.

Examples of policies indirectly encouraging growth of monopolies were overvalued exchange rates and tariff concessions for capital imports destined to import-substituting industries. Substantially lower fixed costs were thus made possible for preferred industries. However, in many

instances, low costs were not passed on to consumers in the form of lower prices.

Protectionist barriers--high tariffs and undervalued exchange rates for most imported goods--gave consumers little choice but to purchase domestically-produced goods. In short, protected industries had considerable leeway in pricing products far above costs of production, since identical imported goods could not be purchased at free market exchange rates and without high tariffs.

Another example of the Brazilian government's "encouragement" of monopoly was the lack of anti-trust legislation. The absence of such laws allowed large companies to split the market among themselves, thereby permitting them to drive competitors out of business via price wars and then follow up with merger. There were no laws created to effectively prevent monopolistic-pricing techniques such as price-fixing agreements or tacit price leadership.

Findings in a study by the Institute of Social Sciences of the Federal University of Rio de Janeiro, conducted in 1963-1965,<sup>2</sup> reveal the magnitude of industrial monopoly. Pervasive monopoly within the industrial sector, and especially among basic industries is revealed by the study.

The study discussed both concentration of ownership (financial concentration) and the extent of market concentration (oligopoly and monopoly). The study lists 276 economic groups or consortia<sup>3</sup> with capital assets of more than 900 million cruzeiros apiece. The "multibillionaires," consisting of 55 groups--each with capital assets of over four billion cruzeiros--were examined separately. The multibillionaires were found to be the indisputable leaders of the principal sectors in which they

moved, dominating a substantial part of the production and circulation of goods.<sup>4</sup>

The study revealed that the majority of multibillionaire groups were foreign-owned (52.7%). Foreign multinational groups predominated in distribution, industrial services, manufacture of durable goods, and heavy machinery, while native multibillionaire groups outnumbered the foreigners in import-export businesses, banking, and the non-durable goods industries. As for the sector of principal activity, 78.1% of the multibillionaires devoted themselves to industry.

A sample was taken of the "billionaires," consisting of 83 groups from an estimated universe of 221. Billionaire groups were those with capital assets at 1 to 4 billion cruzeiros. Brazilian groups predominated in the billionaire groups (65%); thus, the sample was composed of 29 foreign groups and 54 national groups. Of the total 83 groups, 10 foreign and two national groups were leaders--foremost or sole producers--in the principal activity in which they were engaged. A closer analysis of the foreign groups revealed that 14 of the 29 billionaire foreign groups operated in oligopolistic markets, while four groups worked under conditions of monopoly.<sup>5</sup> Table 6.1 illustrates the oligopolistic nature of industrial markets prevalent in Brazil during the 1950 to 1964 period.

This brief account of the Federal University's study indicates that a large portion of the industrial sector consisted of monopoly or oligopoly markets. A primary "disadvantage" resulting from existence of monopoly is the freedom monopolists have in pricing their products above costs of production (that is, at prices above those that would prevail in competitive

TABLE 6.1

Oligopoly in the Metallurgical Industry  
of Sao Paulo

Branches of activity	Number of enterprises	Percent of production by 3 largest enterprises
Metal structures	8	76
Agricultural implements	9	97
Plows	17	76
Electric motors	9	86
Refrigerators	8	91
Washing machines	6	82
Scales	19	74
Elevators	6	99

Source: dos Santos, "Foreign Investment," Table 3, p. 436.<sup>6</sup>

markets). The amount of "over-pricing"--monopoly profits--realized within the Brazilian economy is estimated to have been a significant proportion of gross national product in the post-war years. For example, the "costs of protection" arising from resource misallocation and monopoly profits in the 1954-1964 decade are estimated to have been nearly 20% of Brazil's GNP. Four percent was the result of misallocation of resources. The rest consisted of monopoly profits plus avoidable high costs. This implies that moving to free trade would have resulted in a saving amounting to 4% GNP, through substitution of more profitable export activities for less profitable import substituting activities. A further larger "saving" estimated between 10 to 20% of GNP would have resulted from cost reductions and elimination of monopoly profits.<sup>7</sup>

The "savings" from elimination of monopoly profits would have amounted to a direct savings for consumers of goods and services produced by monopoly

enterprises. Dispensing with the margin of monopoly profits, or overpricing, signifies an income transfer from profit-takers to other groups in the economy. Larger real incomes spent by greater numbers of people might have provided larger markets for some consumer goods industries, thereby stimulating further growth in those industries. In addition to possible "welfare effects"--higher standards of living realized by employed individuals during the post-war years--elimination of monopoly profits could have been conducive to a higher level of employment within the economy. Expansion of employment opportunities would have followed from growth of labor-intensive consumer goods industries, generated by income transfers from profit-takers to workers.

# FOOTNOTES TO CHAPTER SIX

<sup>1</sup>TVA engineer Morris L. Cooke led the American Technical Mission to conduct a preliminary survey of the San Francisco River basin and to study hydro-electric possibilities of the Paulo Alfonso Falls in Northeast Brazil. Additional information of the Mission's findings is included in Stefan R. Robock, Brazil's Developing Northeast: A Study of Regional Planning and Foreign Aid (Washington, D.C.: The Brookings Institution, 1963), pp. 81-82.

<sup>2</sup>Mauricio Vinhas de Queiroz, "Os grupos multibillionairios," Revista do Instituto de Ciências Sociais (Universidade Federal do Rio de Janeiro), January, 1965. See Ianni, Crisis in Brazil, pp. 157-158, for further results of ICS study; and Galeano, Open Veins of Latin America p. 238 for partial results of a study by a Parliamentary Commission of the Brazilian government in 1967-1968. The study reveals extensive foreign control in industries such as ocean transport (82% foreign), motor vehicle production (100%), air transport (67%), tire manufacturing (100%), cement production (90%), and others.

<sup>3</sup>Economic "groups" are defined as those groups of establishments and/or firms under the ownership (majority equity) of the same head or company office. In some cases, firms were found in several industries under the same owner(s).

<sup>4</sup>Ianni, Crisis in Brazil, p. 157.

<sup>5</sup>dos Santos, "Foreign Investment," p. 436.

<sup>6</sup>Figures cited from Industrial Directory for July 1963 taken from CEPAL, Auge y declinacion del proceso de substitucion de importaciones en el Brasil, p. 437.

<sup>7</sup>Bergsman, Industrialization and Trade Policies, p. 104.

## CHAPTER SEVEN

### GROWTH OF FOREIGN INVESTMENT

Foreign investment in the Brazilian economy deserves attention due to (1) its very nature of transplanting capital-intensive, sophisticated technology upon its arrival; (2) dominance of foreign capital in the country's most rapidly expanding industrial sectors; and, (3) its influence on the feasibility and/or profitability of a large number of inter-related public and private native enterprises. These three aspects of foreign investment can be examined in light of both positive and/or negative effects on the Brazilian economy.

However, certain methodological difficulties are inherent in measuring benefits and costs of foreign investment in the Brazilian economy. An attempt to deal with these difficulties involves considering both quantitative and qualitative measures of foreign influence, as well as "weighing" effects according to priority given to specific economic goals. Examples of goals which can be ranked in a hierarchy of priorities are as follows: employment growth; modernization and economic efficiency; economic self-sufficiency; and, growth of self-sustaining economic activity. There is evidence that foreign investment in Brazil resulted in progress toward one of the above goals, while simultaneously limiting achievement of other goals. Presented in the following are analyses of the extent and the observed effects of foreign investment in Brazil during the post-war years. Quantitative estimates of designated "costs" of foreign investment, as well as description of the nature of some foreign firms' business practices are included.

During the post-war period, foreign companies enjoyed the same protective legislation and subsidies that Brazilian industries enjoyed. In addition, foreign firms were granted special privileges not available to natives. Examples of these privileges are SUMOC Instruction 113, preferred exchange rates for foreigners' capital imports, and tax concessions instituted by the National Tariff Council.<sup>1</sup> Consequently, absolute and proportional levels of foreign investment in total investment greatly increased throughout the 1947-1964 period.<sup>2</sup> In 1950, for instance, total accumulated United States direct public and private investment in manufacturing amounted to \$285 million, and by 1965 had grown to \$722 million.<sup>3</sup> In 1946, the flow of foreign private direct investment from all sources amounted to \$44 million; in 1955, it amounted to \$82 million, and by 1961, had grown to \$147 million.<sup>4</sup>

Foreign capital was extremely concentrated in basic industrial sectors. In fact, 80 to 90% of foreign industrial investment between 1955 and 1959 was made in basic industry such as the transportation equipment, metallurgy and chemical sectors. The bulk of the remainder was made in light mechanical and electrical industries.<sup>5</sup>

The study mentioned previously revealed that foreign companies exercised high degrees of control within particular markets.<sup>6</sup> Table 7.1 illustrates the concentration of foreign investment, or high degrees of control by foreign billionaire groups in the markets within which they produced. Of all foreign billionaire groups, 65% were found in markets where 75-100% of total output was produced by foreign groups.

TABLE 7.1

## Degree of Control of the Market by Foreign Billionaire Groups (1960s)

Degree of control	Foreign groups	Percent
Over 90% foreign	10	34
Great	9	31
Medium	4	14
Little	6	21
Total	29	100

Source: dos Santos, "Foreign Investment," Table 11, p. 448.<sup>7</sup>

Further results of the study appear in Table 7.2. The table shows the prevalence of foreign billionaire over native billionaire groups in the position of leading producers within respective markets. The "pre-dominant core" is defined as those groups providing 70% and over of total output within markets of respective groups' principal activity.

TABLE 7.2

## Position of Billionaire Groups in the Market (1960s)

Position in the market	Foreign Groups (%)		National Groups (%)	
Predominant core, or first producer, or only producer	17	59	8	15
Outside the predominant core	12	41	46	85
Total	29	100	54	100

Source: dos Santos, "Foreign Investment," Table 12, p. 449.<sup>8</sup>

The study also revealed that foreign groups accounted for most of capital assets held by all multibillionaire and billionaire groups. For example, among the multibillionaire groups, national groups had total capital of 219 billion cruzeiros. In contrast, the 31 foreign groups had a total capital of 306 billion cruzeiros.<sup>9</sup>

Private foreign investment was concentrated in capital-intensive enterprise. Capital-intensive production was not conducive to expansion of employment opportunities alongside growth of the economic sector in which foreign investment was made. Assuming growth of employment was desirable, foreign investment had a negative effect in that it created a bias against labor inputs.

In reference to positive effects of dominance of foreign capital in some industrial sectors, foreign firms' greater experience with modern methods of production and management made possible production of large quantities of output at low unit costs. This experience may have resulted in larger quantities of output and at lower prices than would have been the case without foreign investment in some industries. In addition, foreign firms' efficiency probably generated high levels of efficiency within certain established native-controlled enterprises, as they attempted to compete with foreign companies.

However, there is also evidence that increasing foreign control within the industrial sector simultaneously initiated negative effects. For example, some foreign companies used greater sophistication in production and management and large financial resources to drive native producers out of markets.<sup>10</sup> By gaining monopoly control in certain product markets,

some foreign firms realized substantial monopoly profits. Aside from costs of monopoly (discussed in previous chapter), increasing foreign control in certain product markets may have limited growth of Brazilian economic self-sufficiency.<sup>11</sup>

Both positive and negative effects of foreign investment with respect to feasibility and profitability of native enterprises were observed in the post-war period. For instance, foreign investment facilitated the establishment of native firms supplying inputs to foreign firms. However, many new native firms were capital-intensive. Thus, foreign investment had the indirect effect of stimulating native firms' economic activity without great absorption of labor inputs. In addition, certain labor-intensive lines of production were probably abandoned, or never considered by native businessmen in favor of capital-intensive enterprises to serve the needs of foreign firms.

During post-war years, substantial public and private investment was made in transportation (including railroads and other public transport systems), electricity production and distribution, petroleum refining and distribution, and in marketing systems such as construction of warehouses and port facilities. In fact, in the later 1950s over 80% of all infrastructural additions sponsored by the Brazilian government were financed with foreign public and private capital.<sup>12</sup>

Alongside Brazil's increasing modernization and infrastructural development financed by foreign capital inflows there were numerous costs. One important cost due to foreign investment which attained major proportions in the 1960s, was debt repayment, interest and amortization capital outflows. By 1962 amortization and service charges on the national

debt amounted to one-third of total exports.<sup>13</sup> The increase in external financing of the government's investment represented the country's growing liability to the "rest of the world" during the 1955-1962 period, and at a time when growth of export earnings was nearly stagnant.

At the same time foreign public capital inflows were increasing, foreign private direct investment was also increasing. Alongside private foreign private capital inflow were increasing capital outflows to parent companies and other foreign investors in the form of profit remittances, royalties and technical service fees. In 1958, total capital remittances linked to the private sector came to \$479 million,<sup>14</sup> while foreign private capital inflow in 1958 was estimated at \$110 million.<sup>15</sup> Between 1959 and 1962, the outflow of interest and profits on foreign private investment was almost doubled.<sup>16</sup> Thus, the Brazilian economy was subject to increasing costs in the form of capital outflows, resulting from high levels of foreign public and private investment. Capital outflows in combination with nearly stagnant export earnings contributed to balance of payments difficulties in the early 1960s.

An important characteristic of Brazil's ISI policy which catered to import substituting foreign investment--and conceivably another cost of foreign investment--was that Brazilian enterprises were often forced to attach themselves to multinational corporations. Native firms' attachment to foreign companies was necessary to take advantage of SUMOC's low import charges on equipment (Instruction 113),<sup>17</sup> and also to gain access to low cost loans and other privileges not available to native industrialists. In fact, studies of multinational corporations' business practices<sup>18</sup> of

the later Fifties and early Sixties, revealed increasing participation in joint ventures.<sup>19</sup> For example, between 1946 and 1958-1964, U.S. investment made in wholly-owned affiliates declined from 83 to 44% of total new investment.

Joint ventures were often dependent on imports of materials, parts or machinery from the foreign parent firm. "In such cases, the foreign partner holds the upper hand and can threaten to cut off the needed inputs. Similarly, parent corporations often had agreements to supply technical assistance to their affiliates....Still another avenue of foreign control was opened when the parent was a creditor to the affiliate and supplied long term loans."<sup>20</sup>

During the 1947-1964 period, foreign firms were observed to exercise control even without majority equity in joint ventures.<sup>21</sup> A common method for exercising control of the enterprise was the management contract, which involved mutual agreement that the foreign partner would control key decisions. Other methods foreign firms utilized in controlling a joint enterprise were dispersion of stock among local investors, and foreign ownership of the largest bloc of stock.

When the "benign environment" for foreign investment began to change,<sup>22</sup> the flow of direct foreign private investment declined, and this contributed to ending the rapid growth phase of ISI. Foreign private investment in the industrial sector fell in 1962-1963 to 50% of its former high of \$147 million in 1961.<sup>23</sup> In 1965, a negative growth rate was registered for the industrial sector, the first such growth rate in 17 years.<sup>24</sup>

Direct foreign private investment accounted for an estimated 30% of capital formation in manufacturing alone.<sup>25</sup> The withdrawal of 50% of

foreign private capital inflow in 1962-1963 implies a direct decline in manufacturing investment of 15% in that period. Considering the increased participation of foreign capital in joint ventures in post-war years, and control of native companies' investment and production plans, the impact of declining foreign investment attains even greater significance.<sup>26</sup>

In retrospect, then, Brazil's ISI policies geared to preferred modern industry encouraged foreign participation by virtue of 1) the discontinuance of imports from traditional suppliers (several multinational subsidiaries were established in Brazil when the parent firm realized protectionist barriers meant loss of the Brazilian market); 2) foreign firms' experience in basic industries' technology, sophisticated marketing and distribution systems; 3) direct subsidy of foreign businesses over native enterprises (Instruction 113 and special privileges granted by the National Tariff Council); 4) lack of effective legislation against monopolistic business practices; and 5) liberal profit remittance laws.

The government's cultivation of foreign investment provided for the Brazilian economy's vulnerability to decisions made outside the control of the native business community. Aspects of foreign companies' control of several industries through the presence of foreign companies in monopolistic and oligopolistic markets, and foreigners' participation in joint ventures, were instrumental in precipitating the mid-Sixties' economic recession. By virtue of foreign firms' entrenchment in the Brazilian economy, foreign investment withdrawals facilitated, to a large degree, the decline in total industrial investment and output levels experienced in the 1963-1966 period.

FOOTNOTES TO CHAPTER SEVEN

<sup>1</sup> dos Santos, "Foreign Investment," p. 448.

<sup>2</sup> See "Extent of External Control of Latin American Industry," in Furtado, Economic Development of Latin America, pp. 174-178 for figures on proportional and sectoral control.

Foreign investment was substantial before the post-war years, also. For example, in 1940 it is estimated that "...39.7% of Brazil's industrial enterprises were foreign-owned." (Figure taken from Vieira, "Industrial Development in Brazil," p. 171.)

<sup>3</sup> Vieira, "Industrial Development in Brazil," p. 172.

<sup>4</sup> Arraes, Brazil: The People and the Power, pp. 67-68. Similar figures appear in Fishlow, "Origins and Consequences of Import Substitution," p. 350.

<sup>5</sup> Ianni, Crisis in Brazil, p. 155. Figures cited from Bank of Brazil, Cf., "A Instrução 113 a serviço da Indústria Automobilística," O Estado de São Paulo (August 13, 1959). Similar figures appear in dos Santos, "Foreign Investment," p. 435.

<sup>6</sup> Supra, pp. 71-72.

<sup>7</sup> Figures cited in Instituto de Ciências Sociais (ICS), Study on economic groups.

<sup>8</sup> Figures from ICS study.

<sup>9</sup> Cited in dos Santos, "Foreign Investment," pp. 446-448 and Galeano, Open Veins of Latin America, p. 237. See also Ianni, Crisis in Brazil, pp. 154-159 for additional evidence of foreign economic control encouraged by SUMOC Instruction 113 and concessions made effective through the Office of Foreign Commerce (CACEX).

<sup>10</sup> International monopolies were also better-equipped to engage in price-cutting in order to gain monopoly of Brazilian markets. Brazilian firms could not usually survive "price wars" since they had little recourse but to appeal for credit from wherever they could get it. Many firms throughout the post-war years found themselves the victims of multinational corporations' price-cutting tactics and the banks denied credit; a common event was merger into a foreign enterprise or, more rarely, complete discontinuance of production. See Galeano, "Brazil and Uruguay: Euphoria and Agony," Monthly Review (February, 1972), 25-43 and "The Denationalization of Brazilian Industry," Monthly Review (December, 1969), 11-30 for further details and discussion.

<sup>11</sup>See Footnote 10 for sources of detailed discussion of how foreign investment encouraged Brazilian economic dependency.

<sup>12</sup>Galeano, "The De-Nationalization of Brazilian Industry," p. 19.

<sup>13</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 349.

<sup>14</sup>Leff, Development in Brazil, p. 67. Figures taken from Brazilian Monetary Authority statistics.

<sup>15</sup>Ibid., p. 61.

<sup>16</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 349.

<sup>17</sup>"Eugenio Gudín, an economist who is very sympathetic to foreign investment, calculated that under...SUMOC's Instruction 113 alone, Brazil gave one billion dollars to foreign firms." (Cited in Galeano, "The De-Nationalization of Brazilian Industry," p. 19.)

<sup>18</sup>Wolfgang Friedman and George Kalmanoff, eds., Joint International Business Ventures (New York and London: Columbia University Press, 1961), p. 19; and "Study of U.S. Investments Reveals Move to Joint Ventures, Acquisitions," in Business Latin America (January, 1970), p. 20. Cited in Susanne Bodenheimer; Dave Denning; Fred Goff; Marc Herold; Marilena Oliveira; Sergio Schneider and Harlan Stelmach, Yanqui Dollar: The Contribution of U.S. Private Investment to Underdevelopment in Latin America (New York and Berkeley, California: North American Congress on Latin America, 1971), pp. 37 and 64. (Hereinafter referred to as Yanqui Dollar.)

<sup>19</sup>Bodenheimer and others, Yanqui Dollar, p. 37.

<sup>20</sup>Ibid.

<sup>21</sup>See Furtado, Economic Development of Latin America, Chapter 18, "New Forms of External Dependence," pp. 166-178; Gordon and Grommers, Investment in Brazil, Chapter XI, "Joint Business Ventures Under Brazilian Government Policy," pp. 137-144; and, Bodenheimer and others, Yanqui Dollar, pp. 37-38 for discussion of foreign firms' methods of control.

<sup>22</sup>Attempts to curtail profit remissions were successful in 1962 and were put into effect by the Goulart regime (1961-1964).

<sup>23</sup>Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 15.

<sup>24</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 350.

<sup>25</sup>Ibid., p. 350.

<sup>26</sup>It is to be noted that the Brazilian government had great difficulty in securing external financing for public investment projects beginning in 1961, and was also denied previous amounts of compensatory finance on the public debt by international lending agencies. In short, alongside private investment withdrawals, foreign public investment was also being withdrawn which depressed a significant amount of construction and manufacturing activities both in terms of infrastructural development and manufacturing projects managed by the government.

## CHAPTER EIGHT

### IMPORT CONSTRAINTS

Considering that economic policy was formulated on the basis of encouraging import substitution for at least two decades preceding 1964, a decline in the import coefficient--total imports as a percentage of GDP--might be expected. Ironically enough, evidence suggests this did not appreciably occur, especially after 1950. Table 8.1 shows estimates of Brazil's import coefficient throughout the 1947-1964 period. By using the overall import price index and the national income deflators to deflate imports and GDP, respectively, a real import coefficient was derived (Column 1). The import coefficient fluctuated, and actually rose above the 1947 figure in 1950, 1955 and 1968. Employing current prices--not deflating--it can be seen that following the immediate post-war years, the fall in the import coefficient was not pronounced (Column 2).

TABLE 8.1

Import Coefficients for Selected Years 1947-1968

Year	Column 1	Column 2
	Constant (1953) Prices Import Coefficient (%)	Current Prices Import Coefficient (%)
1947	5.67	13.87
1948	4.69	11.25
1949	5.10	9.58
1950	5.93	8.01
1955	7.14	8.66
1960	4.53	8.32
1966	5.56	7.42
1968	5.88	8.68

Source: William G. Tyler, "Manufactures Export Promotion in a Semi-industrialized Economy: The Brazilian Case," in Journal of Development Studies, X, No. 1 (October 1973), 4.<sup>1</sup>

The import "constraint" which became observable by 1961 was the result of several factors, including particular ISI policies. One of the most significant contributory factors was the irreducible quantity of necessary imports. Certain "hard core" imports were indispensable to the industrial sector. In fact, an increasing volume of imports was required for the type of industrial development initiated during the 1940s through the early 1960s. Capital-intensive production alongside high growth rates required greater imports of capital goods to provide inputs for the import substituting industries. Moreover, since an important part of the substitutive process in Brazil was in consumer durables, an added fillip to increasing capital goods import needs was the demonstration effect of consumption patterns elsewhere. The demonstration effect accurately characterizes, for example, the introduction of auto manufacturing in Brazil where early production exceeded previous limited imports.<sup>2</sup>

An example of ISI policies which militated against decreasing the overall import coefficient was provision of cheap loans via the Brazilian National Development Bank for preferred basic industries.<sup>3</sup> As mentioned previously, preferred industries were capital-intensive, and therefore required larger quantities of imported capital good inputs than labor-intensive industries.<sup>4</sup> Additional examples of "import-creating" ISI policies were the indirect subsidies to capital-intensive industries involving special exchange rates and tariff concessions.

Subsidization of capital imports also worked to the detriment of the native capital goods industry, which created yet another stimuli<sup>5</sup>

toward increasing imports rather than employing domestic-made inputs. Although the domestic capital goods industry was supplying approximately 60% of total equipment needs by the late 1940s,<sup>5</sup> government-sponsored tariff-free imports of capital goods and under preferential exchange rates, put domestic firms at a disadvantage.<sup>6</sup>

Cultivation of foreign investment during the period contributed to increasing the import quantum. SUMOC's Instruction 113 and the National Tariff Council's directives subsidized foreign firms' machinery imports over domestically-produced inputs. It is reasonable to assume Brazilian policy-makers were aware of the fact that subsidizing foreign firms' machinery imports could increase import quantum. However, foreign investment became an important component of the new import substitution characteristic of the 1950s ostensibly for two reasons: transfer of needed technology to the modern sector and self-financing in foreign exchange of needed capital equipment. The self-financing aspect of foreign capital was thought necessary in order to mitigate the effect of import constraints.

Nonetheless, investment practices of foreign subsidiaries were not highly conducive to relieving the import constraint because a large portion of investment was not paid for by capital from abroad. For example, in the period 1958 to 1964 only 18.9% of manufacturing subsidiaries' investment was financed with funds obtained abroad, while 36.3% was obtained in local capital markets.<sup>7,8</sup>

Failure of the import coefficient to decrease alongside export stagnation resulted in current account balance of payments deficits.

Implicit policy dictated that poor Brazilian export performance could be ignored by using coffee earnings or capital inflows to guarantee sufficient foreign exchange for capital goods.<sup>10</sup>

The years 1946 to 1961 were characterized by heavy balance of payments deficits on current account. From a positive balance of \$15 million in 1956, deficits ranging between \$176 to \$521 million were registered in the following seven years as shown in Table 8.2.

TABLE 8.2

Brazilian Balance of Payments Deficits  
on Current Account, 1957-1963  
(\$ million)

Year	Deficit
1957	295
1958	267
1959	337
1960	521
1961	276
1962	176
1963	212

Source: Little and others, A Comparative Study, p. 399.<sup>11</sup>

"To cover cumulative deficits of \$1.5 billion, monetary authorities resorted to compensatory operations such as stabilization credits from the International Monetary Fund (IMF) and the U.S. Export-Import Bank, as well as external reserves. Brazil's gold and foreign exchange holdings fell from \$760 million in 1946 to \$470 million at 1961's end."<sup>12</sup>

However, in the early Sixties, the Brazilian government encountered increasing difficulty in obtaining compensatory finance. Since Brazil's

rate of inflation and public deficits were rising at an alarming pace, some lending agencies required certain guarantees by the Brazilian government before granting additional finance. The nature of the requirements was that the government undertake strigent stabilization monetary and fiscal policies. Due to the existing unstable political environment, Brazilian officials were unable to meet agencies' requirements. Thus, the import constraint became increasingly serious in the early 1960s, as compensatory finance was no longer available in sufficient quantity.<sup>13</sup>

The balance of payments situation became critical in 1961 with one-fifth of the country's foreign debt to be paid in that year. Debt accumulations from 1955 to 1962 led to Brazil's \$1.3 billion debt servicing bill in 1964-1965. "Both voluntary and involuntary external debts came to roughly \$3 billion in 1964-1965."<sup>14</sup>

In summary, several effects of ISI policies during the 1947-1964 period contributed to, and reinforced each other's effects in creating Brazil's "import bottleneck." The government's preference for basic industry partially explains the policy orientation towards foreign investment which manifested in the establishment of foreign capital-intensive firms. Promotion of capital-intensive import substitution industry--both domestic and foreign--created increasing import needs. Preferred exchange rates and tariff relief on equipment imports operated to the detriment of the native capital goods industry. Protectionist policy measures increased the import quantum over what it would have been without the cost advantages given to capital versus labor inputs, and equipment

imports versus domestic-produced equipment. The combination of the "import-creating" nature of Brazil's ISI policies, and the implicit bias against exports discussed in Chapter 3, resulted in huge deficits.

# FOOTNOTES TO CHAPTER EIGHT

<sup>1</sup>Figures from "A Comercio Exterior de Brasil," Conjuntura Economica, and Centro de Contas Nacionais of the Fundação Getúlio Vargas. Similar figures of import coefficients appear in Baer, "Import Substitution and Industrialization in Latin America," p. 103.

<sup>2</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 349.

<sup>3</sup>Furtado, Economic Development of Latin America, p. 146. "Older, well-established firms such as textiles and food-processing received almost nothing from the Brazilian National Development Bank." (Cited in Leff, Development in Brazil, p. 53.)

<sup>4</sup>Import-creating policies were not limited to post-war years. For instance, implicit overvaluation through maintaining a constant exchange rate from 1939 through approximately 1953 (even though inflation exceeded that in the United States) gave industrial imports significant real cost advantages to the firm. In fact, imports of manufactures destined for the domestic industrial sector actually increased in real terms between 1939 and 1949 providing in the aggregate, import substitution in reverse. The quantum of increasing absolute imports during the 1939-1949 period is verified in several publications including Fishlow, "Origins and Consequences of Import Substitution"; Furtado, Economic Development of Latin America; Tyler, "Manufactures Export Promotion in a Semi-Industrialized Economy: The Brazilian Case"; and Hughes, "Technological Adaptation."

<sup>5</sup>Leff, Development in Brazil, p. 54.

<sup>6</sup>The domestic capital goods industry was provided almost no finance by the Banco do Brazil to compete with foreign capital goods companies. "...although supplier credits were one of the imports' chief competitive advantages,...native companies were provided almost no finance to compete on this key point. (Footnote: As late as 1963, the Development Bank explicitly reaffirmed this policy. See XII Exposição, pp. 39-40.)" (Cited in Leff, Development in Brazil, p. 54.)

<sup>7</sup>Furtado, Economic Development of Latin America, p. 173. Figures taken primarily from Survey of Current Business (November, 1966).

<sup>8</sup>This fact is mentioned in Galeano, Open Veins of Latin America, p. 237, and in dos Santos, "Foreign Investment," p. 449.

<sup>9</sup>Native industrialists, on the other hand, were often forced to purchase higher cost domestic-made equipment and with the use of highest-cost loans.

<sup>10</sup>In Inflation and Economic Development in Brazil, Kahil notes that Brazil's share in coffee exports on the world market continued to fall in the post-war period. Export shares in cotton and cocoa were also lost in the period according to Little and others, A Comparative Study, p. 245.

<sup>11</sup>Figures are from the following Yearbooks: 1956, Vol. 13; 1957, Vol. 14; 1958, Vol. 15; 1959, Vol. 16; 1960, Vol. 17; 1961-1962, Vol. 18; 1963-1967, AID Data Handbook, Revision 242, January, 1969.

<sup>12</sup>Baklanoff, "Brazilian Development and the International Economy," p. 203.

<sup>13</sup>Ibid., pp. 200-206.

<sup>14</sup>Vieira, "Industrial Development in Brazil," p. 208.

## CHAPTER NINE

### MARKET LIMITATIONS, INEQUALITY AND CONCENTRATION OF INCOME

With respect to both import substitutes and new goods introduced in the 1947-1964 period, it was found that after initial price reductions and consumers' response to price declines occurred, industrial growth was governed by income growth and income elasticity of demand. Since the bulk of the Brazilian population continued to receive low absolute incomes throughout the substitution process, the domestic market for many consumer goods grew slowly.<sup>1</sup>

Incomes remained low, in part due to a slow growth of employment opportunities in industry. Industrial labor force growth rates did not keep pace with growth of industrial output.<sup>2</sup> For example, the average annual industrial growth rate was 10.03% between 1950 and 1960,<sup>3</sup> while the average annual growth rate of industrial employment was only 2.6%.<sup>4</sup> Moreover, "...between 1959 and 1965 industrial value added jumped by some 30%. Over the same period of time, employment in the industrial labor force fell by almost two percent."<sup>5</sup> As indicated, the gap between output growth and employment growth became larger between 1959 and 1965; the 30% increase in productivity occurred primarily as a result of productivity gains via capital increments, at the same time that industrial employment was declining. In spite of a rising share in total income, the industrial sector gave rise to employment of equal shares of the labor force in 1949 and 1964.<sup>6</sup> In effect, the benefits of increasing income in the industrial sector were not widespread.

Capital-intensive production provided only a small increase in employment, and thus indirectly promoted low average incomes within the services sector which absorbed a large proportion of rural migrants. Since employment was not growing rapidly within the industrial sector, many people were forced to search out part-time or "occasional" work in a service capacity.<sup>7</sup> While the bias against exports inhibited greater expansion in agricultural output, ISI policies as a whole worked against absorbing rural migrants into urban employment, especially in the manufacturing sector. Rural migration was highest in the Fifties, the same time that employment growth rates in manufacturing were declining.<sup>8</sup>

Although Brazil has no urban employment statistics for the 1947-1964 period, it is generally recognized that "the shift in rural population had increased the demand for employment, which was not available, and thus the unemployment margin grew."<sup>9</sup> Official and unofficial figures on total unemployment ranged from 40% to 55% for the period.<sup>10</sup>

While some developing countries experienced stagnation or decline in agricultural output, partially as a result of shifting the internal terms of trade against agriculture, Brazil's per capita agricultural output increased on an average of 1.5% per annum between 1950-1955 and 1964-1966.<sup>11</sup> The Brazilian government encouraged expansion and the transfer of land from coffee to food production. Investment in tractors and fertilizers was subsidized, while imported inputs to agriculture enjoyed the highest priority and the most favorable exchange rates. However, the increase in agricultural output was very uneven. The main beneficiaries were large farmers, concentrated in already prosperous regions. The depressed

Northeast was left unrelieved, and increased agricultural output created little rural employment.<sup>12</sup> Thus, unemployment and income inequality were enhanced due to the bias against exports with simultaneous promotion of capital-intensive farming techniques.

Contributing to the failure of the domestic market for many consumer goods to expand was the difference between real wage increases and productivity gains. Between 1955 and 1965 the productivity of the labor force employed in the manufacturing sector rose at an annual rate of 5.2%, whereas the annual rate of increase in real wages was 1.3%.<sup>13</sup> In the same period of time, the machine tool, the electrical equipment and communications, and the auto industries increased their productivity by 128.5%, but real wages paid by them grew only 27.8%. These are the wages of all personnel--the wages of workers increased only 6.1% in real value during the ten year span.<sup>14</sup>

Thus, even in the sector with the highest rise in productivity, real wages increased less than average productivity. "It must be concluded therefore, that development was accompanied by a decline in the share of total income accruing to wage earners, particularly if...the earnings of the middle-income groups are excluded from this share."<sup>15</sup>

Total income accruing to wage-earners as a whole declined during the post-war era.<sup>16</sup> Wages and salaries of operatives as a percentage of value added in manufacturing in Brazil was 18% in 1963--less than half of many advanced countries'.<sup>17</sup> In effect, ISI policies favored profits over wages within the manufacturing sector.

Between 1949 and 1962 a transfer of income from wage-earners to profit-takers occurred. Comparing wage increases in particular manufacturing industries with productivity gains, the income transfer is clear.<sup>19</sup> Table 9.1 illustrates the decline in real wages within most industries during 1955 to 1959.

TABLE 9.1

Percentage Change in Wages in  
Guanabara and Brazil, by Industries  
April 1955-November 1959

Industries	Change in money wage				Change in real wage	
	(1955-9)		(1956-9)		(1955-9)	
	G.B. (1)	Brazil (2)	G.B. (3)	Brazil (4)	G.B. (5)	(6)
Textiles	176	173	147	146	1	-11
Tobacco	211	210	157	176	18	4
Beverages	188	187	158	172	6	-7
Elect.mat.etc.	165	166	110	131	-3	-14
Leather	189	156	188	143	6	-6
Transp. equip.	162	103	120	158	-4	-15
Rubber	126	96	116	117	-17	-27
Food	131	158	114	141	-15	-25
Publish.print.	162	156	99	115	-4	-15
Metal	169	169	152	146	-1	-13
Paper, etc.	145	197	140	165	-10	-21
Machines	159	147	140	129	-5	-16
Non-met.min.	167	167	143	150	-2	-14
Chemicals	171	238	148	143	---	-12
Clothing	119	163	123	130	-20	-29
Miscellaneous	157	157	130	127	-6	-17
Furniture	135	144	105	114	-14	-24
Wood	128	164	103	141	-16	-26

For columns (5) and (6) the Guanabara wage index was deflated by (5) cost of living index, (6) price of food index.

Source: Kahl, Inflation and Economic Development in Brazil, Table 11.6, p. 69.<sup>20</sup>

In 1950, agricultural real wages were much lower than industrial real wages, and the difference widened during the Fifties decade. The increasing difference is partially explained by the Brazilian government's wage policies during the period. Periodically, great increases in the minimum wage and/or in the pay of government employees were put into effect. As a result, the entire structure of industrial and urban wages was raised.<sup>21</sup> Wage legislation was not applied to agricultural workers during the period. The difference between urban and rural incomes remained high, and expectedly, rural-to-urban migration increased.

As pointed out in the introductory chapter, a rural-urban income gap as well as considerable per capita income differences among regions were apparent in post-war years. Appearing in Table 1.6 are 1960 per capita incomes in Brazil's rural and urban areas. The urban-rural income gap is readily apparent, both within the country's prosperous and poor states. ISI policies did not help to eliminate income gaps. Instead, the policies encouraged emergence of larger differences through the bias against exports, which affected the large masses of rural poor via inhibited agricultural export production, and the urban masses through inhibited export production of traditional manufactures. In addition, the bulk of public investment in basic industry and infrastructure was centered in the São Paulo and Guanabara regions, which encouraged concentration of industrial activity and income in those regions.

Another indicator of Brazil's income inequality during the post-war years is the changing pattern of demand for manufactured goods. The capacity to produce autos, refrigerators, electrical equipment and other

consumers durables expanded much faster than the textile, clothing, shoe and other traditional industries. The demand profile which emerged partially as a result of ISI policies favoring capital-intensive manufacturing, and industry over agriculture, was based on very unequal income distribution.<sup>22</sup> It appears that ISI policies geared to encouraging domestic production of consumer durables formerly imported--and of intermediate goods and capital goods needed for production of durables--provided also for greater income inequality, which in turn stimulated further growth of modern capital-intensive industry.

Income inequality was, in a sense, necessary for the growth of certain consumer goods sectors (and consequently, for certain intermediate and capital goods sectors), since these products were beyond the reach of most Brazilians in 1949, and continued to be so in 1964. Growth of soft consumer goods industries such as food processing, leather, textiles, tobacco and so forth was not encouraged. Rather than encouraging these labor-intensive industries, which had the greatest potential for export production, ISI policies foreclosed both export production and increased employment. Employment growth in these industries would have reinforced the growth of the same industries because low income wage-earners, at least in the initial stages, would be able to purchase lower-priced consumer goods. Export growth would have stimulated expansion of low-priced manufactures industries, and with this, employment growth.

Due to relatively high production costs promoted by ISI policies, Brazilian industry became dependent on a very small portion of the population as consumers of the new industries' products. High unit prices worked to forestall the evolution of mass markets. Since nearly one-third

of the national income accrued to the top five percent of the population,<sup>23</sup> and due to the prevalence of low absolute income levels throughout the income distribution, demand for products introduced in post-war years was small and not likely to expand. In fact, rising inflation managed to limit consumption of industry's products "even" among the highest-paid workers in the economy.

High initial and indivisible material capital expenditures characteristic of the basic industry substitution phase were complementary to precluding growth in investment. As pointed out in previous pages, several firms were operating at undercapacity, and thus, at high cost. Lack of an expanding domestic market--a result of low incomes and low labor absorption within industry and agriculture--foreclosed the very rationale for expansion, and with it, lower costs and prices.

The home market in the early Sixties has been described by several economists as structurally limited. Brazilian industry became dependent on the very top of the income distribution as consumers. In addition, the displacement of many small individual businesses by large-scale capital-intensive enterprises reduced the dominance of the self-employed in the higher income groups, and increased concentration at the top of the scale.<sup>24</sup>

A reasonable "diagnosis" for the state of Brazil's economic situation in the early Sixties might be that the home market became incapable of supporting industrial development. In other words, the rate of growth in production had become divorced from the growth rate of internal demand. Whereas in industrialized countries, business profits depend on

a large volume as profit per unit declines, in Brazil a continual rise in prices became a necessity for the very continuation of production in several industries.<sup>25</sup> It is to be noted that during the inflationary later 1950s and early 1960s, price rises were not the result of capacity constraints and excess demand. During 1955-1958 and 1962-1966, those industries growing most rapidly raised prices least.<sup>26</sup> Rather, rising prices with effects of income concentration, resulted from lack of sufficient market demand to initiate expansion of output.<sup>27</sup>

Many products were directed at the top five percent of the population. "Commodity markets for industrial products were not nearly so extensive as the size of the country alone would appear to indicate: in absolute terms, they were probably only of about the same as those of Mexico or Argentina during the 1950-1960 period."<sup>28</sup> It is possible that markets were even more limited than the above discussion indicates. It has been found that markets for most modern consumer durables and many "soft" consumer products were limited to an even smaller percentage of the population--estimated one to 1.5%.<sup>29</sup>

FOOTNOTES TO CHAPTER NINE

<sup>1</sup>"Policies tended to raise the relative cost of labor, relative to the private cost of capital, and probably caused growth in manufacturing to be much more capital-intensive, thus intensifying imbalance (of intersectoral structure of employment and labor productivity)..." (Cited in Bergsman, Industrialization and Trade Policies, p. 173.)

<sup>2</sup>Fishlow, "Origins and Consequences of Import Substitution," p. 350.

<sup>3</sup>Rosenbaum, "Introduction: An Overview," in Contemporary Brazil, p. 15.

<sup>4</sup>Little and others, A Comparative Study, p. 84.

<sup>5</sup>Hughes, "Factor Prices, Capital Intensity and Technological Adaptation," in Contemporary Brazil, p. 126.

<sup>6</sup>Furtado, Economic Development in Latin America, p. 151.

<sup>7</sup>Supra, pp. 12-20 provides examples of regional, sectoral and personal income disparity contributing to social unrest and market limitations.

<sup>8</sup>See Little and others, A Comparative Study, pp. 88-92 for discussion of Brazil's shift away from labor-intensive, traditional industry intensifying unemployment during the 1949-1963 period.

<sup>9</sup>M. Diegues Júnior, "Urban Employment in Brazil," International Labor Review (June, 1966), 655, cited in Little and others, A Comparative Study, p. 82.

<sup>10</sup>See Ianni, Crisis in Brazil, Table 12, "Population According to Occupation (10 years and older)," p. 72 for exemplification of increased unemployment and underemployment in 1940, 1950 and 1960. The table shows an increase in the occupational categories of "Inactive," "Others," and "Service Activities," throughout the two decade span of time, particularly marked between 1950 and 1960. Figures are taken from Serviço Nacional de Recenseamento, Cf. Instituto Brasileiro de Geografia e Estatístico, Anuario Estatístico do Brazil (Rio de Janeiro, IGBE, 1965), p. 35.

<sup>11</sup>Little and others, A Comparative Study, p. 101.

<sup>12</sup>Ibid., p. 108.

<sup>13</sup>Furtado, Economic Development of Latin America, p. 148.

<sup>14</sup>Galeano, "The De-Nationalization of Brazilian Industry," p. 26. Figures taken from Ministry of Planning and General Coordination, A Industrializacao Brasileira: Diagnostico e Perspectivos, Rio de Janeiro, 1969.

<sup>15</sup>Furtado, Economic Development in Latin America, p. 148.

<sup>16</sup>Ibid.

<sup>17</sup>Little and others, A Comparative Study, p. 45

<sup>18</sup>Bergsman, Industrialization and Trade Policies, p. 58; Furtado, Economic Development of Latin America, Chapter 35; Baer, Industrialization and Economic Development in Brazil; cited in Pone, in Latin American Prospects, p. 186.

<sup>19</sup>Furtado, Economic Development of Latin America, p. 148.

<sup>20</sup>Figures cited in CNE, Produção (various years).

<sup>21</sup>Little and others, A Comparative Study, p. 82.

<sup>22</sup>Baer, Industrialization and Economic Development in Brazil, pp. 108-109; Little and others, A Comparative Study, pp. 110-111; and Pone, in Latin American Prospects, p. 186.

<sup>23</sup>Supra, p. 19.

<sup>24</sup>United Nations, Income Distribution in Latin America, p. 33.

<sup>25</sup>"...in countries with a large labor surplus...the composition of demand assumes particular significance, since the market for manufactured consumer goods consists of two distinct sectors making little contact with one another...Since technological progress tends to increase the capital coefficient per employee and per unit of additional output, the structural situation outlined above is even further aggravated. The slower absorption of manpower contributes to the growing structural labor surplus. Thus the social distribution of benefits deriving from technological progress will be hampered by this very progress. For example...economies of scale, one of the most significant indications of the assimilations of technological progress, cannot be realized to full advantage." (Cited in Furtado, Economic Development of Latin America, pp. 147-148.)

<sup>27</sup>Reinforcing great concentration of income was the relatively small industrial labor force which comprised less than 10% of the whole, and the relatively large portion of the labor force in the services sector--close to 50%. Lesser inequality in the upper half of the income distribution should have provided for large consumer markets as it does in industrialized countries. Greater income equality might have offered mass markets for some products. Commercial markets among the upper half were, however, limited by the low absolute incomes received by most of the people in the upper half. "If markets for modern-type products are considered to depend essentially on those with per capita annual income of \$500 or more, in the early and mid-Sixties, this would include only about 7.5% of the population of Brazil." (Cited in United Nations, Income Distribution in Latin America, p. 76.)

<sup>28</sup>Ibid., p. 75.

<sup>29</sup>Ibid.

## CHAPTER TEN

### SUMMARY AND CONCLUSION

ISI policy of the post-war period promoted capital-intensive industrialization which contributed to low levels of employment growth, import constraints, and high production costs via overcapacity in many industries. In addition, the protectionist tariffs allowed inefficiency in several industrial categories, leading to unnecessarily high unit costs. By enforcing a virtually one-sided policy towards development--import substitution industrialization--possibilities for self-sustained growth were prevented. Without simultaneous expansion of export earnings, the policy measures of 1947-1964 worked toward creating greater absolute import needs, which climaxed in balance of payments deficits.

Economic policy of the period was strongly favorable to industrial growth and expansion, due in part, to the government's particular approach to the balance of payments issue. The solution to the foreign exchange problem was thought to be either export promotion or import substitution, and export promotion was rejected. Apparently, in the post-war period, the government did not perceive that export expansion and import substitution could be complementary rather than competitive courses.

According to Leff and Kahil there were no good technical reasons why such a dichotomous approach had to be applied.<sup>1</sup> In fact, analysis suggests that under Brasil's conditions of elastic factor supply, output of primary product exports could have been expanded simultaneously with high rates of industrial development and import substitution.<sup>2</sup> Brazil's

capacity for export expansion seemed reasonably well-established, considering that in spite of the export price disincentive, over-all absolute quantum more than doubled over the post-war period. That exports were not choked off completely under the period's export policy is an indication of Brazil's strong competitive position in these products.

"Indeed, Brazilian producers were sufficiently competitive so that even with the overvalued export exchange rate, the government had to resort to quantitative controls in order to restrict exports of these products (mainly primary goods, although quantitative controls were also enforced with respect to manufactured goods on occasion)..."<sup>3</sup>

A model in which, especially with high tariffs, industrial import substitution goes together with expanding primary-product exports--with the latter generating demand and imported inputs for the former--is certainly conceivable. The rapid industrial development of São Paulo, stimulated by the coffee boom at the turn of the century is indeed a good example.<sup>4</sup>

Bergsman and Leff maintain that continuing exchange rate overvaluation applied to capital imports was not needed to foster industrialization.<sup>5,6</sup> Indeed, Bergsman states that Brazil would have sacrificed little, if any, of her industrialization without the fixed overvalued exchange rate up to 1953, and subsequent special overvalued exchange rates for capital imports and the overvalued export exchange rate.<sup>7</sup>

Neglect of the export sector--which meant neglect of agricultural employment and income growth, or at least maintenance of low levels in both areas--indirectly promoted increasing concentration of income and economic activity within the country's already prosperous regions. This concentration eventually had ramifications of growing social unrest, and market limitations which impeded further economic growth.<sup>8</sup>

The Brazilian government's promotion of modern industry was "excessive" then, mainly because of the simultaneous neglect of the agricultural export sector and traditional manufacturing industries. Subsidized imports of capital goods were "excessive" considering the simultaneous increase of rural migration, and with it growing unemployment and underemployment. It would follow that less subsidization of capital imports would have mitigated the bias against labor inputs, resulting in high levels of employment in manufacturing.

Policy-makers' denial of export promotion also led to increasing dependence on foreign capital to alleviate or prevent import constraints. Subsidization of foreign firms' capital imports added to the bias against labor inputs, while encouraging greater foreign participation in the industrial sector.<sup>9</sup> By encouraging massive foreign participation in the country's most dynamic or high growth industries, post-war ISI policy increased the Brazilian economy's susceptibility to decisions made outside of the country which were inimical to the country's economic development. An example mentioned previously was the decline in total investment and output levels of the 1962-1965 period, which partially resulted from withdrawal of foreign investment.

Exports would probably have increased more than they did increase if there had been no bias against exports. Increased exports would have reduced balance of payments problems, and might have alleviated some of the bias against labor inputs. Expansion of export earnings might also have eliminated to some degree, the need for increasing foreign capital inflows. A smaller portion of capital-intensive production combined with higher incomes in the agricultural areas, would conceivably have

mitigated social problems arising from massive rural migration and urban unemployment.

In retrospect, post-war ISI combined with neglect of the agricultural sector, may have reduced the ability of the economy to meet the needs of the bulk of the Brazilian people and to achieve self-sustaining growth and development. ISI policy, especially during the 1947-1964 period, militated against integration of large numbers of people into the economy. This, in turn, limited economic growth and development by shrinking the market for products of several industries initiated in the post-war period.<sup>10</sup>

Due to effects of ISI policy summarized above, several economists have argued that elements of those policies were inconsistent with each other. The "inconsistency," however, is due to many things. First, policy-makers were inexperienced with economic development planning. In fact, scientific analyses and projections of Brazil's economic development potentials and priorities were often regarded with suspicion by politicians and government employees at both federal and local levels. Brazil's "piece-meal approach" towards development was in part, the result of the lack of well-trained personnel to plan a set of mutually reinforcing development policies with access to political office or support to implement such plans.<sup>11</sup>

Second, the diversity of conflicting political and economic priorities throughout Brazil's industrialization process often inhibited rational decision-making. Examples of political interest groups' diversity are numerous. One such case is Brazil's powerful "coffee gentry's" opposition to subsidization of the industrial sector, and demands for equally

valuable concessions from the government. The government responded with a coffee valorization policy, preferred exchange rates and purchase of coffee stocks to maintain income in the coffee sector despite world market price fluctuations.<sup>12</sup> Another significant interest group which came into being during the post-war era was a politically-conscious urban working class, whose demands for higher wages were not well-received by native industrialists. Nonetheless, the government was forced to concede privileges to both groups on different occasions in order to prevent work stoppages, or in the interest of maintaining political support among the industrialists. Another example of conflicting interests is civil servants' demands for higher wages and other benefits--such as the military's demand for greater expenditures on military hardware. Such demands were often in direct conflict with attempts to curtail inflation and/or limit budget deficits.

Third, administrative inefficiency at all levels inhibited conscientious and well-informed management in several areas of governmental responsibility. Lack of sufficient personnel with appropriate training in both supervisory and "worker" capacities, presented formidable obstacles toward instituting complex economic programs to be implemented on a nation-wide basis.

Given the "constraints" outlined above, so-called "inconsistencies" of Brazilian economic policy are not surprising. Whether or not these inconsistencies are "forgivable," depends upon the professional economist's system of priorities. If, for instance, high levels of employment growth and decreasing income inequality are considered to be leading economic priorities, the Brazilian government's ISI policies might be "unforgivable"--yet, at the same time, understandable.

# FOOTNOTES TO CHAPTER TEN

<sup>1</sup>Nathaniel H. Leff, Development in Brazil, pp. 84-88, and Kahil, Inflation and Economic Development in Brazil, pp. 243-244.

<sup>2</sup>Leff, "Export Stagnation and Autarkic Development in Brazil, 1947-1962," Section IV, Quarterly Journal of Economics (May 1967) cited in Leff, Development in Brazil, p. 87.

<sup>3</sup>Leff, Development in Brazil, p. 83. See also Little and others, A Comparative Study, pp. 237-242 for discussion of Brazil's export potential of agricultural goods.

<sup>4</sup>Leff, "Note on Brazilian Economic Development before 1939," (Mimeo, 1967), cited in Leff, Development in Brazil, p. 87.

<sup>5</sup>Bergsman, Industrialization and Trade Policies, pp. 70-75.

<sup>6</sup>Leff, Development in Brazil, 80-84.

<sup>7</sup>Bergsman, Industrialization and Trade Policies, p. 73.

<sup>8</sup>Explicit and implicit export policy inhibited expansion of the export sector, and with it greater employment and incomes in rural areas. This conclusion appears in Fishlow, "Origins and Consequences of Import Substitution," pp. 352-355. Carlos F. Diaz-Alejandro reaches a similar conclusion in his analysis of post-war Argentine economic growth--industrial development would also have been more rapid if rates of agricultural exportation had been higher. See his "An Interpretation of Argentine Economic Growth since 1930: Part II," Journal of Development Studies, III, 174 (January 1967). Hla Myint has also emphasized the complementarity between export expansion and import substitution. See "The Inward and Outward Looking Countries of Southeast Asian," The Malayan Economic Review, (April 1967), cited in Leff, Development in Brazil, p. 87.

<sup>9</sup>See Ronald Muller, "The MNC and the Exercise of Power: Latin America," in The New Sovereigns--Multinational Corporations as World Powers, ed. by Abdul A. Said and Luiz R. Simmons (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975), pp. 60-67, for discussion of MNCs' employment-displacing technology; displacement or absorption of native production facilities as opposed to productive capacity increments; and, negative effects on host country's balance of payments.

<sup>10</sup>It is to be noted that the bulk of state investment was directed towards installment of physical productive capacity and importation of sophisticated technology, thereby reinforcing the capital-intensive, market-limiting features of other ISI policies.

<sup>11</sup>Leff, Development in Brazil, pp. 84-88.

<sup>12</sup>See Leff, ibid., Chapter 3, "Protection and Coffee Policy," pp. 9-32.

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BRAZILIAN INDUSTRIALIZATION POLICY (1914-1964):  
DISCUSSION AND ANALYSIS OF CONSEQUENCES

by

BARBARA ANN KOHL

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AN ABSTRACT OF A MASTER'S REPORT

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## ABSTRACT

Brazil's import substitution industrialization (ISI) was initiated in the World War I period. Since 1914, Brazilian industry has produced a substantial amount and variety of goods that had previously been imported. Between 1919 and 1947 ISI occurred primarily in response to world market conditions (such as declining coffee prices) and difficulties in obtaining needed imports from traditional suppliers during war-time and economic depression.

Subsequent to World War II (1947-1964), the Brazilian government, like several other developing countries, purposely devised and implemented policies to further ISI. Several measures were used such as maintaining separate fixed exchange rates for exports and imports, import quotas, import tariffs, import licenses, export quotas, and export licenses. The period is generally referred to as Brazil's "protectionist era."

ISI policy of the post-World War II period is thought by many to have had substantial effect on both the type and amount of industrial activity which occurred. ISI policy was markedly successful in encouraging growth and diversification of the industrial sector, yet ISI had certain side effects which created the environment for economic "crisis" of the early Sixties, and intensified certain endemic social and income disparities within the country.

Protectionist policies generated a virtual bias against exports which facilitated stagnation, both of agricultural exports and of traditional manufactured exports. The "export bias" had the negative effect of neglecting large numbers of people dependent on agricultural incomes and those connected to Brazil's traditional, labor-intensive industries. Export bias

also helped create the serious balance of payments deficits that emerged in the late Fifties and early Sixties.

Favored were import substituting industries which were more capital-intensive than traditional industries. Policies such as import tax exemptions, exchange rate concessions, and special privileges for easy import of equipment for import substituting foreign companies, created a factor price bias against labor at a time when Brazil's agricultural surplus labor force was increasing.

Due to low labor absorption in the industrial sector and declining employment in the agricultural sector (encouraged by the bias against exports), the domestic market for a large portion of Brazil's new industries was quite limited. Combined with the capital-intensive nature of ISI, limited market possibilities reinforced overcapacity in the industrial sector. Lacking an expanding domestic market, industry had little stimulus to produce at full capacity in order to realize benefits of economies of scale--low unit costs. Capital-intensive production and ensuing high costs facilitated the growth of monopoly market structures and subsequent high prices which added yet another obstacle to market expansion.

In summary, the ISI policy of the 1947-1964 period generated a high degree of industrial activity, yet militated against domestic market expansion via its export and labor-intensive biases. The export bias militated against significantly increased agricultural production both for the home market and export market, thereby limiting employment possibilities and higher incomes for the rural masses. The export bias, combined with capital-intensive production in the industrial sector, perpetuated income inequality and low absolute income for the urban masses. Income inequality not only

had implications for the life standard and opportunities for the majority of the population, but also limited further investment in several industries, as markets failed to expand.