BRAZILIAN ECONOMIC DEVELOPMENT SINCE 1956: A STUDY ON POLICIES REFLECTING THE STAGES OF GROWTH

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I. INTRODUCTION

s with other Latin American countries, Brazil has long depended heavily on exploitation of her rich underground resources and abundant soil. But with inadequate capital accumulation and a low level of technology, the country lacked important conditions for economic development. Land itself, then, has been the most important factor of production in Brazil, and the problem for Brazil has been providing export commodities whose essential production factor is land. This has made agriculture the principal export industry for Brazil ever since the colonial period. First sugar, then cotton, and later coffee were the primary export items. Coffee made up 74 per cent of the country's total export in 1952.

Agricultural production, however, was carried on without maintaining land fertility. When continuous cultivation of the same lot impoverished the land, new sites were found and cultivated, and exhausted land discarded. As a result, when declining land productivity brought about lower harvests, or when emergence of new foreign competitors caused falling profits, new products with higher demand abroad took the place of older items. Thus, a characteristic feature of Brazilian agriculture was that business cycles accurately reflected demand and supply relations abroad. This economic instability, aggravated by excessive speculation, held back capital accumulation [3, p. 82].

With no need to enhance productivity on plantations reliant on fertile land and cheap labor, neither improvement in agricultural techniques nor investments to improve soil have been forthcoming. Coffee production was begun in the State of Rio de Janeiro at the end of the eighteenth century. The center of production subsequently shifted to the State of Espírito Santo and the southern part of Minas Gerais State, until it reached the State of São Paulo at the end of the nineteenth century and Parana State around 1950. This movement is the result of characteristic Brazilian agricultural methods. The impossibility of making once impoverished land fertile again without agricultural know-how [17] resulted in a search for new land until coffee cultivation was made in the State of Paraná, where frost can cause crop damage.

The various production centers were not mutually connected, but were closely

¹ The rise and fall of coffee prices was particularly violent: the price of Santos No. 4 in New York went up to 24.78 cents per pound in 1919 from 9.57 cents in 1915, then fell to 10 cents in 1921.

related to their respective foreign markets. True, development of one region sometimes induced related industries in others. For instance, sugar economy prosperity in the Northeast has helped livestock raising in the interior [9, pp. 79–80]. The development of a mining economy in the Southeast has aided growth of livestock raising for transportation and meat production in the South [9, p. 93]. However, in spite of these developments the repercussive effect has not been significant for the entire national economy. Economic development of one region has been largely confined to that particular region. Furthermore, when one economic center waned, an entirely new center was born in another place carrying on economic activities totally unrelated to past development.

Only toward the end of the last century did the São Paulo area experience new development centered on coffee production. Isolated regional economic activity then began to give way to the creation of a more integrated national economy. With the industrial development of São Paulo City, integration of the Brazilian economy was conceived around an economic core in the Southeast. The Northeast, suffering from poor sugar cane harvests, looked to the rising Southeast for a sugar market. The Amazon region also sought integration with the Southeast as a way out of stagnation. But this late integration of the national economy resulted in great regional discrepancies. The economies of the Northeast, North, and Central West are strikingly backward in comparison with the Southeast.

II. POLICIES TO PROMOTE INDUSTRIALIZATION

The Brazilian monocultural economy has suffered frequently and violently in the waves of the world business cycles. Price declines in primary commodities have had adverse influence on capital formation by deteriorating terms of trade and decreasing foreign exchange earnings, which in turn led to stagnant economic growth.² In the world depression of the 1930s, Brazil set out on a path of industrialization supported by the strong nationalistic policies of President Vargas.

A. Promotion of Import Substituting Industries

Toward the end of the nineteenth century some manufacturing had started in textiles, food processing, and sundry goods in and around São Paulo, and somewhat later production of farming tools was begun. However, during the depression-ridden 1930s manufacturing was greatly expanded by domestic production of a number of industrial goods previously imported. The depression dealt a heavy blow to the coffee economy of Brazil as the drop in coffee prices caused export earnings to fall rapidly, capital flight, and a suspension of convertibility, as well as a falling exchange rate of the cruzeiro. The depreciation of the cruzeiro, in turn, raised import prices and made industrial goods import go down, creating favorable opportunities for domestic manufacturing industries. As the world coffee price remained low throughout the depression period, coffee capital went into the industrial sector where relatively higher profit rates could be secured, contributing to develop-

² The unfavorable conditions for periphery countries specializing in export of primary goods were pointed out by Raúl Prebisch [11] [12] [13].

ment not only of traditional light industries like food processing, textiles, clothing, and shoe making, but also of new industries such as machinery, chemicals, and pharmaceuticals. Between 1929 and 1937 domestic production of industrial products increased by more than 50 per cent, which substituted for hitherto imports and lowered the degree of import dependency [9, p. 224].

World War II further promoted development of industries catering to domestic demand. Until then Europe was the main supplier of industrial goods to Brazil, but with Europe concentrating on war production, and a shortage in ocean transportation, Brazil's imports of industrial goods dropped sharply and shortages of consumer goods became acute. Even when export prices rose and terms of trade improved, import volume did not grow concomitantly with exports. Consequently, the domestic price index rose by 86 per cent during 1940–44, compared to 31 per cent during 1929–39 [9, p. 236]. With these stimuli, Brazil's import substitute industries grew rapidly during World War II. Steel and cement production increased by 58.3 per cent between 1925–29 and 1945–49 [16, p. 197]. In the international market, Brazilian cotton products were exported not only to neighboring countries but also to Africa and Asia [3, p. 96].

After World War II, imports from Europe were available again and import demand grew rapidly. The government put import controls on finished consumer goods and promoted imports of raw materials, semi-finished goods, fuels, and capital goods. Coupled with the mere 7 per cent rise in import prices of capital goods between 1945 and 1950, this policy succeeded in promoting investment in the domestic production of consumer goods [9, p. 243]. During the first postwar decade the international market for Brazil's principal export item, coffee, remained prosperous. Coffee prices reached a record high in 1954, double the 1948 figure. This helped both the growth and industrialization of the Brazilian economy. The average annual growth of gross domestic product per capita was 3.8 per cent during the 1944–55 period.

In the mid-1950s export volume of coffee started to decline. When at the end of 1954 the coffee price also declined, foreign currency earnings deteriorated significantly. In 1956 President Kubitschek announced his five-year plan for economic development and initiated large-scale development programs for key industries, transportation, energy, and other services under the slogan of "fifty years of progress in five." The economic growth rate each year continued 5.6–10.3 per cent between 1957 and 1961. Per capita GDP was 2.5–6.7 per cent growth for the same years. Expansion of industrial production was particularly striking, and considerable progress was also achieved in the infrastructure such as in roads and electric power supply.

As industrialization progressed, the structure of the industrial sector also changed. In 1949 such traditional industries as food processing, beverages, tobacco, leather wares, textiles, lumbering, furniture making, and printing and publishing occupied 70 per cent of total industrial production. Production of food and beverages, combined with textile goods, amounted to more than 50 per cent. By 1958 the value of all traditional industries and the combined figures for food, beverages, and textiles dropped to 52 per cent and 36 per cent respectively, 49 per cent and

34 per cent respectively, by 1961. Such industries as metal processing, primary metals, electrical appliances, transportation equipment, and chemicals rapidly grew in importance, from 22 per cent in 1949 to 38 per cent in 1958, and to 41 per cent in 1961. The combined shares of the processing of nonmetallic minerals, paper, cardboard, and rubber also increased, from 8 per cent in 1949 to 10 per cent in 1958–61 [18, p. 39].

Industries with low rates of growth during the 1950s had been established at relatively earlier periods and most met domestic needs adequately. On the contrary, industries with high growth rates during the 1950s had been started at later periods, and the country had depended heavily on imports for the supply of products until 1949, with little domestic development. In 1949 high rates of import dependency, i.e., the ratio of imports to total supply (imports + domestic production), were shown in metal processing, transportation equipment, and electro-communications industries. Of these industries, the import dependency, as well as the share in the total industrial goods imports, for metal processing and electro-communications declined toward 1958, but the subsequent rise in domestic demand exceeded domestic supply and again raised import dependency in 1961 (see Table I). Import

TABLE I
IMPORT DEPENDENCY OF INDUSTRIAL GOODS AND THEIR SHARE
IN THE TOTAL IMPORTS

| | Percentage of Imports to Total Supply (Imports+Domestic Production) | | | Perce | Percentage in Total Imports | | |
|-----------------------------------|--|------|------|-------|-----------------------------|-------|--|
| | 1949 | 1958 | 1961 | 1949 | 1958 | 1961 | |
| Metals | 22.3 | 11.7 | 11.7 | 13.5 | 12.6 | 16.3 | |
| Metal processing | 63.8 | 41.5 | 46.3 | 17.5 | 15.4 | 19.4 | |
| Electro-communications facilities | 44.8 | 13.3 | 16.9 | 7.0 | 5.9 | 7.9 | |
| Transportation equipment | 56.6 | 30.5 | 18.6 | 18.6 | 25.3 | 17.2 | |
| Chemicals & medicines | 29.3 | 20.0 | 17.4 | 22.0 | 28.8 | 25.3 | |
| Nonmetallic minerals processing | 10.1 | 5.1 | 4.4 | 3.1 | 2.2 | 1.9 | |
| Paper & cardboard | 9.6 | 5.3 | 7.2 | 1.3 | 1.4 | 2.2 | |
| Rubber | 1.3 | 6.5 | 14.7 | 0.1 | 1.2 | 3.2 | |
| Lumber goods | 1.0 | 1.0 | 0.7 | 0.2 | 0.2 | 0.2 | |
| Textile | 6.2 | 0.6 | 0.6 | 7.6 | 0.7 | 0.8 | |
| Clothes, shoes, etc. | 0.2 | _ | | | | _ | |
| Foodstuff | 3.8 | 2.5 | 2.2 | 7.8 | 4.9 | 4.3 | |
| Beverages | 2.4 | 2.6 | 2.6 | 0.5 | 0.6 | 0.6 | |
| Tobacco | 0.4 | — \ | | _ | _ | - | |
| Printing & publishing | 2.2 | 3.0 | 1.0 | 0.4 | 0.6 | 0.6 | |
| Furniture | 0.3 | t | 1.0 | | _ | _ | |
| Leather | 3.0 | 0.7 | | 0.3 | 0.1 | | |
| Total | 15.6 | 11.3 | 9.7 | 100.0 | 100.0 | 100.0 | |

Source: [18].

substitution advanced rapidly in transportation equipment after 1958. Import substitution in the 1950s progressed mainly in the field of consumer durables and their imports decreased greatly during the 1948–61 period.

Meanwhile, the Brazilian economy underwent basic structural changes. There was an impressive rapid rise in importance of the industrial sector during the 1950s. The leading role in economic development gradually changed from agriculture, in particular export-oriented agriculture, to industries catering to domestic demand (see Table II). Banco Nacional do Desenvolvimento Econômico also points out

TABLE II
SHARE OF VARIOUS SECTORS IN THE GROSS DOMESTIC PRODUCT

| | 1950 | 1955 | 1960 | 1965 | 1969 | 1970 |
|---|-------|-------|-------|-------|-------------------|-------|
| Agriculture, farming, forestry & fishery | 31.3 | 31.0 | 28.4 | 23.5 | 19.9 | 19.4 |
| Mining | 0.3 | 0.3 | 0.5 | 0.5 | 0.7 | 0.6 |
| Manufacturing | 16.5 | 18.9 | 23.4 | 22.0 | 24.4 | 24.7 |
| Construction | 1.1 | 1.1 | 1.2 | 1.0 | 1.1 | 1.2 |
| Electric power, gas & water | 0.7 | 0.6 | 0.8 | 2.3 | 2.5 | 2.6 |
| Transportation & communications | 6.4 | 7.0 | 7.6 | 7.1 | 7.6 | 8.6 |
| Trade and finance | 13.8 | 14.8 | 15.5 | 20.0 | 20.2 | |
| Housing | * | 4.3 | 3.9 | * | * [| 43.6 |
| Government | 10.0 | 8.7 | 7.4 | 7.7 | 7.7 | 43.0 |
| Other services | 19.9 | 13.3 | 11.3 | 15.9 | 15.9 ⁾ | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Sources: United Nations, Economic Survey of Latin America, 1964, 1965, 1969, 1970 editions.

that the key contribution to the expanded real domestic production in the latter half of the 1950s was the growth of the industrial sector, and both prosperity and expansion of this sector were essential for modernization of the agricultural sector.

During the 1950s production of capital goods took over the hitherto important centralizing upon role of light industries consumer goods production. The energy sector also made great strides. These changes were accompanied by corresponding changes in degrees of dependency on exports: the ratio of exports to gross domestic product dropped from on average of about 15 per cent in 1939–43, to 8.9 per cent in 1955, and still further to 7.3 per cent in 1959. Falling rates of exports in GDP meant less dependency of the Brazilian economy on its primary products and their export and, ultimately, a smaller degree of influence on the economy by the international market. Coffee production weighed less heavily, and the Brazilian economy acquired relative independence.

It is common knowledge that development policy aimed at promoting import substituting industries was inspired to a great extent by the work of Raúl Prebisch, then Secretary General of the U.N. Economic Commission for Latin America. He pointed out, on one hand, the existence of external bottlenecks peculiar to the peripheral countries in relation to the centers, that is, countries specialized to the export of manufactured goods [11] [12] [13, C, pp. 79–123], and, on the other,

^{*} Included in "other services."

internal bottleneck as characteristic features of underdeveloped countries [13, B, pp. 25–77], and thus showed reasons why discrepancies in growth rates between underdeveloped and advanced industrialized nations grow. He placed particular emphasis on analyzing external factors born out of specialization in primary industries, claiming that growth rate discrepancies cannot be closed unless heavy dependency on primary industry is alleviated. In his thesis he said vigorous industrialization was essential for development. His conclusion was that the only way to rectify the aggravating influence on the rate of economic growth by the discrepancy between income elasticity of demand for primary goods and that for industrial goods was to promote import substituting industries [12, p. 253].

B. Development of Export Industries

Since peripheral countries had depended on the import from industrial nations concerning the supply of industrial products, Prebisch's recommendation of industrializing developing economies led to a policy of domestic production of hitherto imported goods. Since developing countries have neither skilled labor for manufacturing nor well-established external economies, production costs inevitably become higher than in competing economies. Herein lies the need for protective policy: Prebisch advocated tariff protection in promoting import substituting industries [12, p. 257]. But his advocacy of protection through tariffs did not mean abandonment of export promotion efforts. He was deeply troubled by the fact that industrialization in Latin American countries lacked healthy features owing to excessive protection, and believed that lowering of tariffs to rational levels would require positive efforts for export promotion [13, pp. 86-87]. If export promotion achieved its aim of greater industrial export, then there should be no need to push for import substitution in areas where domestic production would be very costly [13, pp. 91-92].

It follows that promotion of import substituting industries should also necessitate export promotion if development is to proceed under rational conditions. But Latin American countries have not given sufficient effort to lower production costs, partly because of inadequate development of manufacturing industries to fully meet domestic demand and partly because of easy application of protectionist policies. High tariffs and other policies to discourage import limit competitiveness and allow the co-existence of high-productivity factories and low-productivity factories, each with their own interests securely guaranteed [13, p. 57]. In order to raise industrial productivity and improve quality, the principle of free competition is essential [14, p. 110]. It is only when internal free competition can lower production costs that exports will grow. In other words, promotion of import substitution industries will not work when carried out alone and independently, but only when the final objective of expanded exports is firmly in mind. The ECLA in more recent years began to advocate change in export structure through expanded industrial export. This would be achieved by Latin American trade policy [19, p. 35].

Manufacturing industry in Brazil remained on the level of substituting imports of industrial goods during the first half of the 1960s. But during the latter half of

(%)

the decade their growth was hurried (see Table III) and certain industrial goods gained competitiveness for export markets.

TABLE III

GROWTH RATE OF BRAZIL'S INDUSTRIAL SECTOR AND OF THE

GROSS DOMESTIC PRODUCT

| | Industrial Sector | Gross Domestic Product | |
|---------|-------------------|---------------------------|--|
| 1960-65 | 3.7 | 4.5 | |
| 1965-68 | 9.2 | 6.1 | |
| 1969* | 10.8 | 9.0 | |
| 1970* | 10.2 | 9.5 | |
| 1971* | 11.3 | 11.3 | |
| 1972* | 13.9 | 10.4 | |

Sources: United Nations, Economic Survey of Latin America, 1969, 1970 editiols; Fundação Getúlio Vargas, Atualização Parcial do Sistema de Contas Nacionais 1971/1972 (Rio de Janeiro, 1973).

The importance of coffee in Brazilian export has fallen from more than 50 per cent of total exports in the 1950s to 38.7 per cent in the 1966–70 average, to 26.8 per cent in 1971 and to 24.8 per cent in 1972 (Table IV). Export of manufactured

TABLE IV
BRAZIL'S EXPORT COMPOSITION

| | 1966-1970 | Average | 1971 | | 1972 | |
|--|------------|---------|------------|-------|------------|-------|
| •: | \$ Million | % | \$ Million | % | \$ Million | % |
| Total (A+B+C) | 2,065.4 | 100.0 | 2,881.6 | 100.0 | 3,987.0 | 100.0 |
| A. Coffee | 826.3 | 40.0 | 882.2 | 28.5 | 1,057.1 | 26.5 |
| Beans | 799.1 | 38.7 | 772.5 | 26.8 | 989.2 | 24.8 |
| Instant | 27.2 | 1.3 | 49.7 | 1.7 | 67.9 | 1.7 |
| B. Other products | 1,225.8 | 59.4 | 1,988.1 | 69.0 | 2,895.2 | 72.6 |
| 1. Primary products | 817.8 | 39.6 | 1,215.9 | 42.2 | 1,737.7 | 43.6 |
| Sugar | 100.8 | 4.9 | 146.6 | 5.1 | 421.5 | 10.6 |
| Raw cotton | 136.6 | 6.6 | 137.1 | 4.8 | 190.8 | 4.8 |
| Cocoa beans | 67.8 | 3.3 | 61.7 | 2.1 | 60.5 | 1.5 |
| Iron ore | 132.9 | 6.4 | 237.3 | 8.2 | 230.0 | 5.8 |
| Other primary products | 357.2 | 17.3 | 595.5 | 10.7 | 806.5 | 20.2 |
| Soya (grain) | 21.0 | 1.0 | 24.3 | 0.8 | 127.8 | 3.2 |
| Soyabean, cake, and bran | 22.1 | 1.1 | 81.5 | 2.8 | 150.0 | 3.8 |
| Beef, chilled or frozen | 30.2 | 1.5 | 98.7 | 3.4 | 153.5 | 3.8 |
| 2. Manufactured goods | 408.0 | 19.8 | 772.2 | 26.8 | 1,157.5 | 29.0 |
| Semi-processed goods | 185.1 | 9.0 | 240.6 | 8.4 | 315.7 | 7.9 |
| Lumber | 68.8 | 3.3 | 82.1 | 2.8 | 72.9 | 1.8 |
| Manufactured goods (except instant coffee) | 222.9 | 10.8 | 531.0 | 18.4 | 841.8 | 21.1 |
| Footwear | 2.2 | 0.1 | 29.3 | 1.0 | 54.8 | 1.4 |
| Boilers, machines, and mechanical apparatu and instruments | | 0.8 | 38.8 | 1.3 | 64.3 | 1.6 |
| C. Special transaction | 13.3 | 0.6 | 71.3 | 2.5 | 34.7 | ` 0.9 |

Source: Banco Central do Brasil, Relatório 1972 (Brasília, 1973).

^{*} Preliminary estimates.

goods (except instant coffee) has increased from 10.8 per cent of total exports, or 222.9 million dollars on the annual average in 1966–70, to 18.4 per cent in 1971 and 21.1 per cent in 1972, when volume reached 841.8 million dollars, or over four times the 1966–70 average. These industrial exports consist of office equipment, transportation equipment, steel products, electric appliances, lumber board, cotton cloth, footwear, and fruit juice. However, we do not count instant coffee and semi-processed goods as manufactured goods. Therefore, if we include instant coffee and semi-processed goods, the total of 1972 manufactured goods exceeds the export of coffee beans (989.2 million dollars). The image of Brazil as a coffee exporter has been watered down these days, and her position as an industrial exporter has been gradually consolidated.

Of industrial exports, 48 per cent in 1971 were sent to countries in the Latin American Free Trade Area (see Table V). This is a clear indication that Brazil's

TABLE V
IMPORTERS OF BRAZILIAN INDUSTRIAL GOODS
(In million dollars)

| | , | |
|-----------|-------------------------|---|
| Total (A) | LAFTA Countries (B) | B/A (%) |
| 130.0 | 70.3 | 54.1 |
| 181.6 | 103.1 | 56.8 |
| 306.9 | 145.8 | 47.5 |
| 424.0 | 203.5 | 48.0 |
| | 130.0 181.6 306.9 | Countries (B) 130.0 70.3 181.6 103.1 306.9 145.8 |

Source: Banco Central do Bras 1, Relatório 1971 (Brasilia, 1972).

industrial export still needs the preferential tariffs of LAFTA because production costs are higher than the world standard.

Total exports have increased rapidly in recent years, from 1,837 million dollars of the 1965–69 average to 3,987 million dollars in 1972. This owes much to the strong export promotion policy established by the Costa e Silva regime in 1967 (Table VI). Along with increasing exports, gross domestic product has also been on the rise, maintaining a 9 to 11 per cent growth rate since 1969.

TABLE VI

| • | • | EXPORTS OF BRAZIL | /T '11' 1 11 \ |
|---|------|-------------------|----------------------|
| | | | (In million dollars) |
| | 1963 | | 1,334 |
| | 1964 | | 1,403 |
| | 1965 | 4.4 | 1,595 |
| | 1966 | | 1,741 |
| | 1967 | | 1,654 |
| | 1968 | • | 1,881 |
| | 1969 | | 2,311 |
| | 1970 | | 2,739 |
| | 1971 | | 2,882 |
| | 1972 | | 3,987 |

Sources: International Monetary Fund, International Financial Statistics; Banco Central do Brasil, Relatório, 1971 and 1972 editions.

III. POSTWAR ECONOMIC DEVELOPMENT PLANS

Successive postwar Brazilian governments have drafted a series of economic development plans. Changes in the Brazilian economic structure are related to specific development policies. The initial postwar plan objectives were promotion of import substituting industries and improvement in the infrastructure. Emphasis has shifted more recently to integration of regional economies and export expansion, particularly of industrial goods. The First National Development Plan (1972–74) emphasized strengthening export competitiveness.

A. Programa de Metas

The leading element in Brazilian postwar economic development has been industrialization, but the lack of rational and long-term planning has created imbalances between the industrial sector and the economic infrastructure. Deterred development of the transportation and energy sectors is particularly marked. The need for social overhead capital investment was thus consciously felt by the government, which devised various development plans to promote further economic growth. The first of the series was the SALTE plan drafted in 1948,³ but the one with most far-reaching effect was the so-called Metas Program (Programa de Metas), a five-year development plan drafted during the administration of President Kubitschek.

The Metas Program ran from 1957 to 1961 and played an important role in heavy industry development in Brazil. Total investment under the program was 422 billion cruzeiros, or 2.5 to 7.6 per cent of annual gross domestic product during the period. Foreign capital amounted to about 15 per cent of total investment. The entire program consisted of thirty different sectorial plans. The investment fund allocated 42.4 per cent to the energy sector, 28.9 per cent to the transportation sector, and 22.3 per cent to basic industries. Food production received only 3.6 per cent and education only 2.8 per cent of total investment, indicative of the emphasis on industrialization and improved social overhead capital [7].

The overwhelming share of the funds necessary for the plan came through the state budget for domestic sources. This caused large deficits, financed by printing paper money, which aggravated inflation. Brazil's cost of living index (in the State of Guanabara) made a 21.7 per cent rise in 1956, and 43.2 per cent in 1961. Meanwhile, gross domestic product increased at the average rate of 6.5 per cent per year during the 1956–60 period. In particular, growth of industrial production registered a rapid progress of 64 per cent during the same period. Agriculture showed only a 19 per cent increase during the period, far below the target set in the plan. Considerable improvement was made in the infrastructure: electric power generation capacity rose from 2.8 million kilowatts in 1954 to 5.8 million in 1962, and length of paved roads increased to three times the 3,200 kilometers when the Kubitschek regime came to power [1, p. 67]. Expansion of existing industrial facilities and construction of new factories were noteworthy in the steel industry, and to a lesser extent in the cement industry. Automobile, shipbuilding, and heavy

³ SALTE is an acronym from the Portuguese words saude, alimentação, transportação, and energia, i.e., health, food, transportation, and energy.

electric industries were newly created under the Metas Program. The plan for the shipbuilding industry was on smaller scale than with automobiles but very similar. The new domestic heavy electric industry greatly reduced Brazil's dependence on the import of capital goods.

Continued deficit spending for the Metas Program, coupled with political confusion during President Goulart's administration (1961–64), further aggravated the inflationary trend, and the cost of living index rose by 80.6 per cent in 1963. In order to deal with the violent inflation and to avoid markedly lowering the growth rate, the Goulart regime drafted the Three-Year Economic and Social Development Plan (Plano Trienal de Desenvolvimento Econômico e Social) in 1962. This plan, however, was not put into effect owing to the downfall of the regime in a coup d'état in 1964.

B. Economic Action and Strategic Development Programs

The development of Brazil since the 1964 coup d'état can be divided into three phases corresponding to the following three economic development plans. (1) The Castelo Branco regime introduced the Three-Year Economic Action Program (Programa de Ação Econômica do Govêrno, 1964-66) to principally control inflation and reconstruct the economy deteriorated during the Goulart period. (2) The Costa e Silva regime established the Three-Year Strategic Development Program (Programa Estratégico de Desenvolvimento, 1968-70), aimed at inflation control and economic expansion. (3) The Médici regime put forth the First National Development Plan, 1972-74 (Primero Plano Nacional de Desenvolvimento Econômico e Social 1972/74), described in the next section.

The Three-Year Economic Action Program's first objective was inflation control, the basic line of the abortive Three-Year Economic and Social Development Plan. The program aimed at gradual control of inflation during 1964–65, with generally stabilized prices after 1966, and anticipated an economic growth rate of 6 per cent per annum interrupted since the economy had stagnated in 1962–63. Fiscal and monetary policies emphasized more, and budget expenditures were to be put to better use. Tax reform was to reduce or eliminate budget deficits, and increased public investment for infrastructure was to help inflation control.

In foreign trade, diversification of import sources and general export expansion were promoted. Confidence in the Brazilian economy was to be strengthened by repayment of foreign debt. Introduction of foreign capital and technology was also emphasized. The social policies of the program stipulated that workers should also enjoy the fruits of economic development through adequate wages, and agricultural workers' employment and living conditions should be improved through heightened agricultural productivity.

The 1967 Three-Year Strategic Development Program set the following aims to be accomplished during 1968–70: (1) inflation control and economic growth acceleration; (2) promotion of social development; and (3) expansion of employment opportunities. To control inflation and maintain minimum growth at 6 per cent, the operation rate of existing productive facilities should be raised in the first stage, and investment in priority fields should be promoted, production methods improved

and human resources more adequately supplied in the second stage. Government investment was concentrated on infrastructure (electric power supply, transportation, and communications), and on steel, mining, housing, health services, education, and agriculture (particularly to eliminate the food shortage). Housing investment was 23.7 per cent of the total, transportation 16.7 per cent, and electric power 19.4 per cent [8].

Both this program and the earlier Metas Program emphasized energy, transportation, and communications (Table VII). In the Metas Program basic industry was

TABLE VII
INVESTMENT FUND ALLOCATION IN THE METAS PROGRAM AND
THE THREE-YEAR STRATEGIC DEVELOPMENT PROGRAM

(%)

| | Metas Program | Strategic Development Program |
|-----------------------------------|---------------|-------------------------------------|
| Energy | 42.4 | 26.9 |
| Transportation & communications | 28.9 | 20.4 |
| Foodstuff | 3.6 | 4.2 |
| Basic industries | 22.3 | 14.0 |
| Education | 2.8 | 4.8 |
| Housing & health services | . | 27.6 |
| Development of science technology | _ | 2.1 |
| Total | 100.0 | 100.0 |

Sources: [7] [8].

secondary while in the Three-Year Economic Action Program housing and health services received more attention. The Castelo Branco and Costa e Silva regimes, with military support, placed more importance on improving basic economic conditions and they accomplished a great deal in controlling inflation. The cost of living index rose only 24 per cent in 1968 and 24.2 per cent in 1969. Thus the basis for rapid post-1969 growth was firmly established.

C. The First National Development Plan

President Médici announced his development plan for the three year period, 1972–74, in November 1971. According to the plan the gross domestic product is expected to grow at an annual rate of 8 to 10 per cent, while price rises should be lowered to about 10 per cent annually [6, p. 5].

The emphasis in development strategy is on the following three points: (1) expand the frontier so that the large interior area can be more fully utilized; (2) utilize human resources to the maximum extent; and (3) consolidate development of the Center-South and continue industrializing the Northeast. For the third item, efficient industries with modern technology should be encouraged, and the country's resources fully mobilized for stronger overall national competitive power. In one word, national integration should be completed [6, pp. 11–12]. The plan encourages investment in both the agriculture and manufacturing industry to expand production and employment, and also, investment in infrastructure improvement.

The industrialization strategy wants enhanced competitiveness through lowered cost and improved quality, calling for a growth rate of over 10 per cent. In order to avoid random participation of a great number of small enterprises in newly created industries, new enterprises will be selected by rigid criteria. In trying to raise the rate of domestic production in given fields, the plan is careful not to allow import substitution at excessively high cost, which would lower the competitive power of the economy [6, pp. 15–17].

Agriculture should grow at least 7 per cent per annum. In the Southeast and the South, agriculture should adopt modern forms of management, transforming farming units into business enterprises. The international competitive power of staple agricultural products should be improved, including those, like wheat, which can substitute for imports in only certain areas. In order to facilitate export of agricultural goods, particularly those commodities produced inland, harbor facilities should be modernized and special transportation structures—transportation corridors—be constructed. Consideration should also be given to improvement of rural financial institutions, expansion of warehouse capacity both at the place of harvest and throughout the distribution system, and credit extension to establish food marketing centers. Priority in agricultural development is given to products with high income elasticity, such as beef, dairy products, fish, and other livestock products [6, pp. 17–18].

Regional development strategy is based on a national integration plan for the creation of a unified domestic market to maintain self-sustaining growth on the demand side and strengthen the regional economies on the supply side. In other words, regional centers should be established (agriculture in the South and the Northeast, mining and agriculture in the Central Plateau and Amazonia) to supplement the giant centers of São Paulo, Rio de Janeiro, and Belo Horizonte, so that stronger regional economies can be established. In the past, integration of the North with the South was attempted. But the present plan attempts to integrate unskilled labor in the Northeast with the soil and underground resources of the Central Plateau, i.e., integration of East with West. In both the Southeast and the South, industries employing high levels of technology should be established, such basic industries as steel production and shipbuilding should be expanded, and modern agriculture under the enterprise form of management should be further developed. While these two regions will probably continue rapid growth even without special aid measures, the Northeast and Amazonia require special tax incentives for more vigorous development. Major projects for regional development include construction of the Trans-Amazonia Road, the Cuiabá-Santarén Road, and other highways, as well as establishment of an air traffic network [6, pp. 19-24].

In order to achieve the economic growth target, an annual increase of more than 10 per cent in exports is called for, and more than 20 per cent increase for export of industrial goods. Industrial products except processed agricultural products are expected to surpass coffee as the principal export item in 1974 and exports of mining products and non-traditional farm products are to increase sharply in 1974–75. Export growth should be facilitated by such measures as expanded infrastructure, adoption of a flexible exchange rate system, tax incentives, financial aid

measures in production and sales, tariff changes, and construction of more warehouses [6, pp. 27-28].

The plan also stipulates that foreign capital should be directed toward those areas of economic activity where high level technology is required. Foreign capital should also promote export expansion and substitution of imports, and also contribute to a favorable balance of international payments by supplementing the activities of national enterprises. Investment by foreign firms is not encouraged in areas where domestic enterprises already operate [6, p. 10].

In order to achieve the above objectives, the 1970 gross fixed investment rate of 17 per cent should be raised to 19 per cent in 1974 [6, pp. 43-47]. The investment plan is shown in Table VIII.

TABLE VIII Investment Plan (1972-74)

(In million cruzeiros and in 1972 price terms)

| in 1972 pric | e terms) |
|--|----------|
| Education | 31,200 |
| Health services and sanitation | 15,200 |
| Scientific & technological development | 1,750 |
| Agriculture-food market centers | 15,600 |
| Power | 24,400 |
| Electric power | 17,300 |
| Petroleum and shale (including 1,780 for prospecting) | 7,100 |
| Transportation | 20,100 |
| Highway system | 10,600 |
| Railroad system | 4,570 |
| Harbors and maritime & river navigation | 3,670 |
| Air transportation | 1,260 |
| Communications | 3,120 |
| Industrial development (with high private participation) | 30,400 |
| Iron & steel | 7,700 |
| Chemical industry | 5,500 |
| Mechanical & electrical industry | 8,000 |
| Foundries | 170 |
| Cast iron and steel | 450 |
| Iron alloys | 130 |
| Nonferrous metals | 650 |
| Cement | 1,000 |
| Cellulose & paper | 2,800 |
| Nondurable consumer goods | 4,000 |
| Mining | 3,690 |
| Investment in public & private sectors | 3,260 |
| Federal investment for research of mineral resources | 430 |
| Housing | 17,500 |
| National integration (PIN-3,090; PROTERRA-3,000) | 10,550 |
| Social integration | 5,730 |

Source: [6, Table 4].

IV. SALIENT FEATURES OF DEVELOPMENT POLICY AND PROBLEMS

A. Salient Features of Development Policy by the Médici Regime

As can be clearly seen from the First Three-Year National Development Plan announced in 1971, the Médici regime advocated a lower inflation rate with high economic growth. At the same time the past regimes' efforts brought inflation fairly well under control and have enhanced the economic growth rate during the Castelo Branco and Costa e Silva years. One conspicuous feature of the Médici development policy is that while previous plans aimed at industrialization and improvements in the infrastructure, it was structured on an advanced stage of development of the Brazilian economy to justify new objectives and new methods in their efforts for further development.

The following features are characteristic of the Médici development policy. First, promoting industrial goods export. Until then, Brazil defined industry as import substitution industry, and was not at all enthusiastic about export. Due partly to higher industrial production cost, industrial export was limited to whatever the country could export to other LAFTA countries. The industrial standard of the country has apparently improved in recent years, and the government may now adopt strong export promotion measures on this basis taking a more positive view of strengthening international competitive power, as pointed out by the three-year plan.

Secondly, previous emphasis on industrialization and relative negligence of the agricultural sector was amended to promote interior development so that national economic integration would be achieved. One industry to be promoted in interior areas was agriculture and, in certain regions, mining commands strong interest. With the aim of exporting more agricultural and mining products, stronger competitive power in the primary sector was emphasized. In order to construct transportation facilities to bring products from the interior to port, transportation corridors must also be built.

Thirdly, development of the Amazonia region, the hitherto least developed interior area, was taken up.

Past plans provided for merely road transportation, but the new plan attempts to send the reserve labor force of the Northeast to Amazonia development, and also emphasizes road construction in the east-west direction.

B. Current Issues in Development Policy

We have pointed out the characteristic features of the development policy of the Médici regime centering around its First Three-Year National Development Plan. This policy, however, contains various problem areas under the existing state of economic affairs in Brazil today. They are concerned, in particular, with the issues of productivity of Brazilian industries and regional and income discrepancies.

1. Productivity of manufacturing industries

Widespread import substitution in various Latin American countries has raised production cost for manufactured products above the world industrial level [20, p. 15]. Brazil is no exception in this respect, and its manufacturing industries have high production costs [5, pp. 46–47]. But labor productivity in the industrial sector seems to have risen greatly in the past fifteen to twenty years [4, p. 222] [5, pp. 37–39]. As a result certain manufacturing industries now have fairly high labor productivity. Since there are large discrepancies in productivity between various fields of production in Brazil [5, p. 37], we cannot generalize about industrial productivity, except to say that in comparison to other Latin American countries Brazil now has a greater number of industries with high labor productivity.

The iron and steel industry in particular is in an advantageous position in terms of both material and labor cost. Productivity of the Brazilian iron and steel industry is higher than in other Latin American countries due to the coke rate of blast furnaces [2, pp. 91–99]. The only countries with higher furnace productivity than Brazil are Japan (450 kilograms) and the United States (550 to 570 kilograms) [2, p. 92]. In the USIMINAS steel works, basic operational costs are said to be lower than those in the United States [4, p. 214].

In spite of the above, however, productivity is not higher for Brazilian industries in general. The scale of enterprise in the industrial sector is rather small. In 1969 there were only 676 firms with more than 500 employees, 1.8 per cent of the 37,261 companies. Even in the highly productive steel industry, Companhia Siderúrgica Nacional in Volta Redonda produced only 1,553,000 tons of ingots in 1971, and other mills produced less than 1 million tons. In the automobile industry, Volkswagen produced 233,600 units, GM over 70,000, and Ford-Willis 76,000 in 1970, but the other seven produced less than 20,000 units each.

The textile industry suffers from fairly high production cost due to outmoded machines as well as defective management [4, p. 140]. In the food industry, the shortage of storage capacity helps bring about higher cost [4, p. 147].

The capital goods producing industry belongs to those with higher international competitive power among other industries in the manufacturing sector. This is due, first, to the fact that machinery and equipment is not susceptible to mass production, making the cheap labor in this country a truly advantageous factor, and, secondly, to the lower ratio of materials cost made possible by home-producing these materials to supply them at prices on the international level. Thus, certain machine tools, industrial equipment, and inland transportation facilities (except automobiles) were not protected so heavily, with lower customs duties to make for easy importation [4, p. 133]. On the other hand, public investment and subsidies played an important role in iron and steel, petroleum, chemicals, nonferrous metals, heavy machinery, automobile, and shipbuilding [5, p. 41], while strong measures for protection were applied to automobiles, electrical equipment, and shipbuilding [4, pp. 41–42, 133].

Let us look at the automobile industry. Retail prices of cars are about twice as high as those of other industrialized countries. The ex-factory price of one auto-

manufacturer is 25 per cent higher than CIF, and nearly 50 per cent higher than the ex-factory price in its home country. This is caused by a high rate of indirect tax, so that the tax comes to occupy a large part of the retail price [4, p. 128]. The real production cost, therefore, would be nearly 15 per cent higher than in its home country in the case of the largest auto-manufacturer [4, pp. 129–30]. This applies to Volkswagen which operates on the largest scale in Brazil,⁴ and Brazilian products are inferior to West German cars in terms of quality.

The shipbuilding industry suffers from high production cost due to lower productivity of related industries [10, p. 340]. The price of each ship, therefore, is decided independently from the international market price, and subsidies are provided from the merchant marine fund system for the cost of ships. According to an estimate by Ishikawajima do Brasil Estaleiros S. A., price of ships constructed in Brazil is 30 to 40 per cent higher than the prevailing international price.

The First Three-Year National Development Plan advocates strengthening international competitiveness of the manufacturing sector through lower production cost and improved quality of goods, and provides various measures to achieve this objective. When these measures make themselves felt, productivity of the manufacturing sector will be greatly enhanced. The results of productivity improvement in Brazil are higher than in other Latin American countries, but far from sufficient in world level terms. Much remains to be done through future development efforts.

2. Export promotion subsidies

Export promotion, at a time when industrial productivity is not always on the international level and competitive power is not necessarily sufficient, will require the help of strong export incentives. Since the Castelo Branco regime in 1964 the government of Brazil has made many export promotion efforts. The first was creation of CONCEX (Conselho Nacional de Comércio Exterior [National Council of Foreign Trade]) in August 1966. This does not mean that there was a complete lack of export promotion efforts until then. A foreign exchange retention credit scheme for exporters and various tax incentives had been provided. But a basic organization for export promotion was lacking. Above all, lack of a well-established export financing system and an export insurance system was most acutely felt. The export authorization system and complicated procedures discouraged export activities. Furthermore, neither inland transportation nor port facilities were well established. These obstacles have been gradually conquered; export authorization can be obtained quite easily now and positive measures are in practice to promote exports.

Simultaneously with the creation of CONCEX, FINEX (Fundo de Investimento Nacional de Exportação [National Investment Fund for Export]) was established to make loans to export good producers. Banco do Brasil also started making loans to such producers. These producers also were allowed to import, on a duty-free

⁴ In September 1969, a "Volkswagen 1300" made in Brazil cost 11,000 cruzeiros, or \$2,650. After deducting various taxes like the 20 per cent industrial product tax which altogether amount to 40-45 per cent of the quoted price, the before-tax price would still be about \$1,460-1,590. CIF price of the same car made in West Germany was only \$1,200.

basis, industrial machinery and equipment, parts, semi-finished goods, raw materials, and packing materials at 10 per cent increase in exports over the previous year (the imported goods must be used by the firms themselves). Exporters of industrial goods are exempted from industrial product tax (impôsto sobre produtos industrializados), the commodities distribution tax (impôsto sobre circulação de mercadorias), and corporation profit tax imposed on the income yielding from the export of industrial goods. Duty-free import of mechanical equipment and raw materials necessary for export of industrial goods is also allowed up to one-third of the export amount. Foreign firms may also bring in plants, duty-free, to produce export goods.

Along with these direct export promotion measures, trading companies specializing in export goods are being established to improve and strengthen the hitherto inadequate export organization. These trading companies are patterned after the Japanese general trading companies, and enjoy special tax and financial treatment. Export corridors under planning have already been mentioned.

The flexible exchange rate system put into effect in 1968 has served to restrain speculative activities and, at the same time, to increase exports through constantly adjusting the exchange rate to the domestic price level. This so-called mini-devaluation, proposed by Japanese scholars to avoid large-scale revaluations of the yen, deserves close attention.

We have mentioned direct measures for export promotion, which have contributed much to expand export of industrial goods. But when these measures are evaluated in connection with the fact that Brazilian manufacturing, as yet, has not always adequate international competitive power, some reservations come to the fore. Just as some of Brazil's import substituting industries were nurtured by heavy protective tariffs, industrial exports have also been aided by heavy subsidies. Without ignoring the negative effects of such subsidies on the total national economy of Brazil [4, pp. 259–66], many influential authorities assert that Brazilian industry will require protection for some time to come.⁵

3. Integration of regional economies and income discrepancies

The various regions in Brazil have developed as independent economic entities with little relation between them. As mentioned in Section I, since São Paulo City began to develop manufacturing, integration of the entire Brazilian economy with the core in the Southeast is now conceivable. However, large regional discrepancies still remain (Table IX). As of 1968, 62.9 per cent of the net domestic product accrued from the Southeast with 42.7 per cent of the total population. The South has 17.3 per cent of the net domestic product and 17.6 per cent of the total population. In contrast, the North and the Central West with 3.9 and 5.5 per cent of the population, respectively, had 2.1 per cent and 3.2 per cent of the net domestic product. The Northeast contains 30.3 per cent of the total population, but only 14.4 per cent of net domestic product. Per capita net domestic product for each

⁵ At a seminar on the Brazilian economy (Tokyo, January 29, 1973) Afonso Celso Pastore (Universidade de São Paulo) stated that Brazil would need protection and prospects of lifting them were not in sight.

state in 1968 is shown in Table IX, the highest figures of 2,239 and 1,650 cruzeiros are for Guanabara and São Paulo and the lowest 240 cruzeiros for Piauí.

TABLE IX
NET DOMESTIC PRODUCT AT FACTOR COST BY STATE (1968)

| State | Net Domestic Product (1,000 Cruzeiro) | Per Capita Net Domesticí Product (Cruzeiro) |
|---------------------|---|---|
| North | | |
| Amazonas | 530,433 | 591 |
| Pará | 1,100,743 | 536 |
| Northeast | | |
| Maranhão | 831,250 | 294 |
| Piauí | 390,312 | 240 |
| Ceará | 1,690,501 | 403 |
| Rio Grande do Norte | 672,953 | 446 |
| Paraíba | 810,759 | 355 |
| Pernambuco | 2,658,254 | 542 |
| Alagoas | 570,395 | 380 |
| Sergipe | 389,757 | 460 |
| Bahia | 3,312,019 | 468 |
| Southeast | | |
| Minas Gerais | 7,869,709 | 724 |
| Espírito Santo | 1,010,776 | 670 |
| Rio de Janeiro | 3,808,319 | 850 |
| Guanabara | 9,026,251 | 2,239 |
| São Paulo | 27,657,332 | 1,650 |
| South | • | , |
| Paraná | 4,815,461 | 738 |
| Santa Catarina | 2,076,353 | 759 |
| Rio Grande do Sul | 6,721,327 | 1,066 |
| Central West | | , |
| Mato Grosso | 757,896 | 499 |
| Goiás | 1,505,480 | 538 |
| Distrito Federal | 301,322 | 589 |
| Total | 78,280,943 | 887 |

Source: Compiled from Ministério do Planejamento e Coordinação Geral; Fundação IBGE; and Instituto Brasileiro de Estatistica, *Anuário Estatístico do Brasil 1971* (Rio de Janeiro, 1971).

Such regional discrepancies are due to a lack of inter-regional interchange. Some regional integration was made at the same time as industrialization of São Paulo, but it still lacked sufficient mutual interchange to bring about adequate integration of the Brazilian economy. In the meantime, labor moved from the Northeast to the Southeast, or from low productivity regions to high ones, providing a cheaper labor force for the Southeast which enabled an increasing average profit rate for capital invested. This served to attract capital to the Southeast from poorer regions. The result was a progressively concentrated capital to help create external economies, boosting the growth of this already rich region further [9, pp. 264–65]. This naturally further aggravated regional discrepancies.

The new plan calls for the establishment of manufacturing industries in the Northeast and the North, and a shift of surplus population to Amazonia. Industrialization of the Northeast and the North should certainly contribute to higher income in these regions. But the required population shift from the Northeast to Amazonia would require movement of people to less prosperous areas, rather than the prosperous Southeast. Exploitation of the soil and natural resources can be expected to gradually raise income levels in Amazonia, but unless exceptionally rich resources are encountered, quick elevation of income in this region seems to be extremely difficult, judging from past experience in migration into this region. Thus, the income gap between these regions and the Southeast will probably grow for some time to come.

The severest criticism against the development policy since 1964 has been directed at the growing discrepancies in income distribution between various income groups. During the 1960s, the annual average income of the richest 5 per cent of the population (A and B₁ combined in Table X) increased faster than any other group, and

TABLE X
INCOME DISTRIBUTION IN BRAZIL (1960, 1970)

| | | Population | | Annual Income | | | |
|--------|------------------|---------------|----|-------------------------|-------------------------------|--|--|
| Group | | (Million) (%) | | Percentage to the Total | Per Capita Income (Dollar) | | |
| 1960 A | | 0.7 | l | 28 | 8,400 | | |
| В | 1 | 2.8 | 4 | 16 | 1,200 | | |
| В | l ₂ . | 10.5 | 15 | 21 | 420 | | |
| C |) | 21.0 | 30 | 20 | 200 | | |
| D |) | 35.0 | 50 | 15 | 90 | | |
| 1970 A | 1 | . 0.9 | 1 | 30 | 12,000 | | |
| В | 3 1 | 3.6 | 4 | 20 | 2,000 | | |
| | $\frac{1}{3}$ | 13.5 | 15 | 22.5 | 600 | | |
| C | _ | 27.0 | 30 | 15.0 | 200 | | |
| Γ |) | 45.0 | 50 | 12.5 | 100 | | |

Sources: Comissão Econômica para América Latina, Estudio de la Distribución del Ingreso en el Brasil (Rio de Janeiro, 1967); [15, pp. 944, 946].

their share of total income increased from 44 per cent at the beginning of the decade to 50 per cent in 1970. The low income group, composed of 50 per cent of the total population, had a per capita income rise of only 11 per cent in the decade, and their share in total income dropped from 15 per cent in 1960 to 12.5 per cent [15, pp. 944–47]. Beyond doubt, Amazonian development and fuller integration of the poorer regions into the national economy will play an important role in overall economic development, but both regional and personal income discrepancies will remain large, and making for more serious problems for some time to come.

4. Balanced growth of manufacturing and agriculture

Development of backward regions and their integration with the national economy will inevitably require further exploitation of underground resources and agriculture as leading industries in these regions. In Amazonia the most important sector is agriculture, although development of underground resources is also being contemplated. All past development plans gave single-minded priority to the development of manufacturing, and stressed improvements in the infrastructure. But the First Three-Year National Development Plan places emphasis on agriculture to develop backward regions, and attempts to balance the growth of manufacturing and agriculture.

Hitherto, productivity of Brazilian agriculture has been low in comparison with the other Latin American countries as well as the world level (Table XI). This has

TABLE XI

AVERAGE LAND PRODUCTIVITY OF MAJOR LATIN

AMERICAN COUNTRIES (1968)

(In 100 kilograms per hectare)

| · · · | Wheat | Corn Maize | Rice | Cotton | Sugar Cane | |
|-----------|-------|-------------|------|--------|------------|--|
| | | COIN WIEIZO | 100 | Cotton | Dugai Cano | |
| Brazil | 7.2 | 13.4 | 14.9 | 2.6 | 454 | |
| Argentina | 9.8 | 19.4 | 40.0 | 2.6 | 500 | |
| Chile | 17.4 | 36.2 | 28.8 | _ | _ | |
| Colombia | 12.0 | 10.8 | 29.4 | 6.0 | 522 | |
| Mexico | 26.4 | 12.0 | 27.2 | 7.3 | 625 | |
| Peru | 10.0 | 16.4 | 33.1 | 6.5 | 1,458 | |

Source: Food and Agriculture Organization, Production Yearbook, Vol. 23.

been due to outdated farming techniques and the absence of measures to preserve fertility of the soil and protect against erosion. Little fertilizer has been used, and tractors and other farm machinery have been scarce. Only the large area of land and low wages have been favorable. But with less land left, interior development may require large amounts of capital for basic improvements, even with low land prices and low wages. Appropriate measures to reclaim impoverished and discarded land should be given higher priority. Attempts should also be made to raise the productivity of presently cultivated land [13, pp. 45–46]. It is quite possible to raise the land productivity for coffee in Brazil through proper fertilization, soil preservation, and pruning. Through such measures it will become unnecessary to raise coffee in the State of Parana, where risks of frost damage are great. An urgent objective should be to raise land productivity, and this is perhaps the biggest task in promoting the export of farm products.

5. Shortages of skilled workers and engineers

No shortage of unskilled labor is observed in Brazil, but skilled workers and engineers are in apparent short supply. Attempts are being made to train skilled laborers and engineers in sufficient numbers through formal school education and special vocational training. But the setup is not able to provide adequate numbers if the economy grows at a fairly rapid rate. When the rate of economic growth of industrialization exceeds 10 per cent, one observes conspicuous shortages in the skilled labor force and for engineers. Rates of growth for the Brazilian economy have been high: 11.3 per cent for 1971, 10.4 per cent for 1972, and 11.4 per cent for 1973. Shortages in this category of the labor force bring about higher wages,

whose effect in turn will spread to the general price level and strengthen the trend of cost-push inflation. Thus, this shortage of skilled labor and engineers sets limits on the growth of the Brazilian economy.

V. CONCLUSION

We have examined the various development plans established in the process of economic development in Brazil. Particular emphasis has been given to the current First National Development Plan (1972–74) under the Médici regime, along with the unresolved issues of development. Inflation control has been quite effective, and the increase in the cost of living index in the State of Guanabara dropped to 20.9 per cent in 1970 and to 14.0 per cent in 1972. On this foundation, various plans have been drafted for the purpose of expanding economic activity, of which promotion of industrial exports and integration of the regional economies will have the greatest impact on the future economic development of Brazil.

Increases in export of industrial goods will bring about both qualitative and quantitative changes in the Brazilian economy. But the probability of prolonged subsidies for export promotion of industrial products will create complex problems for overall economic growth.

Integration of the various regions will bring epoch-making changes to the Brazilian economy, which is still not fully integrated as a national economic entity, since a portion of the population is still outside the market economy. This problem will be overcome as backward regions are developed. Interior development poses many problems, but it is a factor which will guarantee Brazil's continuous economic development for a long period into the future if political stability can be maintained.

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