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BRAZIL: CHANGING PATTERNS OF FOREIGN TRADE, (U)
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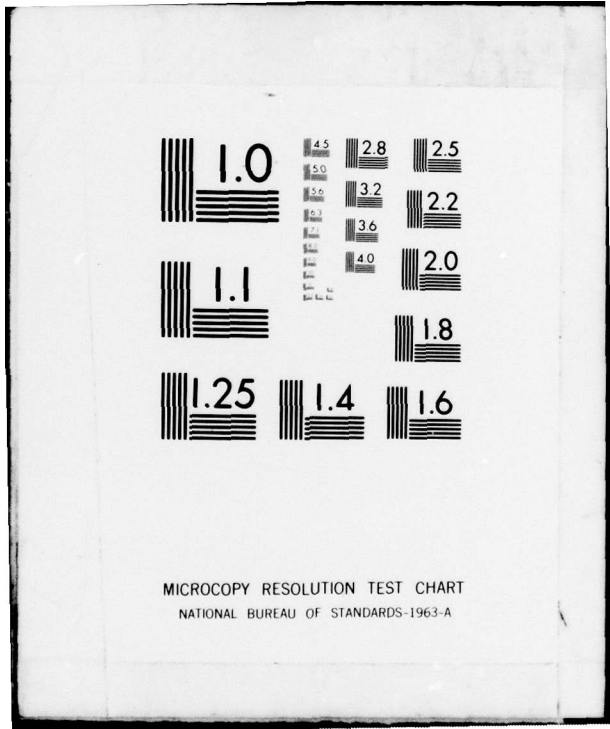
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6 BRAZIL: CHANGING PATTERNS OF FOREIGN TRADE,

by

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A study prepared for the Department of State under its External Research Program

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BRAZIL: CHANGING PATTERNS OF FOREIGN TRADE

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SUMMARY

"BRAZIL: CHANGING PATTERNS OF FOREIGN TRADE"

by Gertrude E. Heare

Between 1964 and 1974 Brazil's total trade turnover increased eightfold, from \$2.7 billion to \$22 billion. Exports rose 457 percent to just under \$8 billion, and imports 1021 percent to more than \$14 billion (c.i.f.) during the 11-year period. This increase reflected a substantial growth of volume as well as higher prices for goods traded. In 1975, the trade turnover again totalled around \$22 billion, but the import deficit declined as exports reached an estimated \$8.7 billion and imports were held to an estimated \$13.4 billion (\$12 billion, f.o.b. value).

Export composition changed as Brazil diversified raw material and industrial production for export. Coffee, formerly the mainstay of exports, dropped to 11 percent in 1974 and 10 percent in 1975 (partly due to deliberate withholding from the market), while exports of other primary products such as sugar, iron ore, soybeans, accounted for much of the phenomenal trade gains and made up 49 percent of total exports. By 1974 "industrialized products" ranging from processed raw materials to advanced electronics equipment had increased to 37 percent of total exports (about 4/5 being in more advanced categories) and represent the most dynamic sector of the export offensive. (Multinational corporations probably accounted for more than

two-fifths of such exports and an even greater share of the more sophisticated classes of products.)

Brazil's markets as well as commodities sold have become increasingly diversified. Brazilian exports showed a high degree of market concentration in the 1920s and 1930s when dependence on coffee exports to the United States dominated the country's export trade situation. Brazil continued to have a fairly high degree of market concentration into the 1960's, but by 1973, markets for Brazil's export trade had proliferated and dependence on the United States had declined. (See p. 9, "Brazil's Pattern of Trade")

Brazil has an enormous export potential in agricultural products, as demonstrated by the recent rapid growth of sugar and soybean production for export and as expected in beef, citrus fruit, corn, rice and possibly corn and cotton over the long run. The low level to which coffee exports sank in 1974 may become typical by 1980. On the other hand, a 15 million ton crop of soybeans is possible by 1980, especially as Parana switches from coffee to other crops. Now one of the world's largest producers of sugar, Brazil aims for a 10 million ton output by 1980 and should become the leading world exporter.

Mineral products, 11 percent of Brazilian exports, will increase. Now second to Australia in exports of iron ore, Brazil should double exports to reach 110-120 million tons by 1980. In addition to iron ore, manganese, quartz crystal and other minerals which it exports in important volume, Brazil is also slated to become a major exporter of bauxite, nickel and a long

list of other minerals.

Brazilian exports of manufactured products will continue to increase. As long as the current world economic recession depresses foreign demand, the pace of their growth will lag behind recent levels which rose faster than overall Brazilian exports. Over the longer run, however, Brazil will be increasingly able to compete with the industrialized economies (e.g., the US and Europe) in world markets and is especially likely to become a major supplier of semi-manufactures and manufactures to Latin America. Its efforts to promote exports of processed goods will bring Brazil into recurring conflict with protectionist elements in the US and elsewhere. Balanced against this hazard will be the interest of the world's multinational companies in producing and exporting their Brazilian-made goods.

Brazil's demand for imports expanded rapidly beginning in the late 1960's, particularly for capital goods, industrial raw materials and fuel needed by the booming economy. Eighty percent of the \$5.3 billion rise in import values between the 1964-69 average and 1973 was accounted for by industrial input materials (49 percent) and machinery and equipment and scientific instruments (31 percent).

Brazil has diversified its sources of supply much less than its markets. It continues to rely essentially on the United States, Western Europe, Japan, and certain Latin American countries. However, Middle Eastern oil suppliers are assuming a larger role as oil price rises boost their share in total imports (20 percent in 1974). (See p. 9, "Brazil's Pattern of Trade")

Brazil's import requirements will continue to change. It has already eliminated the need to import most consumer durable and non-durable goods except wheat, but has correspondingly increased needs for industrial raw and semi-finished materials, such as petroleum, minerals, fertilizers, and iron and steel semi-manufactures. Brazil has the capacity eventually to reduce its dependence for these strategic imports. Where it does not, the country will try to find substitutes and will be careful in its foreign policies to cultivate friendly relations with supplying countries.

- Brazil uses petroleum to supply half its energy consumption and imports 80 percent of its petroleum needs. Prospects are for continued dependence on the Middle East, but modified gradually by nuclear and hydroelectric power expansion, and possibly greater domestic oil discoveries if the international oil companies enter into newly proposed "risk contracts" with the Brazilian government.
- Shortages of coking coal are being met by expanded domestic production and joint-venture agreements abroad.
- Brazil's steel production is growing and should triple by 1980 to 24 million tons, replacing imports (1.9 million tons in 1973, 4.4 million in 1974) within a few years, and thereafter make Brazil a net exporter.

--Brazil plans to develop non-ferrous metals supplies through joint-ventures abroad (e.g., copper) and use of Brazilian reserves (e.g., 3 billion tons of bauxite ore).

--Fertilizer demand (about 4 million tons) will probably be supplied from domestic production by 1980.

--Pulp and paper production, now almost sufficient for Brazil's needs, over the longer run will make this country one of the world's largest exporters.

In its trade balance, Brazil for the first time in many years registered a series of substantial deficits during 1971-73 (\$800 million in each year) which were capped by a tremendous deficit in 1974 (\$6 billion) as prices for oil and other imports rose sharply and considerable stockpiling of important commodities occurred. The deficit was cut to an estimated \$4.7 billion (based on c.i.f. import values) in 1975 through cuts in imports and a slightly higher level of exports. In 1974, the main deficit areas were the Middle East and oil suppliers (43 percent of the total deficit), the United States (29 percent), Western Europe (17 percent), and Japan (11 percent). (See p. 10, "Brazil's Net Trade Balance

US-Brazilian trade was in approximate balance during the 1960's, but since 1970 US exports to Brazil have grown much faster than US imports. This has produced a substantial and growing deficit in Brazil's balance with the United States at a time when Brazil is struggling with serious trade deficits in

trade with the Middle Eastern oil producers. Until recent years Brazil, as an exporter of tropical agricultural products, had not competed with the United States in international commerce. Brazil's rapid industrial development and agricultural diversification is now creating problems of competition with US goods in the US market (cotton textiles, shoes, office equipment, etc.) and in the markets of other countries of the world as well (soybeans, transportation equipment, office equipment, and certain types of machinery).

Latin America. Brazil looks to its Latin American neighbors for supplies of certain important foods and raw materials--notably wheat from Argentina, copper from Chile, and some oil from Venezuela. In recent years, this focus has intensified, with Brazil turning, for example, from African copper suppliers to Chile, where it is considering joint investment in copper mining. Equally important, Latin America is providing a widening market for Brazilian products, particularly manufactures and semi-manufactures. The commerce, which accounted for 12 percent of exports and 8 percent of imports in 1974, provided Brazil with an export surplus in 1971 and 1972, but was in deficit in 1973 and 1974.

Western Europe. Western Europe, as a whole, continues to be Brazil's major trading partner, accounting for almost 40 percent of its exports and 31 percent of imports in 1974. However, Brazil exports chiefly tropical products and raw materials to Europe and has not yet developed there a substantial market for

its more advanced manufactures. Inflows of liquid capital from Europe have contributed significantly to Brazil's general financial improvement in recent years, and provide relief--if not solution--for the payments problems facing the country in 1975-76. Continued depression in Europe can, however, erode Brazil's gains from trade with the region.

Japan. Brazil complements the Japanese economy, providing a storehouse of needed raw materials and semi-processed goods (cotton and pelletized iron ore, for example). In return, Japanese capital goods, investment, and technology contribute importantly to Brazil's dynamic manufacturing sectors. Although the commerce accounts for just 7 percent of Brazil's exports, and 9 percent of its imports (in 1974), it will almost certainly expand in the future, particularly if Japan resumes its development pace.

Middle East. Brazil's suddenly enlarged deficit with its Middle East trade partners is a major blow to the country's balance of payments situation, particularly when combined with rising costs of other imports since 1973. Steps taken to combat the situation include strenuous efforts to expand exports to Middle Eastern states (Brazil's exports to these countries amounted to 19 percent of its imports from them in each of the years 1973 and 1974). Brazil has also invited Arab loan and investment capital, searched for bilateral oil-for-Brazilian technical assistance deals (e.g., in Iraq), and proceeded with renewed determination to develop domestic energy supplies, with

the prospect that foreign oil companies will prove interested in exploring and exploiting for the government on a contract basis.

Communist countries. Customarily, Brazil tries to hold its trade with the smaller communist countries of Eastern Europe in approximate balance, selling surplus goods (such as hides and skins) and obtaining limited amounts of chemicals, machinery, ships and some raw materials (e.g., coal). Trade with the USSR and the PRC periodically becomes significant in volume and value, when the two large countries need foodstuffs or raw materials. The increase in sugar sales to the PRC and USSR in 1973 was especially notable. Brazil usually runs a sizeable export surplus with these countries, which is largely paid for in convertible currencies. While Brazil generally finds little of interest to purchase from communist countries, there is a prospect that it will import increased amounts of Soviet capital goods in the future under credit agreements covering in particular the supply of hydroelectric power plant equipment.

Sub-Saharan Africa. Brazil's trade with sub-Saharan Africa has increased in recent years, especially in the importation of minerals (e.g., copper and zinc), but is still very limited. Nigeria is an intermittent supplier of petroleum.

Brazil's Pattern of Trade, 1964 and 1973-74

	Exports (Fob)			Imports (cif)		
	<u>1964</u>	<u>1973</u>	<u>1974</u>	<u>1964</u>	<u>1973</u>	<u>1974*</u>
Total value (in billions of US \$)	\$ 1.4	\$ 6.2	\$ 7.9	\$ 1.3	\$ 7.0	\$ 14.1
<u>% distribution by area:</u>						
United States	33.2	18.1	21.8	34.5	28.6	24.3
Canada	1.5	1.1	1.2	1.1	1.8	3.3
Western Europe	43.2	47.6	39.7	27.9	35.8	31.2
Middle East and African oil countries	0.7	2.4	5.8	5.2	11.7	19.6
Japan	1.9	6.9	7.0	2.7	7.9	8.7
Latin America and Caribbean countries	9.8	10.2	13.2	22.3	9.8	8.5
Communist countries	6.2	6.5	5.2	5.5	1.4	1.2
Sub-Saharan Africa	0.7	1.5	1.6	0.1	1.5	1.2
All Others	2.8	5.7	4.5	0.7	1.5	2.0
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

* The area distribution of 1974 imports is based on data compiled on an f.o.b basis, with a valuation of \$12.6 billion.

Brazil's Net Trade Balances, by area, 1964 and 1973-74
(In millions of US dollars)

	1964	1973	1974*
United States	+ 38.5	-882.2	-1,334.7
Canada	+ 7.4	- 56.9	- 316.5
Western Europe	+265.5	+443.2	- 783.3
Middle East and African oil countries	- 55.9	-670.0	-2,008.6
Japan	- 6.0	-124.2	- 537.0
Latin America and Caribbean countries	-141.4	- 50.8	- 23.6
Communist countries	+ 19.6	+312.8	+ 258.3
Sub-Saharan Africa	+ 8.3	- 11.9	- 36.6
All Others	+ 30.3	+ 240.2	+ 97.8
Total	+166.3	-799.8	-4,684.2

* 1964 and 1973 data are based on fob export values and cif import values. In 1974, however, both export and import data by country are available only on an fob basis. There is a difference of 12% in the fob value of imports (\$12.6 billion) and the cif value of imports (\$14.1 billion) in 1974. In comparison to 1964 and 1973 balances shown, the 1974 balances are, therefore, understated when negative (-) and overstated when positive (+).

I. OVERALL TRADE TRENDS

The value of Brazil's foreign trade expanded slowly during 1964-69, but surged forward in the early 1970s at a rapid rate, owing very largely to an increase in the physical volume of goods exported and imported.* Beginning in 1972, higher prices for the goods traded also became an important expansionary factor. Exports valued at \$1.4 billion in 1964 nearly doubled to \$2.7 billion by 1970, more than doubled again to \$6.2 billion in 1973 and were just under \$8.0 billion in 1974 (Table 1 and Chart A). The value of exports in 1974 was 457 percent above the 1964 level. Exports rose in 1973 alone by 55 percent but a lag in shipments of coffee and soybean cake and meal helped to hold the increase in 1974 to 29 percent.

Imports of \$1.3 billion in 1964 were lower in value than in any year since 1956, and they dropped still further in 1965 to \$1.1 billion. Starting, therefore, from a relatively low base, the import side of the trade showed a startlingly high growth rate--555 percent--between 1964 and 1974. Imports more than doubled to \$2.8 billion by 1970 and rose again by two and one-half times to almost \$7.0 billion by 1973. The increase in

* This study is based on the final and complete statistical data which are available for 1964-73 and includes certain figures for 1974. Data for 1963 are included in Table 1 to set 1964-65 trade in perspective, particularly with respect to the severe cut-back in imports which occurred in those years.

1973 was 46 percent, while higher prices for petroleum and other imports contributed to a further increase of 101 percent to over \$14.0 billion in 1974.

II. EXPORTS

Economic Composition of Exports

The composition of Brazil's export trade has changed significantly during the past decade, reflecting the increasing diversification of the country's raw materials production pattern and its growing ability to export manufactured goods. Tables 2 and 3 highlight these changes by arranging export trade figures according to the degree of processing involved.* The most striking developments during 1964-74 were the decline of coffee bean exports in proportion to total shipments, the rise of exports of other primary products (e.g., sugar, iron ore, and soybeans) and the rapid advance of exports of "industrialized products" ** to 37 percent of total exports by 1974.

Coffee. Brazil continues to rank first among the world's coffee producers, and coffee beans, though surpassed by sugar and

* The economic definitions for exports used in this section of the study are those presented in publications of the Central Bank of Brazil. They vary from the official foreign trade data classifications, which are based on the Brussels nomenclature system.

** "Industrialized exports" includes manufactures such as textiles, chemicals, paper, machinery, etc., plus exports in classes V through VIII of the National Brazilian Nomenclature, plus parts of classes II, IV and IX, shown in Table 4. It covers manufactures and a number of processed goods such as carnauba wax, sawn lumber, cocoa butter, peanut and castor oils, processed beef, molasses, menthol, vegetable and fruit juices, soluble coffee, and essential oils.

soybean exports in 1974, have been the country's major single export. Brazil no longer depends on coffee exports, however, even as it did a decade ago, when coffee shipments still accounted for more than 50 percent of the total value of exports. Coffee dropped to 20 percent of total export values by 1973 and to only 11 percent in 1974. Moreover, coffee exports grew in value by less than 64 percent between 1964 and 1973, compared to a rise of nearly 334 percent in overall export values.

The absolute value of coffee bean exports rose, nevertheless, owing chiefly to slowly improving world prices, going from \$760 million in 1964 to over \$1.2 billion in 1973. In 1974, coffee exports declined to \$877 million, a drop of nearly 30 percent because of a lower volume of shipments and some weakening of world prices. Brazil shipped 16-18 million bags of coffee* a year during the past decade, but in 1974 the volume fell to 11.5 million bags because of a small crop and an effort to shore up world prices by withholding supplies to the market.

Competition from increasing African production reduced Brazil's share of the world market for coffee from 40 percent in 1964 to 33 percent by 1973 and--combined with Brazil's coffee withholding policy--to 25 percent in 1974. The drop in 1973 coffee export volumes also helped to reduce Brazil's share of the US coffee import market from 23 percent in 1973 to 16 percent in 1974. (Colombia took over as the primary supplier of coffee beans to the US market, increasing its share from 16 percent in 1973 to 19 percent in 1974).

* A bag of Brazilian coffee beans weighs 60 kilos.

Brazil was able, however, to raise its share of the US import market for soluble coffee from 44 percent in 1973 to 55 percent in 1974 as the value of its shipments to the US increased from around \$45 million to nearly \$66 million.

Other primary products. Brazil's exports of primary products other than coffee accounted for most of the phenomenal gains in the country's export volumes and values in recent years. Exports of these commodities rose from \$461 million, or 32 percent of total exports in 1964, to over \$3.9 billion, or 49 percent of total in 1974. The increase of 753 percent in value was more nearly two-thirds above the rate of increase in export values as a whole. This group of exports surpassed coffee beans in value terms in 1969 and has steadily moved ahead to stand 129 percent above the value of coffee exports in 1973 and 348 percent above in 1974.

Brazilian statisticians divide the non-coffee primary products into two categories in the analysis shown in Tables 2 and 3: "traditional" primary products--sugar, raw cotton, cocoa beans, iron ore and manganese ore; and non-traditional or "other" primary exports. The traditional group in 1974 had a value of nearly \$2.2 billion, or 27 percent of total exports, with over half of the group total consisting of sugar worth over \$1.2 billion. Sugar, in fact, became Brazil's leading export in 1974, partly because of extraordinarily high world prices. Rising world prices accounted for much of the 686 percent rise

registered in the value of these traditional primary commodities between 1964 and 1974, but a significant expansion also occurred during the period in the physical volume of the goods--notably in the case of sugar and iron ore.

The non-traditional or "other" primary products listed in Tables 2 and 3 comprise dozens of commodities, ranging in importance from cotton linters with an export value of about \$1 million in 1974 to soybeans, cake and meal valued at \$916.8 million in 1973 and \$888 million in 1974. Soy product exports surpassed coffee in value in 1974 to take second place among Brazil's leading exports. Soy beans, cake, and meal account for most of the nearly 854 percent rise in the value of this group of exports between 1964 and 1974. Other exports in the group rose in combined value by 378 percent, or less than the rate for exports as a whole.

The expansion of primary products exports, other than coffee, has given Brazil a new and welcome degree of resilience and flexibility in its export pattern which did not exist when the country depended essentially on coffee shipped largely to the United States. In 1974, for example, the higher volume and value of sugar shipments compensated significantly for the decline in coffee exports. The steady expansion of iron ore exports--from an average of 25 million tons during 1968-73 to over 59 million tons in 1974--has also strengthened Brazil's export pattern and enhanced its worldwide importance as a raw materials supplier.

Industrialized products. Brazil's growing exports of semi-manufactures and manufactures reflect the development and economic diversification which has taken place in the country's domestic production pattern during recent years. Exports of industrialized products rose in value from \$205 million in 1964, or 14 percent of total, to \$1.9 billion in 1973 (31 percent of total) and to over \$2.9 billion or 37 percent of total in 1974. They edged past coffee bean shipments in value terms in 1971 and were 56 percent higher than coffee in 1973. In the exceptionally poor coffee export year of 1974, industrialized products exceeded coffee export values by 238 percent.

The industrialized group of commodities possesses a significant "value added" component representing inputs of capital, technology and--in many cases--skilled labor. They are far and away the most dynamic sector of Brazil's export trade, increasing by 1342 percent in value between 1964 and 1974, rising in 1973 and 1974 by 59 and 53 percent, respectively. The more advanced categories of goods account for a steadily rising share of total exports of industrialized commodities, amounting to 79 percent of the total in 1974. The leading categories in the group as a whole were: rolling stock and vehicles, electrical machinery and apparatus, boilers and mechanical apparatuses, footwear, castor oil and cocoa butter.

Diversification of manufactures sales. The large scale expansion and dispersion of Brazil's export trade in manufactures is evidenced by the growth in value and number of markets of the individual commodity groups. For example, exports of "Machinery

and appliances other than Electrical Machine Parts, not elsewhere specified" were valued at \$2.3 million in 1964 and expanded to \$8.0 million in 1969 and to \$33.8 million in 1973; shipments were made to 33 countries in 1964, to 53 in 1969, and to 107 in 1973. Another example is "Office Machines" valued at \$855 thousand in 1964, sent to 16 destinations; \$19.7 million in 1969 (49 destinations), and \$42.3 million in 1973 (98 destinations).

A third example is scissors, a commodity which accounted for only \$2.2 million of the export trade in 1972 and \$2.7 million in 1973, but which is an excellent example of the widespread growth and dispersion of Brazil's trade. Exports of scissors in 1964, valued at \$49 thousand, were sent to only 7 countries. By 1973, exports of "scissors for tailors" valued at \$428 thousand went to 47 countries; those "for barbers", valued at \$118 thousand, went to 31 countries; and "other" scissors, worth \$2.1 million, were shipped to 57 countries.

The U.S. took 47 percent of the "others" scissor group, and the markets next in importance were Canada, Peru, West Germany, the U.K., Thailand, and Australia. In fact, Brazil supplied 9 percent of total US imports of scissors (\$13.8 million) in 1973, (ranking 4th, after Italy, West Germany, and Finland) and 8 percent in 1974 (ranking 5th as a source after the same countries and Japan).

This diversification of markets suggests that two common cliches concerning exports of manufactures from developing countries are not true in the case of Brazil. Specifically, the country's ability to ship equipment of the above character to a constantly growing number of markets indicates that sales do not depend on intra-company transactions (e.g., shipments of parts or certain lines or production by multinational subsidiaries in Brazil to home companies in the US or Europe). Moreover, Brazil is obviously not selling only to neighboring countries where it may enjoy some trade concessions.

Exports of foreign-owned industries. Brazil's ability to export manufactures is flourishing in many lines which are domestically owned (e.g., shoes). Nonetheless, the multinational corporations operating in Brazilian industry make a large contribution to industrialized exports, probably accounting for two-fifths or more of the country's shipments of those products. A Brazilian study published in 1972 estimated that foreign concerns provided 43.3 percent of such exports.* A rough calculation based on factory sales information for 1973/also suggests that around 43 to 44 percent of exports of semi-processed and manufactured goods in 1972 and 1973, respectively was provided by the multinational firms. This estimate, which is presented in the table

* Carlos von Doellinger, "Exportacoes brasileiras: diagnostico e perspectivas," in Revista Brasileira de Economia, Vol. 26, No. 1, 1972, cited in The Economic and Social Development of Brazil: Characteristics, Policies, and Prospects (OEA Ser. H/XIV,CEPCIES/48, 22 April 1975), p. 261.

** "Multinacionais: um momento para discussões," in Veja, May 21, 1975, pp. 80-86. The article presents data on aggregate net billings by Brazilian companies, derived from information given in Conjuntura Economica and Quem e Quem na economia brasileira.

following page 9, suggests that these firms accounted for perhaps 57 percent of total exports in 10 specific fields of industry which account for an estimated three-fourths of total industrialized exports.

Exports, By Customs Classification Categories

The economic classification of Brazilian exports, shown in tables 2 and 3, illustrates the increasing variety and growing sophistication of Brazil's production system and of its exports. Official trade statistics, based on the customs classification system, are, however, a better indicator of the material base of the trade (e.g., vegetable products, or base metals and their manufactures). Table 4 presents official trade figures on the annual average level of exports during 1964-69, compared to annual shipments made in 1970, 1971, 1972 and 1973.*

Total exports were 221 percent higher in value in 1973 than they were during 1964-69 on the average. Fifteen of the 21 categories of goods shown in Table 4 (excluding "special transactions") grew by more than the overall rate of growth. These groups accounted for over half of total shipments in 1973. Growth in six commodity groups, covering about 45 percent of exports, was below average, while one category (minerals) exceeded it by only a small margin.

* Decree Law No. 1, 154 (March 1, 1971) brought the Brazilian customs and trade statistics nomenclature system closer in line with the Brussels Customs Commodity Nomenclature, as adapted to Brazil's special needs and to the Brussels-based nonnomenclature system used in the Latin American Free Trade Association (LAFTA). Brazilian authorities have published summary figures reconciling the old and new classification systems for certain periods prior to 1971. At the time of writing, data arranged in the new classification system were not available for 1974.

Brazil: Estimated Share of Multinational Companies (MNCs)
in Exports of Industrialized Goods,* 1972 and 1973
(Values in millions of US dollars)

Selected industries	MNC share of industrial invoicing (percent)	Exports, 1972		Exports, 1973	
		Total Value	MNC Share	Total Value	MNC Share
Non-metallic minerals	64	8.3	5.3	13.1	8.4
Metallurgy	38	273.9	104.1	399.2	151.7
Transport equipment	96	76.6	73.5	91.2	87.6
Electrical and electronic equipment	76	39.4	29.9	84.9	64.5
Mechanical apparatus	67	100.7	67.5	127.8	85.6
Chemical-pharmaceutical products	94	63.1	59.3	98.0	92.1
Rubber	66	8.3	5.5	11.4	7.5
Plastics	77	2.9	2.2	7.7	6.0
Textiles	52	371.0	192.9	640.5	333.0
Tobacco products	99	2.4	2.3	3.4	3.4
A. Group Total		<u>949.6</u>	<u>542.5</u>	<u>1,477.2</u>	<u>839.8</u>
B. Total industrial- ized exports**		1,221.7		1,941.5	
MNC's share of A.			57%		57%
MNC's share of B.			44%		43%

*The proportion of total industrial production (as compiled from factory invoices) attributed to the plants of multinational corporations has been applied to total exports made in each of the 10 selected lines of industry. The sum of such exports is then taken as a proportion of the sum of the 10 industry exports (A) and of total industrialized exports (B).

**As defined in data presented in Tables 2 and 3.

Source: See footnote (**), page 8.

Footwear, a classification which also includes minor shipments of hats, feathers, and flowers was by far the fastest growing class of exports, rising in value by 8,895 percent from \$1 million to \$94.6 million. Although footwear, etc., still comprised less than 2 percent of total exports in 1973, the rapid expansion of these shipments contributed significantly to the income of the country's shoe industry, and helps to explain Brazil's anxiety to continue exporting these goods. Other rapidly expanding categories of exports were: "paper and materials for its manufacture" which grew by 1,747 percent; "miscellaneous manufactures," up by 1,596 percent; and "transportation material", up 1,376 percent.

One of the most important increases in terms of its contribution to overall export earnings occurred in shipments of "food products, beverages, vinegar and tobacco", which grew by 414 percent in value and from 15.5 percent to nearly 25 percent of total exports during the period under review. The group includes exports of sugar, orange juice and soluble coffee, as well as cocoa, animal feeds, and a variety of prepared foods.

Groups of commodities which increased by less than the overall average of 221 percent included some of Brazil's major export categories. "Vegetable products", a class which includes coffee, cereals, nuts and oilseeds, remained the largest single category of exports, but it rose in value by only 107 percent and dropped from an average of 47 percent of total shipments

during 1964-69 to 30 percent of total in 1973. If soybeans were excluded from the group, the growth record for "vegetable products" would have been ever lower. "Textiles, materials and manufactures" more or less stagnated in relative terms, showing a growth rate of 214 percent and providing slightly over 10 percent of total exports during 1964-69 and in 1973.

The food, vegetable and textile groups accounted respectively for 23, 29 and 10 percent, or a total of 62 percent, of the growth in the value of exports between 1964-69 and 1973. "Mineral products" accounted for 8 percent of the growth, "Live animals and animal products" for 4 percent, bringing the total up to 79 percent. An additional 12 percent was represented by the growth in the value of exports of fats and oils, base metals and their manufactures, footwear, transport material, and products of the chemical industry, thus accounting for 91 percent of the increase during the period.

Quantum Growth

Price played an important role in the rise in Brazil's export values, especially in the early 1970s. However, increases in the physical volume of goods shipped were also significant. The quantum index of exports (that is, an index of changes in the volume of goods) shows an increase of 149 percent in 1964-73, with a drop of about 3 percent in 1974 (see Table 5). However, when coffee is excluded from the computation, the increase was 280 percent, with an additional growth of 8 percent in 1974.

The index by industry classes shows a quadrupling of mineral exports in 1964-73, with a jump of more than 30 percent in 1974. Exports of manufactures grew by more than 400 percent up to 1973, but remained stationary in 1974. Indexes for certain dynamic growth industries showed a sharp increase in the volume of goods exported throughout the period; machinery shipments rose by 88 percent in 1974, transportation equipment also by 88 percent, and electrical and communications equipment by 50 percent. Unprocessed products--largely coffee and other agricultural products--showed much slower rates of growth in volume terms, expanding by 48 percent between 1964 and 1973, and declining somewhat in 1974 because of lower export volumes for coffee and some other commodities.

The following tabulation of quantum indexes for exports of specific primary products in 1964 through 1974 points up the high rate of growth in exports of iron ore, sugar, and soybeans, and the irregular course of the trade in coffee, cocoa beans, and raw cotton.

Exports of Specified Products, Quantum Index, 1964-74
(1965-67 = 100)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Coffee	95	86	107	107	118	119	102	110	111	114	73
Cocoa beans	70	87	106	108	71	113	113	112	97	78	122
Sugar	27	82	109	109	111	119	122	129	257	303	244
Soybeans	-	45	73	182	39	186	173	128	621	1,069	1,555
Raw cotton	105	95	114	92	120	212	166	110	138	137	40
Iron ore	73	96	97	107	113	161	211	233	229	338	447

Source: Fundacao Getulio Vargas, Conjuntura Economica, July 1975

The quantum index of exports by type of goods, shown in Table 5, indicates outstanding growth in the consumer durable goods field of more than 1,000 percent during 1964-72, and more than doubled again in 1973 alone. (This index is not yet available for 1974). A rise of more than 1,000 percent also occurred in the index for exports of "capital goods for industry" in 1964-73, with a further rise of 50 percent in 1974. The quantum of exports of raw materials for agriculture, such as livestock feeds, also rose, by 1,285 percent up to 1973 and by another 25 percent in 1974.

The index declined after 1968 for building materials, but that for other non-metallic industrial raw materials (shown on Table 5 as "non-metallic, excluding building materials") rose by nearly 80 percent from 1964 to 1973. The volume of this class of exports declined sharply, however, in 1974. Exports of metallic raw materials rose consistently during the decade, reflecting in large part the expansion of iron ore exports. The index of this class of exports was 441 percent higher in 1974 than in 1964. Non-durable consumer goods rose by 259 percent on a quantum basis up to 1973, but declined by around 16 percent in 1974.

III. IMPORT COMMODITY TRADE

Trends in Brazil's imports from 1964 to 1974 reflect: 1) restraint in the early post-revolution period caused by fiscal policies designed to correct rampant inflation; 2) a subsequent

developmental upsurge in overseas purchases beginning in the late 1960s; and by 1973-74, a growing import deficit caused by a quantum jump in purchases and higher prices, especially for petroleum imports. Imports worth \$6,999 million in 1973 were 454 percent above purchases valued at \$1,263 million in 1964, while in 1974 imports zoomed by another 101 percent to over \$14 billion (cif basis). The bulk of the import trade, year by year, went to expand the infrastructure and the industrial base of the country and to supply raw materials and semi-finished products for industry.

A breakdown of 1974 imports by commodity groups is available only on an fob basis in data compiled by the Central Bank. Table 6 shows these data which reveal the notable rise in petroleum import values, fertilizers, chemicals, and iron and steel products in 1974. The nearly four-fold rise in the value of oil imports compared to 1973 was due almost entirely to the rise in prices. Increases in the other major classes of industrial raw materials imported represented to some extent a greater volume of purchases made in anticipation of further hikes in materials prices.

Percentage increases in the value of imports from 1973 to 1974 were as follows for important commodities other than petroleum:

	<u>% gain</u>
chemical fertilizers	191
organic chemical products	71
iron and steel mill products	211
nonferrous metals	106

	<u>% gain</u>
electrical and nonelectrical machinery	45
tractors, trucks and other motor vehicles and their parts	66
wheat	40

Table 6 shows the radical change in the share of petroleum and its products in Brazil's imports--10 percent in 1968-72, 11.5 percent in 1973, and an almost doubling to 22 percent in 1974. Despite the large increases in the value of many of the other important commodity groups in 1974, their proportionate share of the trade, therefore, decreased. An important exception was iron and steel mill products, which accounted for 8 percent of import value in 1973, but for 12 percent in 1974 as a result of heavy stockpiling at high prices. The tonnage in this group increased by 131 percent while the value, as stated above, rose by 211 percent.

The value of imports classified according to the new Brazilian nomenclature system is shown in Table No. 7, as an annual average for 1964-69 and separately for each of the years 1970-73. (1974 figures in this statistical series are not yet available). Total value increased during this period by 317 percent, from \$1.7 billion in 1964-69 to \$7.0 billion in 1973.

Brazil produces most of its requirements of consumer goods (except for wheat) and by 1964-69 its imports were already con-

concentrated principally in the classifications covering capital goods, industrial raw materials, and fuel. The relative importance of these groups further increased during the period under review. "Vegetable products", which includes wheat, dropped from 13 percent of the total value in 1964-69 to 8 percent in 1973, despite the steep increase in the price of wheat in that year (the percentage was 6 in 1972).

Of the \$5.3 billion rise in the value of imports between the 1964-69 average and 1973, two major groups accounted for 80 percent of the increased value:

- 49 percent consisted of purchases of industrial input materials (chemicals, mineral products including fuels, base metals and their manufactures, plastic materials and rubber, and paper); and
- 31 percent came from imports of electrical and non-electrical machinery and equipment and scientific instruments.

The three classifications which include foodstuffs--"Animals and animal products," "Vegetable products," and "Food products, etc."--increased 9 percent, and the rise in transport equipment, a large share of which was represented by aircraft, was 6 percent.

Quantum Growth

The quantum index of imports (i.e., the measure of increases in volume) into Brazil (table No. 8) shows a rise of 244 percent in global trade from 1964 to 1973. The index by industry classes indicates an increase of only 25 percent in unprocessed products, and 181 percent in minerals, but 488 percent in manufactured products. The highest rate of growth was in products of the transportation equipment, machinery, and electrical and communications equipment industries--586, 516, and 513 percent, respectively.

The quantum index by type of goods shows the highest rate of growth--676 percent--in imports of raw materials for agriculture (which includes fertilizers), followed by capital goods (414 percent) and metallic raw materials for industry (385 percent), and transportation equipment (343 percent). The overall increase of 197 percent in the quantum index of imports of consumer goods was concentrated principally in the durable goods classification, which rose by 355 percent.

The following tabulation shows quantum indexes for 1964 through January-September 1974 for specific products for which data are available. Of the products listed, telephone equipment and parts--nearly 1,000 percent--and potassium chlorate fertilizer--861 percent--made the highest rate of growth in the period under review. At the same time, the index for imports of copper and its alloys rose by 279 percent, and those for crude petroleum and newsprint nearly tripled. The indexes for dry salted

codfish, and apples, pears, and grapes approximately doubled in 1964-73 and that for wheat rose by 23 percent; however, in January-September 1974 the indexes for imports of codfish and wheat dropped sharply, by 45 and 38 percent, respectively while that for the fruits increased by more than 100 percent.

Imports of Specified Products, Quantum Index, 1964-73 and January-September 1974
(1965-67 = 100)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Crude petroleum	101	96	106	99	117	125	148	158	214	300	294
Lubricants	104	82	108	110	131	102	155	130	141	162	202
Liquified gases	102	72	106	122	176	181	164	174	159	68	115
Bituminous coal	95	55	180	115	94	182	166	136	176	161	127
Wheat	117	84	107	109	117	105	88	77	81	132	96
Dry salted cod- fish	77	61	103	136	150	168	176	120	117	144	99
Apples, pears, grapes	60	82	85	133	168	172	168	181	195	129	262
Copper and its alloys	82	67	126	107	146	139	154	216	242	266	311
Newsprint	101	83	87	130	211	196	229	261	307	292	299
Potassium chlorate fertilizer	64	90	83	128	171	183	282	331	430	486	615
Tractors	138	81	141	78	189	149	192	221	284	248	354
Telephone equip- ment and parts	81	49	63	188	265	433	278	231	327	890	930

1/ Laspeyres-type index.

Source: Fundacao Getulio Vargas, Conjuntura Economica, August 1975

IV. BALANCE OF TRADE

In most of the years from the end of World War II through 1970, Brazil's exports and imports were in approximate balance. Although the f.o.b. value of exports exceeded the c.i.f. value of imports in only 9 of the 24 years, the balance was close enough in 12 additional years to bring them into the plus column if f.o.b. values are used for imports. A substantial import trade balance occurred, therefore, in only 3 years in this span of more than two decades--1952, 1960, and 1962. However, imports (c.i.f.) exceeded exports by \$800 million in each of the years 1971-73, and the sharp jump in the value of imports in 1974 increased the trade deficit to \$6 billion in that year. (See Table 1).

Brazil had an unfavorable balance of trade in 1974 with the U.S., Japan, Canada, and all trading areas and blocs except the Communist countries and Latin America other than the LAFTA countries (table No. 9). The excess of imports over exports in the case of the Middle East Oil States, as could be expected, was extremely large (433 percent of exports), but also was striking in the trade with the U.S., Western Europe, and Japan. The situation in 1974 contrasts sharply with that in 1964 when the trade deficit was substantial only in the case of LAFTA and the Oil States outside the Western Hemisphere, while trade with most areas, including the U.S., showed an export surplus. The export surplus was especially large for both the EEC countries^{1/} and other Western European nations.

^{1/} EEC data are on the basis of present membership in the Community.

United States. Brazil ran a small export surplus in its trade with the US in 1964 and achieved a substantial favorable trade balance in 1965. The trade was in approximate balance during the years 1966-69, but, beginning in 1970, Brazil's imports from the U.S. have exceeded its exports to the U.S. by substantial amounts, each year in an increasing proportion. As shown by the following tabulation, the proportion of imbalance (as a percentage of exports) ranged from 36 percent in 1970 to 44 percent in 1972, rose to 70 percent in 1973, and was an estimated 101 percent in 1974. The deficits in trade with the US are surpassed only by those with the Arab oil states, accounting in part for Brazil's sensitivity to any US move that limits its ability to sell in the US market. The US has been a growing market for Brazil's manufactured goods, though a flagging one for traditional exports such as coffee. The slowdown in US economic activity in recent years and the protectionistic aspects of US trade policies have been a major preoccupation of Brazilian policy-makers.

Brazil: Trade with the U.S., 1964-74
(millions of U.S. dollars)

Year	Exports (fob)	Imports (cif)	Excess of imports over exports	
			Value	Percent
1964	474.3	435.8	-38.5	-9
1965	498.9	325.7	173.2	-53
1966	587.4	590.0	2.6	1
1967	547.6	572.3	24.7	5
1968	627.0	684.5	57.5	9
1969	609.7	682.0	72.3	12
1970	676.1	918.1	242.0	36
1971	760.0	1,063.9	303.9	40
1972	931.2	1,339.3	408.1	44
1973	1,122.4	1,907.4	785.0	70
1974	1,713.0	<u>1</u> /3,443.0	1,730.0	101

1/ Estimated on the basis of f.o.b. value of \$3,071.8 million.

Source: Official Brazilian trade statistics

Canada. Brazil's trade balance with Canada was in surplus in 1964, but ran a deficit in each of the years 1970-74; in 1973 it was 82 percent of export values and in 1974, when Canada supplied the bulk of Brazil's wheat imports, the deficit was 332 percent. Exports to Canada increased by 38 percent in each of the years 1973 and 1974. The principal commodities included in the trade in 1974 were coffee beans, soluble coffee, cocoa and cocoa products, orange juice, canned meat, iron ore, lumber, sisal, textiles (including military uniforms valued at \$4.3 million), shoes, and motors.

About 23 percent of Brazil's imports from Canada in 1972 represented purchases of wheat, and this proportion rose to approximately 30 percent in 1973. The major share of the trade consisted of producer goods such as machinery, aircraft, fertilizers and other chemicals, newsprint, pulp for paper, synthetic rubber, iron and steel mill products, sulphur, asbestos, aluminum, copper, and zinc.

Latin America and other Western Hemisphere. Brazil's trade with its LAFTA partners was heavily in deficit in 1964--imports exceeded exports by 88 percent. The trade in 1964-74 showed a proportionately greater increase in exports (563 percent) than in imports (262 percent), with the result that the balance was positive in 1971 and 1972 and imports exceeded exports by a relatively small margin in 1973 and 1974--9 percent and 3 percent, respectively.

Brazil in 1974 had an excess of exports to Bolivia, Colombia, Ecuador, Paraguay, and Peru and an excess of imports from Argentina, Chile, Uruguay, and Venezuela; the trade with Mexico was approximately in balance.

Both exports to and imports from the other LAFTA countries showed a high degree of diversification in 1973 compared with 1964. In the earlier year, 62 percent of Brazil's exports to LAFTA customers was made up of coffee, cocoa, mate tea, sugar, fresh and dried fruits and vegetables, lumber, and iron ore; by 1973, these products represented only 23 percent of the trade. In addition to the traditional products, Brazil now exports to the LAFTA countries a wide variety of semi-manufactured and manufactured goods, including chemicals and chemical products, pulp and paper, iron and steel mill products and manufactures, machinery, office equipment, and transportation equipment.

On the import side a similar diversification has occurred: shipments into Brazil of grains and fresh and dried fruits and vegetables from Argentina and of petroleum, petroleum products, and gas from Venezuela accounted for 73 percent of the country's LAFTA purchases in 1964 and only 41 percent in 1973. The value of imports of the Argentine food products named has increased but, both in absolute and percentage values, Venezuela's importance as a supplier of petroleum and gas has diminished. Whereas Venezuela accounted for almost two-fifths of Brazil's total imports of petroleum and petroleum products

in 1964, in 1973 it accounted for only 7 percent of the total. Brazilian imports from the LAFTA countries include copper, lead, zinc, and other minerals, chemicals, fertilizers, iron and steel, and machinery and equipment.

Brazil's trade with Other Latin American countries (i.e., the non-LAFTA republics) remains very small. Most of the apparent increase in both exports and imports shown in Table 9 during 1973-74 consists of transactions through Panama's free trade zone at Colon and is not properly trade with Panama, but rather with non-hemisphere countries, probably chiefly Japan.

Brazil's trade with Other Western Hemisphere countries (i.e., the former colonial possessions) used be largely a one-way traffic in petroleum imports from the Netherlands Antilles (NWI) and Trinidad-Tobago, producing a net deficit of nearly \$20 million in 1964. By 1973-74, however, Brazil had increased its exports to these areas significantly, reducing the trade imbalance, particularly as a proportion of exports. Most of the commerce was with the NWI and Trinidad-Tobago, involving the importation of petroleum products (\$23.4 million from the NWI and \$12.8 million from Trinidad in 1973) and the exportation chiefly of textiles and clothing to the NWI and a variety of consumers goods to Trinidad.

Western Europe. The trade with Western Europe showed the largest export surplus of any area in Brazil's 1964 trade, helping significantly to produce a surplus in total trade. More

recently, the commerce has veered from an export surplus in 1970 to import deficits in 1971 and 1972, and back again to a sizeable export surplus in 1973. The heavy influx of imports in 1974, however, returned the balance to a deficit position, with imports exceeding exports by 25 percent.

Brazil has sought without much success to win improved treatment for its exports, especially semi-manufactures and manufactures, in European markets. Europe, though a major source of direct and portfolio investment funds for Brazil, continues to buy primarily Brazil's raw materials such as coffee, soybeans, iron ore, and cocoa.

Trade with the EEC countries alone followed the same pattern as trade for all of Western Europe - a comfortable surplus equal to 44 percent of export values in 1964, a surplus of 16 percent in 1973, and a deficit amounting to 30 percent of export values in 1974. Trade with the Netherlands, Brazil's principal export customer among the EEC countries, showed an export surplus in 1964 and through the 1970's which amounted to 148 percent of export value in 1974. West Germany is by far Brazil's principal supplier in the EEC; trade with that country showed an export surplus in 1964, but a progressively increasing import balance through the 1970's, reaching a peak of 179 percent of export value in 1974.

Among the Western European nations outside of the EEC, Spain is the principal customer for Brazilian exports. Trade with that country has shown an increasing export surplus, year by year, amounting in 1973 and 1974 to about 60 percent of the value of export trade.

Japan. The trade with Japan was on a deficit basis in 1964 and continued so through the 1970's. The deficit balance, which amount to 103 percent of the value of exports to Japan in 1972, was reduced to 20 percent in 1973 by a surge of 136 percent in the value of Brazil's exports to Japan while imports from that country rose by 50 percent. However, in 1974 imports from Japan practically doubled while Brazilian exports grew by only 31 percent, with the result that the imbalance in the trade reached 96 percent of the value of exports to Japan.

Brazil's principal exports to Japan include industrial input materials and foodstuffs such as raw cotton, sugar, coffee, soybeans, horsemeat, silk yarn, and a rapidly increasing quantity of iron ore, valued at \$159 million in 1974; soybeans and cotton were especially important in 1973 and sugar in 1974. The value of the principal advanced manufacture item among exports to Japan--computers, parts, and accessories--increased from \$2 million in 1972 to \$12 million in 1973 and \$28 million in 1974. Machinery items and iron and steel mill products accounted for two-thirds of Brazil's imports from Japan in 1972 and 1973.

Oil States Outside the Western Hemisphere. Saudi Arabia and Iraq now are the princial suppliers of petroleum to Brazil, as contrasted with the situation in 1964 when Venezuela was the principal supplier. Nigeria has been the source of substantial amounts of crude, but the trade was sharply reduced in 1973 and dropped off in 1974.

Brazil has made vigorous efforts to export to the Oil States in order to reduce as much as possible of its large import deficit with these countries. In 1973, commodities sold to these oil exporters equaled 19 percent of the value of Brazil's imports from them. Rather remarkably, Brazil was able to triple its exports to these countries in 1974 when the value of its imports from the Oil States tripled, thus maintaining the same ratio (19 percent) of exports to imports. The deficit in trade with this area of course increased sharply as a result of the jump in petroleum prices in November 1973, rising from \$670 million in 1973 to more than \$2 billion on an f.o.b. basis in 1974.

The advent of this large deficit, which has continued to grow in 1975 and is expected to reach over \$3 billion in 1976, has had a major effect on Brazil's overall trade and economic policies. Brazil has become all the more sensitive to its deficits with other trading partners, especially the US and Western Europe. Energy development--including nuclear power generation--is also a major objective and the motivation for late 1975 reversal of policies that formerly excluded foreign oil companies from exploring for petroleum.

Saudi Arabia purchased a wide variety of manufactured goods from Brazil in 1974, but exports to Iraq consisted almost entirely of sugar, rice, and soybeans. A Trade Mission from Iraq visited Brazil in May 1975 and reportedly expressed the

willingness of the Iraq Government to exchange oil for an increasing number of Brazilian products. Iron ore, bauxite, and selected manufactured products were mentioned in the press as additional commodities to be exported to Iraq; the country also was reported to be interested in acquiring technological know-how on automobile, steel, sugar refining, and heavy industries by having Brazilian companies operate in Iraq.

Communist Countries. Brazil has customarily run large export surpluses in its trade with the Communist countries. Part of the trade consists of large--often emergency--purchases especially by the USSR and PRC of sugar or other foodstuffs. Payment for such imports from Brazil appears to be in cash. Part of the trade is conducted under bilateral trade agreements, which call for eventual settlement in convertible currency. Brazil has not found much to buy in Communist countries, even on credit terms, though deliveries of Soviet power plant equipment and renewed exports of Soviet petroleum in 1975 promise to correct the imbalance somewhat. Commerce with the Communist countries has enabled Brazil to dispose of certain products such as sisal and hides and skins which do not find strong markets elsewhere and, more recently, has provided a good market for the country's increased surplus of sugar.

Brazil's trade with the U.S.S.R. showed a favorable balance of \$134 million in 1973 (91 percent of export value) and \$80 million in 1974 (59 percent of export value). Sugar accounted for more than half of total exports to the USSR in 1973,

and coffee, woolen yarn, and cocoa and cocoa products were the principal other commodities in the trade. Cocoa and cocoa products represented 47 percent of exports to the USSR in 1974, followed by corn, coffee, woolen yarn, and sisal. Imports from the U.S.S.R. in 1964 consisted very largely of petroleum and petroleum products, but in 1973 the principal item was machinery, followed by aluminum and cement.

Brazil's imports from Mainland China so far are minimal; exports did not become significant until 1972, were approximately the same value in 1972 and 1973, and dropped sharply in 1974. Exports from Brazil to China in 1973 consisted almost entirely of sugar and raw cotton; however, exports in 1974 were composed principally of sisal, pig iron, and raw cotton, and an increasing quantity of iron ore and synthetic fibers.

Other Africa, Asia and Oceania. Brazil has a minor level of commerce with Africa--excluding its oil exporters (Algeria, Libya and Nigeria), with the non-oil Middle East, Oceania, and Asia excluding China and Japan. The total trade with these many and diverse countries rose from roughly 2 percent of total exports and imports in 1964 to 4 percent in 1974. The general tendency to run an export surplus in the commerce shifted in 1974 to a \$15 million deficit. Brazilian efforts in the early 1970s to boost trade relations with Sub-Saharan Africa yielded few gains, as that area, which accounted for less than 1 percent of trade in 1964, still represented only 1.3 percent in 1974.

V. DIRECTION OF TRADE

Observation of Brazilian statistics over a period of years indicates the increasing number of trading partners represented and the growing dispersion of the value of Brazil's foreign trade, particularly on the export side, and this conclusion is borne out by a calculation of Gini coefficients for exports and imports, shown in the following table.

Brazil: Gini Coefficients of Geographic Concentration*
of Exports and Imports, Selected Years, 1913-1973

	Exports	Imports
1913	40.9	37.1
1925	49.0	38.9
1929	46.2	40.3
1932	49.0	38.7
1937	42.6	38.7
1938	41.8	39.0
1954	41.5	37.4
1968	39.5	36.9
1973	26.1	34.3

Note: The lower the coefficient, the greater is the degree of diversification of trade partners.

* Exports to or imports from another country are expressed as percentages of the export or import value and an index then is obtained by calculating the sum of the squares of these percentages and extracting the square root of this sum. See: Albert O. Hirschman, National Power and the Structure of Foreign Trade, Berkeley, 1945 for the data 1913-38. Hirschman used a measure of dispersion proposed by Corrado Gini, "Sulla misura della concentrazione e a sulla variabilita dei caratteri," Atti del R. Istituto Veneto di Scienze, Lettere e Arti, Vol. LXXIV, Part II, 1913-14. For 1954 figures see: Michael Michaely, "Concentration of Exports and Imports," Economic Journal, LXVIII, December 1968, pp. 722-736. See also: Richard Rosecrance and Arthur Stein, "Interdependence: Myth or Reality?", World Politics, Vol. XXVI, No. 1, October 1973, pp. 1-27. The coefficients for 1968 included in the table in the present study were calculated on the basis of the percentages of increase between 1954 and 1968 which were stated by Rosecrance and Stein.

Exports showed the highest rate of market concentration in 1925 and 1932 when Brazil's dependence on coffee exports to the United States dominated the country's export trade situation. There was little change between the figures for 1938 and 1954, indicating the continuing high degree of reliance on the US coffee market. However, the coefficient for 1968 showed a decrease in market concentration, marking Brazil's gradually increasing ability to export a variety of goods to a variety of markets. By 1973, there was a marked decrease in the Gini coefficient, indicating a decided proliferation of markets for Brazil's export trade. (The U.S., Brazil's traditionally principal market, accounted for only 18 percent of the trade in 1973, an unusually low level, as may be seen from table No. 10.)

On the import side, Brazil has achieved less diversification of sources of supply, as the coefficient shows. There was a decline in each of the years calculated since 1938, including a drop of nearly 8 percent in 1968-73. Nonetheless, the shift over time has been slow and very gradual, reflecting the country's continued reliance on a relatively few countries--notably the US, Western Europe, Japan and neighboring Latin American countries for its import needs. After 1973, the coefficient may drop further because Middle Eastern oil suppliers are assuming a larger role in Brazil's overall import situation.

Export Markets

Among the most striking changes in the directional trend of Brazil's export trade, 1964-73, was the decline in the share of the United States from 33 percent in 1964 to approximately 25 percent in 1970 through 1972, and to only 18 percent in 1973: the proportion increased somewhat in 1974, to nearly 22 percent. (See table No. 10).

The primary reason for the drop in the U.S. share of Brazil's exports over the 11 years is the radical change during this period in the relative position of coffee beans in the country's total export trade. The U.S. is by far Brazil's principal customer for coffee beans, and in 1964, when this commodity accounted for more than one-half of Brazil's total exports, coffee sales to the U.S. represented 23 percent of the global value of exports. This contrasts sharply with the situation in 1973, when, in relation to the total value of exports, shipments of coffee accounted for only 20 percent and sales to the U.S. for but 5 percent. In 1974, when coffee beans represented only 11 percent of the value of exports, sales of coffee to the U.S. accounted for only 2 1/2 percent of global exports. (For a detailed discussion of the composition of Brazil's exports to the U.S., see the section, "U.S. Trade with Brazil.") The principal reason that the U.S. percentage share of Brazil's export trade rose in 1974 compared with 1973 is that shipments of sugar to the U.S. showed an increase of 417 percent and accounted for 23 percent of total sales to the U.S. compared with 7 percent in 1973.

The U.S. remains Brazil's principal single-country market and during 1964-73 the value of U.S. purchases increased by 137 percent, with an additional 55 percent in 1974. At the same time, however, the overall value of Brazil's export trade rose by 334 percent in 1964-73 and by 28 percent in 1974, as the country greatly diversified its markets and found new outlets in areas where the trade previously had been nonexistent or insignificant.

Decreases in their relative share of the export trade were shown by Canada (1.5 percent in 1964 to 1.1 percent in 1973 and 1.2 percent in 1974) and by Eastern Europe (6 percent in 1964 to 5 percent in 1973 and 1974). The share of the countries of Western Europe rose from 43 percent in 1964 to 48 percent in 1973, but dropped to 40 percent in 1974. The countries of the European Economic Community alone accounted for 33 percent of Brazil's exports in 1964, for proportions ranging from 33 to 37 percent in 1970-73, and for nearly 31 percent in 1974. The European Free Trade Association countries took 6 percent of exports in 1964, 5 percent in 1973, and 4 percent in 1974, while the other countries of Western Europe accounted for 4 percent of the total in 1964, 6 percent in 1973, and 5 percent in 1974.

Among the EEC countries, the Netherlands made the most striking advance in 1973 to become Brazil's principal European market, accounting for 10 percent of total exports. (A part of this trade undoubtedly is destined for transshipment.) West Germany

(9 percent), Italy (6 percent), and the United Kingdom (5 percent) were next in importance in 1973. The Netherlands remained the first-ranking European market in 1974, accounting for nearly 8 percent of global value, followed closely by West Germany and then by the U.K. and Italy. In 1964, at the beginning of the period under review, the principal Western European markets had been West Germany (9 percent), the Netherlands (6 percent), Italy (5 percent), and the U.K. (4 percent).

Shipments to Spain, the next ranking market in Europe, made outstanding growth from \$13 million in 1964 (representing less than 1 percent of the export total) to \$212 million (over 3 percent) in 1973 and \$302 million (nearly 4 percent) in 1974.

Among the EFTA countries, Portugal grew significantly as a market for Brazilian goods. It accounted for \$5 million in value and about one-third of 1 percent of total exports from Brazil in 1964, \$71 million and over 1 percent of the total in 1973, and \$72 million and nearly 1 percent in 1974.

The value of exports to the LAFTA countries of Latin America increased by more than 300 percent, from \$138 million in 1964 to \$557 million in 1973, and jumped an additional 65 percent in 1974. The share of LAFTA in Brazil's export trade fluctuated within a relatively narrow range during the 11-year period under review and was 10 percent in 1964 and 9 percent in 1973, but increased to nearly 12 percent in 1974.

Argentina remained the single most important market in the area and the value of its purchases rose from \$91 million in 1964 to \$198 million in 1973, and to \$302 million in 1974; the relative share of the Argentine trade declined after 1971-- it was 6 percent in 1964 and 7 percent in 1971, 3 percent in 1973, and 4 percent in 1972 and 1974.

As may be seen in the following tabulation, exports to the other LAFTA countries except Uruguay and Chile experienced an impressive growth in relative value in 1964-73; shipments to Bolivia, Ecuador, Peru, and Paraguay showed the most notable percentage increases followed by those to Venezuela, Colombia, and Mexico. In 1974 the trade showed especially large increases for Chile (166 percent), Bolivia (120 percent), and Uruguay, Paraguay, and Mexico (62 to 74 percent).

Exports from Brazil to the LAFTA Countries, Value and Relative Percentages, 1964, 1973, and 1974
(millions of U.S. dollars)

	1964		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Argentina	90.9	65.7	198.3	35.6	301.7	32.9
Bolivia	.9	0.6	37.4	6.7	82.4	9.0
Chile	11.3	8.2	34.5	6.2	91.8	10.0
Colombia	2.0	1.4	19.1	3.4	28.4	3.1
Ecuador	.4	0.3	12.8	2.3	17.8	1.9
Mexico	6.3	4.6	50.3	9.0	87.4	9.5
Paraguay	2.5	1.8	60.6	10.9	98.0	10.7
Peru	1.3	0.9	40.5	7.3	52.7	5.7
Uruguay	18.2	13.1	40.9	7.3	71.0	7.7
Venezuela	4.7	3.4	63.1	11.3	86.5	9.4
TOTAL	138.4	100.0	557.4	100.0	917.7	100.0

Source: Table 10.

The relative importance of the individual LAFTA countries as markets for Brazilian exports changed radically during 1964-74. Argentina, the principal purchaser, accounted for 66 percent of LAFTA buying from Brazil in 1964, but for only half that proportion (33 percent) in 1974. The five countries ranking next in importance as markets were bunched in 1974--Paraguay, Chile, Mexico, Venezuela, and Bolivia each accounted for from 9 to 11 percent of Brazil's exports to LAFTA. Bolivia showed the greatest increase in market share during the period under review, going from 0.6 percent of the LAFTA total in 1964 to 9 percent in 1974. Uruguay, the second ranking market in 1964 (13 percent of exports to LAFTA) dropped to seventh place in 1974 and accounted for 3 percent of the LAFTA market.

The other countries in Latin America and the Caribbean increased their shares of Brazil's exports in 1964-73 from 0.1 percent to over 1.0 percent and took an even larger 1.6 percent of total trade in 1974. In this group of countries, the principal markets in 1974 were Panama, the Bahamas, the Netherlands Antilles, Jamaica, Trinidad-Tobago, the Dominican Republic, Costa Rica, and Guatemala. Brazilian crude petroleum not suitable for processing in Brazilian refineries accounted for 88 percent of exports to the Bahamas, but exports to the other countries were composed principally of a wide variety of manufactured goods.

Brazil's efforts to develop new markets have resulted in a striking change in the proportionate share of its exports taken by the countries of Asia, Africa, and Oceania (the special emphasis on export sales to the oil suppliers of the Middle East was noted above).

The tabulation below summarizes data on the share of exports taken by Asia, Africa, and Oceania at the beginning and end of the period under review. These areas accounted for only 5 percent of Brazil's total export trade in 1964, of which 2 percent was attributable to Japan. This was in sharp contrast to the trade pattern in 1973 and 1974, when they accounted for 17 and 18 percent of exports in the respective years.

Percentage Shares of Asia, Africa, and Oceanic in
Brazil's Export Trade, 1964, 1973, and 1974

	<u>1964</u>	<u>1973</u>	<u>1974</u>
Middle East	.1	2.8	4.1
North Africa	1.0	1.5	3.7
Sub-Saharan Africa	.7	1.5	1.6
Mainland China	neg.	1.1	0.2
Japan	2.0	6.9	7.0
Other Asia and Oceanic	<u>1.6</u>	<u>3.2</u>	<u>1.6</u>
Total	<u>5.4</u>	<u>17.0</u>	<u>18.2</u>

In 1964, the only markets of substantial size in Asia, Africa, or Oceania were Japan, Lebanon, Algeria, the Union of South Africa, and Hong Kong. Markets in these regions taking over \$10 million in Brazilian exports in 1973, in addition to the countries named above, were Mainland China, Taiwan, Iran, Iraq, Israel, Sudan, Morocco, Sri Lanka, Australia, Mozambique, South Vietnam, Tunisia, Syria, and Malaysia and Singapore. Shifts in world trade conditions for such Brazilian agricultural commodities as raw cotton, sugar, and soybeans resulted in some subtractions from the list in 1974, and the addition of Egypt and Senegal was due principally to purchases of sugar. However, the inclusion of the Philippines and Nigeria in 1974 was the result of increased exports of manufactured goods. The growth of commerce with Japan--a change also reflected in Brazil's import pattern--marks an expanding degree of complementarity between the two countries' economies. Brazilian iron ore and sugar accounted for nearly 70 percent of exports to Japan in 1974.

Sources of Imports^{1/}

The directional changes in Brazil's import trade in general since 1964 have not been as pronounced as in the case of the export trade, although some important changes have occurred.

^{1/} Brazilian statistics on the import trade in 1974 by country of origin are available at this writing only on an f.o.b. basis. The statistics for preceding years are on a c.i.f. basis. The 1974 value figures therefore are understated by approximately 12 percent.

As its imports rose during the period, Brazil became an increasingly attractive market for all its traditional and many new suppliers, helping to expand the country's overall significance in the world economy generally. Because of the importance of petroleum among Brazil's imports, however, and the consequent heavy increase in the total value of purchases from Middle Eastern oil suppliers in late 1973 and in 1974, the relative shares of Brazil's other sources of supply in the global value of Brazilian trade generally were diminished.

The United States remains the principal supplier and the value of its sales grew from \$436 million in 1964 to \$3.1 billion in 1974 (f.o.b. basis). Its relative share of the trade declined, nevertheless, during the decade in the face of competition especially from Europe and Japan, dropping from 35 percent in 1964 to 28 percent in 1972 and 29 percent in 1973, and amounting to 24 percent in 1974 (table No. 11). Imports from Canada rose sharply, from \$15 million (1 percent) in 1964 to \$126 million (2 percent) in 1983 and \$412 million (again, 2 percent) in 1974.

The LAFTA representation in the trade declined by more than one-half, from 21 percent in 1964 to 8 and 9 percent, respectively, in 1972 and 1973, and to 7 percent in 1974. The principal reasons for the decline in the LAFTA share of the import trade area as follows: Venezuela, the primary supplier of petroleum to Brazil in 1964, became less important as Brazil turned to Middle Eastern sources of supply in the later years; the Argentine

wheat trade has become less important in relation to global imports--total imports of wheat accounted for 17 percent of the value of Brazil's imports in 1964 but for only 5 percent in 1973; and the expansion of Brazil's overall import trade during the decade under review encompassed an increased quantity of advanced manufactures, which were supplied from the industrial nations of the world.

Imports from Argentina tripled in value between 1964 and 1973 and gained further in 1974. However, as a percentage of the total, imports from Argentina declined from 9 percent to 5 percent in 1964-73 and slipped further to 3 percent in 1974. Despite an increase of 360 percent in the value of wheat imports from Argentina in 1964-73, the share of this commodity in trade between the countries dropped from 60 percent at the beginning of the decade of 32 percent at the end.

Imports from Bolivia and Paraguay were negligible in 1964 and shipments from Uruguay amounted to only \$2.5 million in value (see the following tabulation). The trade with these countries represented an increased share of Brazil's total imports in 1973, amount to \$21, \$23, and \$17 million, respectively; in 1974 these amounts rose to \$30, \$34, and \$93 million, (f.o.b. basis). The tremendous jump in imports from Uruguay in 1974 is due largely to the shipment of frozen beef valued at more than \$60 million.

Imports into Brazil from the LAFTA Countries, Value
and Relative Percentages, 1964, 1973, and 1974
(millions of U.S. dollars)

	1964		1973		1974	
	Value	Percent of total	Value	Percent of total	Value (f.o.b)	Percent of total
Argentina	116.3	44.7	343.6	56.7	359.7	38.1
Bolivia	.1	insig.	20.7	3.4	30.4	3.2
Chile	24.9	9.6	36.7	6.0	137.5	14.6
Colombia	insig.	insig.	6.4	1.1	16.7	1.8
Ecuador	.1	insig.	3.7	0.6	3.0	0.3
Mexico	10.0	3.8	56.9	9.4	83.8	8.9
Paraguay	.6	0.2	23.1	3.8	34.3	3.6
Peru	13.5	5.2	20.0	3.3	20.7	2.2
Uruguay	2.5	1.0	16.9	2.8	93.0	9.9
Venezuela	<u>92.4</u>	<u>35.5</u>	<u>78.0</u>	<u>12.9</u>	<u>164.6</u>	<u>17.4</u>
TOTAL	260.4	100.0	606.0	100.0	943.7	100.0

Source: Table 11.

The tabulation reflects the increased price of petroleum imported from Venezuela in 1974 and the sharp rise in the value of copper imported from Chile in that year. Imports from the West Coast countries of Colombia and Ecuador increased considerably during the decade--shipments from these countries, which were insignificant at the beginning of the period, reached \$6 and \$4 million, respectively, in 1973 and amounted to \$17 and \$3 million in 1974. Shipments from Peru, which totaled \$14 million in 1964, amounted to \$20 and \$21 million, respectively, in 1973 and 1974. The principal imports from Colombia were cement and anti-tick preparations, from Ecuador, petroleum and Panama hats, and from Peru, zinc.

Considerable change occurred during the 11 years in the relative position of the individual LAFTA countries as exporters to Brazil. The Argentine share of the LAFTA trade, which increased from 45 percent in 1964 to 57 percent in 1973, fell to 38 percent in 1974 principally because of increased copper imports from Chile and large shipments of beef from Uruguay as well as the increased price for Venezuelan petroleum. The share of Mexico in the LAFTA trade more than doubled, from 4 percent in 1964 to 9 percent in 1973 and 1974, and the share of Brazil's neighbors, Bolivia, Paraguay, and Uruguay, rose from 1 percent or less in 1964 to 3, 4, and 3 percent, respectively, in 1973. The proportions for Bolivia and Paraguay remained the same in 1974, but that for Uruguay increased to 10 percent.

The share of the EEC countries in Brazil's import trade rose from 21 percent in 1964 to 29-31 percent in 1970-72, but declined to 28 percent in 1973 and 25 percent in 1974. The share of West Germany increased from 8 percent in 1964 to 14 percent in 1972 and 13 percent in 1973 and 1974. The next most important European supplier, the United Kingdom, increased its share of the trade from nearly 3 percent in 1964 to nearly 5 percent in 1972, but the proportion declined to 4 percent in 1973 to less than 3 percent in 1974.

France and Italy ranked next in importance among European suppliers in 1964; the share of France decreased and that of Italy fluctuated irregularly during the decade. The value of imports from Belgium-Luxembourg has shown a sharply rising trend, from \$15 million in 1964 to \$111 million in 1973 and \$306 million (f.o.b.) in 1974 when the relative share of these imports (2.4 percent) slightly exceeded that for France and was not far below that for Italy or the United Kingdom. Imports from the Netherlands rose from \$15 million in 1964 (1 percent of the trade) to \$166 million (nearly 2.5 percent) in 1973 and \$244 million (nearly 2 percent) in 1974.

The value of imports from the Eastern European countries increased by only 44 percent during the decade (\$69 million to \$99 million), and the relative share of these countries in the trade fell from 5 to 1 percent. Poland, East Germany, and Czechoslovakia generally were the principal suppliers in the group, but in 1974 the U.S.S.R. ranked first (because of shipments

of petroleum), accounting for \$56 million out of a total of \$156 million for the group. The U.S.S.R. had accounted for 40 percent of the bloc's exports to Brazil in 1964, because of shipments of petroleum which, however, had tapered off and then ceased in the intervening years.

Imports, principally of copper but also of zinc, from Zambia and Zaire were the principal factor in raising the percentage of participation of Sub-Saharan Africa in the Brazilian trade in recent years; the value of shipments from the area increased more than a hundred-fold in the decade and represented less than one-tenth of 1 percent of the trade in 1964 compared with 2 percent in 1972, 1 1/2 percent in 1973, and slightly over 1 percent in 1974.

The absolute and relative importance of Japan in Brazil's import trade showed a marked expansion during the decade. Imports from Japan increased from \$34 million in 1964 to \$549 million in 1973, approximately tripling their share of the trade from less than 3 percent to nearly 8 percent in the period. In 1974 they rose to \$1,093.7 million (f.o.b. basis), an increase of more than 100 percent over the 1973 c.i.f. figure, and the proportionate share of the trade increased to 9 percent.

The "oil" states of the Middle East more than doubled their relative share of Brazil's imports between 1964, when their trade, valued at \$62 million, accounted for less than 5 percent of the total, and 1973, when the trade amounted to \$753 million

and represented nearly 11 percent of global imports. In 1974, the total was \$2.0 billion, or 16 percent of the value of Brazil's imports. Saudi Arabia and Iraq have become the principal suppliers of crude petroleum to Brazil and, in 1974, imports from these two countries alone were reported as \$1.8 billion or 14 percent of the total value of imports.

Commodity Imports by Major Suppliers. Brazil's principal import groups, which represented 85-86 percent of the value of the trade in 1964, 1972, and 1973 are shown in table 12, together with the amounts furnished by each of the three principal supplying countries of each commodity in each year.

The U.S. accounted in 1973 for \$1.8 billion or 24 percent of the commodities valued at \$6 billion which are included in the table. If crude petroleum is eliminated, the U.S. percentage rises to 29 percent. The countries now members of the EEC accounted in 1973 for \$847 million or 14 percent of the value of the commodity groups listed (17 percent without petroleum), the other countries of Western Europe for \$394 million or 7 percent (8 percent without petroleum), and Japan for \$222 million or about 4 percent.

In the case of some of the commodity groups listed, the three principal supplying countries accounted for practically all of the trade. In the case of many others, however, a large proportion of the imports came from numerous countries--e.g., petroleum and many of the chemical products and machinery groups.

The U.S. share as one of the three principal suppliers of the commodity groups in the table was not far below its percentage of Brazil's total import trade in 1973--29 percent-- and this relationship was true also for Western Europe other than the EEC--8 percent. However, in the case of the EEC countries and Japan, their share as principal suppliers of the listed group of commodities was only about one-half of their share in total imports--28 percent for the EEC and 8 percent for Japan. These countries therefore ranked among the minor suppliers of many of the commodity groups listed.

VI. U.S. TRADE WITH BRAZIL

U.S. statistics, which are available in detail through 1974, permit a more thorough analysis of trade between the U.S. and Brazil than do the Brazilian data available. The use of U.S. trade data also makes possible an analysis of Brazil's position

in the overall U.S. trade picture.^{1/}

Brazil has been one of the fastest growing U.S. export markets. The average annual rate of growth of U.S. exports to Brazil in 1965-70 and the annual rate in 1971 through 1974 greatly exceeded the growth rate of total U.S. exports during this period. In 1974, the growth rate was 61 percent compared with 38 percent for total US exports (see tabulation below). The growth rate of exports to Brazil also exceeded the rate of growth in US shipments to Mexico and, by a greater margin, to Latin America as a whole until 1974. The high rate of growth shown by U.S. exports to Mexico in 1974--slightly above that for Brazil--plus an increase of 88 percent in exports to oil-rich Venezuela and a general rise in the value of shipments to all the countries in the area, brought about a very high rate of growth for exports to Latin America as a whole (shipments to

^{1/} U.S. export statistics are reported on an f.a.s. basis and import statistics on the basis of U.S. Customs value, which generally represents the value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise to the U.S. Beginning with 1974, U.S. import statistics are available on the basis of f.a.s. and c.i.f. values as well as in the Customs import value, but this change is not retroactive. The U.S. import data in this section, therefore, are solely on a Customs value basis in order to make 1974 data comparable with those for earlier years. It should be noted that the use of the Customs value basis understates the value of U.S. imports from Brazil by about 10 percent in comparison with data on a c.i.f. basis.

Mexico, Brazil, and Venezuela accounted for 67 percent of the Latin American total).

U.S.: Rates of Change in Value of Trade with Specified Areas and Countries, 1965-70 Average and 1971 through 1974
(In percent)

	<u>Average</u> <u>1965-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Exports from U.S.					
Total	9.4	2.1	12.8	43.2	38.0
Latin America	8.5	- .5	14.3	37.8	62.6
Brazil	19.3	15.0	28.7	54.1	61.2
Mexico	9.0	-4.9	22.4	48.2	65.3
Imports into U.S.					
Total	13.3	14.0	21.9	24.4	45.3
Latin America	5.2	2.1	18.3	31.6	74.8
Brazil	5.5	13.8	23.6	25.6	43.4
Mexico	13.6	3.2	29.3	40.2	46.9

Source: 1965-70 average from International Monetary Fund and International Bank for Reconstruction and Development, Direction of Trade, August 1973; 1970-71 through 1972-73 from ibid., March 1974; 1973-74 calculated from data in U.S. Bureau of the Census, Highlights of the U.S. Export and Import Trade, Report FT 990, December 1974.

By contrast, the average annual rate of growth of US imports from Brazil in 1965-70 was much slower, reflecting Brazil's market diversification success. US purchases from Brazil expanded at a rate which was only two-fifths that for total US imports in 1965-70, and in the succeeding years the rate about equalled the overall annual rate of increase in total US imports. The relationship of the rate of growth of US imports from Brazil compared to the rate for imports from Mexico and from all Latin America was a fluctuating one. Except in 1970-71, US imports from Mexico grew at a much faster rate than those from Brazil, though it was only slightly higher in 1974. On the other hand, US imports from Brazil outpaced those from Latin America as a whole until 1972-3, and 1973-4. Especially in 1974 primarily as a result of the rise in petroleum prices and higher commodity prices in general, global imports from Latin America showed a particularly sharp rise of 74.8 percent over 1973 values.

U.S. Exports to Brazil

The increased importance of Brazil as a market for U.S. exports in 1971-74 as compared with 1964 is shown by table 13. (Considering the fact that 1974 was a year of sharply increased prices for many commodities and that Brazilian stockpiling of some commodities was reported, data for 1973 may provide a better indicator of basic changes in the trade since

1964). The total value of U.S. exports increased by 173 percent in the decade 1964-73, rising from \$26 billion to \$71 billion, and in 1974 rose an additional 36 percent to \$97 billion. Exports to Brazil grew over twice as fast in 1964-73, at the rate of 393 percent (from \$386 million to \$2 billion), and by an astonishing 61 percent, to \$3 billion, in 1974, making Brazil the seventh ranking market for the US in the world and representing 3.2 percent of total U.S. exports. This proportion is almost double that of 1964 when it amounted to 1.4 percent of total US shipments. Brazil was surpassed as an export market for the U.S. in 1973, only by Canada, Japan, Mexico, and five countries of industrial Europe--the U.K., West Germany, the Netherlands, France, and Italy. By 1974, Brazil moved to seventh place in the above ranking by becoming a better market for U.S. goods than France or Italy.^{1/} In 1964, by contrast, Brazil was in 15th place, as the countries named for 1973 and also Belgium-Luxembourg, Australia, Venezuela, and India ranked ahead of Brazil as markets for U.S. exports.

^{1/} U.S. exports to Brazil in the first eight months of 1975 were at about the same pace as in 1974, principally because of the efforts of the Brazilian Government in 1975 to restrain imports for balance of payments reasons. In January-August 1975 Brazil accounted for 2.8 percent of the total value of U.S. exports and ranked tenth as an export market, slightly behind France and Italy. The near-tripling of U.S. exports to Iran, as compared with the 1974 months, placed that country seventh among U.S. markets.

U.S. exports to Brazil reflect the country's increasing need for developmental equipment, materials, and supplies. U.S. exports of machinery and transport equipment; scientific, medical, measuring, and controlling apparatus; iron and steel and nonferrous metals; chemicals; and industrial crude materials (such as pulp and waste paper, synthetic fibers and their waste, synthetic rubber, crude fertilizer, sulphur, and metal scrap) accounted in 1964 for 54.5 percent of U.S. exports to Brazil. By 1971-74, however, these categories accounted for 81-88 percent of US shipments. (See the tabulation below). In addition, Brazil buys important quantities of coal (primarily for the metallurgical industry) and lubricating oils. Added together, all these exports groups which accounted for 61 percent of U.S. trade with Brazil in 1964, represented from 85 to over 90 percent of the country's imports from the US in 1971-74, as shown in the following table.

U.S. Exports to Brazil: Percentages of the Trade Represented by
by Principal Groups Comprising Production Materials and Equipment,
1964 and 1971-74

	<u>1964</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Crude materials, inedible, except fuel	3.1	3.7	3.9	3.2	3.8
Chemicals	14.1	17.3	20.8	17.8	22.0
Manufactured goods (general)	6.0	16.3	7.6	11.9	15.8

	<u>1964</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Machinery and transport equipment	28.0	47.1	49.6	43.3	42.3
Miscellaneous manufactured articles	<u>3.3</u>	<u>5.2</u>	<u>5.8</u>	<u>4.8</u>	<u>4.1</u>
Sub-total	54.5	83.6	87.7	81.0	88.0
Mineral fuels, lubricants, etc.	<u>6.6</u>	<u>6.7</u>	<u>5.2</u>	<u>3.5</u>	<u>3.8</u>
TOTAL	61.1	90.3	92.9	84.5	91.8

Source: Table No. 13.

Transport equipment, the largest group of U.S. exports to Brazil was divided in 1974, as follows (percent within the category):

	<u>1964</u>	<u>1974</u>
Aircraft and related parts	47	60
Motor vehicles and tractor parts and accessories	20	15
Railway vehicles and parts	13	9
Ships and floating structures	11	8
Trucks and other motor vehicles	<u>9</u>	<u>8</u>
TOTAL	<u>100</u>	<u>100</u>

Organic chemicals, fertilizers, and synthetic resins have become the most important elements in the chemical groups, accounting for 66 and 69 percent, respectively, of total value in 1973 and 1974, compared with 34 percent in 1964 (see table No. 28).

Wheat is the only important consumer item in the trade. As shown by table 13, the value of wheat shipments varied enormously in the years 1971-74, from a low of \$37 million in 1972 to a high of \$216 million in 1973, depending upon the size of the Brazilian crop and international availabilities, as well as the price level. However in 1971-74, the proportion of U.S. exports to Brazil represented by wheat ranged from 3 to 11 percent, in sharp contrast to 1964 when wheat accounted for 30 percent of the trade. (In the early 1960's wheat and wheat flour exported under the various P.L. 480 programs was an important factor in U.S. shipments of these commodities to Brazil. P.L. 480 exports of wheat and wheat flour to Brazil totaled \$64 million in 1964 and \$73 million in 1965, but thereafter dropped off sharply to \$20 million in 1966, and a range of \$22-\$35 million in 1967-71. No P.L. 480 sales of wheat to Brazil were made after June 30, 1971).

U.S. Imports from Brazil

The reversal of the balance of trade between the U.S. and Brazil in the past decade resulted from the slower rate of growth in U.S. imports from Brazil as compared with U.S. exports

to that country. Imports from Brazil increased in value from \$535 million in 1964 to \$1.2 billion in 1973, a rise of 121 percent, and a further increase of 44 percent occurred in 1974. This contrasts with increases for U.S. exports to Brazil to \$3 billion in 1974, or 393 percent in 1964-73 and 61 percent in 1973-74. In contrast to the absolute and relative growth of U.S. exports to Brazil, U.S. imports from the country--though rising in value--decreased in relative importance to the US, from 3 percent of total US imports in 1964 to 2 percent in 1972 and to 2 percent in 1974.^{1/}

Brazil's relatively higher standing in the US import picture in 1964 than in 1973-74 was the result of the greater relative importance of coffee beans among U.S. imports and Brazil's primacy as a supplier of this commodity in the earlier period. Coffee in 1964 accounted for 6.4 percent of the total value of U.S. imports, but in 1973 for only 2.3 percent and in 1974 for 1.5 percent. Brazil's share of the coffee trade was nearly one-third in 1964 and decreased to less than one-fourth in 1973 and only about one-sixth in 1974, when Colombia displaced Brazil as the most important supplier.^{2/}

Brazil ranked seventh among the world's exporters to the U.S. in 1964, but fell to twelfth in 1973 and thirteenth in 1974 (eleventh in 1973 and ninth in 1974 if the countries exporting crude petroleum to the U.S. are excluded).^{3/}

^{1/} The share of imports from Brazil in U.S. import trade in January-August 1975 was 1.47 percent.

^{2/} Brazil's share of U.S. coffee bean imports in January-June 1975 was back at the 1973 level--nearly one-fourth.

^{3/} In January-August 1975, Brazil's rank as an exporter to the U.S. dropped to seventeenth (tenth if the petroleum importers are excluded).

The decline in the importance of coffee in Brazil's overall trade and in its trade with the U.S. in particular has produced a radical change in the composition of U.S. purchases in the past decade (tables 14 and 15). The value of coffee bean imports from Brazil was about the same at the beginning and end of the period--\$378 million in 1964 and \$370 million in 1973--but the commodity represented 71 percent of total U.S. imports from Brazil in the earlier year and only 31 percent in 1973. Coffee dropped to a value of \$236 million in 1974 and accounted for only 14 percent of U.S. imports from Brazil. The vast majority of U.S. purchases in the 1970's consisted of a wide variety of raw materials and foodstuffs, both in the crude state and processed, and a steadily increasing quantity of advanced manufactured goods. The rise of 41 percent in the value of U.S. imports from Brazil in the "Food and live animals" group in 1974 as compared with 1973 was due principally to shipments of sugar, which increased by 58 percent in quantity and by 318 percent in value. (Brazil ranked second only to the Philippines as a supplier of sugar to the U.S. in 1974).

The "manufactured" classifications and the processed and semi-processed commodities accounted for 44 percent of U.S. imports from Brazil in 1973 and 1974, presenting an extreme contrast with less than 8 percent registered in 1964. Imports from Brazil included in the U.S. classifications, "Chemicals," "Manufactured goods, by chief material," "Machinery and transport

equipment," and "Miscellaneous manufactured articles," in 1973 were valued at \$321 million, or 27 percent of total purchases from Brazil, in sharp contrast to 1964, when these groups accounted for only \$16 million, or 3 percent of the total. In 1974, the value of these classifications increased another 31 percent over 1973, to \$421 million (29 percent of total).

The shares of other important processed and semi-processed goods in 1973 and 1974 were as follows (1964 data in parentheses): soluble coffee, processed meat, fruit and vegetable juices (principally frozen orange juice), and molasses, 10 percent in 1973 and 8 percent in 1974 (1 percent), and carnauba wax, cocoa butter, powder, and cake, raw castor oil, and simply worked wood, 7 percent in 1973 and 6 percent in 1974 (4 percent).

Primary products other than coffee which are important in the trade--sugar, cocoa beans, frozen shrimp and lobsters, Brazil and cashew nuts, tobacco, and mineral ores (principally iron ore)--which represented 16 percent of the 1964 total, rose to 21 percent in 1973, and to a considerably higher 38 percent in 1974 because of the quantity of high-priced sugar in the trade that year.

Many of the commodities important among U.S. imports from Brazil in 1973 and 1974 did not enter into the trade in 1964 or were insignificant in value. Iron and steel mill products, paperboard, shoes, textile fabrics, clothing, wood products, leather and soluble coffee have been among these fast-growing import commodities. In 1973 and 1974 a very sharp rise over the import

levels of 1971 and 1972 occurred in shipments from Brazil of many of these products and of electrical machinery and other machinery groups (including power generating machinery, office equipment, and radio and telecommunications apparatus) and in motor vehicle and tractor parts and accessories.

Trade Problems with the U.S.

The tremendous growth in Brazil's deficit in trade with the U.S., which amounted to \$1.8 billion in 1974, contributed to-- but was not primarily responsible for--Brazil's overall trade deficit of \$6 billion in that year (see table No. 1), in which the value of imports (\$14.2 billion) was 76 percent higher than that of exports (\$8.0 billion). However, the growth in the deficit with the US has served to spur Brazilian Government efforts to promote exports, restrain imports, and pursue the geographical diversification of its trade.

Traditionally, Brazil has not competed with the U.S. in international trade, acting primarily as an exporter of tropical agricultural products which are complementary to U.S. production rather than competitive. Brazil's rapid industrial development in recent years is, however, producing changes in the composition of Brazil's export trade, which are creating problems of competition with U.S. goods in the U.S. market and in the markets of other countries of the world as well.

Brazil is exporting to the U.S. an increasing quantity of import-sensitive manufactures. Brazilian shipments of cotton textiles to the U.S. are subject to quantity limitations; shoes from Brazil were made subject to countervailing duties in 1974; and an investigation was underway in 1975 of Brazilian subsidies which might justify the application of countervailing duties on leather handbags imported into the U.S. Imports into the U.S. from Brazil of items such as telecommunications apparatus and parts, office machinery, power generating machinery, and motor vehicle and tractor parts and accessories are increasing at a rapid pace. Where these exports are not transfers among multinational plants, there is a possibility that US companies facing competition from the Brazilian goods will raise objections to their importation.

In addition to manufactures, Brazil is an actual or potential competitor of the US in certain raw materials. The sharp rise in the production of soybeans in Brazil has made the country the second most important exporter of this commodity in the world, following the U.S. Brazilian production still is only about one-fourth of that of the U.S. However, the U.S. Foreign Agricultural Service pointed out in April 1975^{1/} that Brazil's competitive threat became increasingly apparent in 1974 when U.S. exports of soybeans lagged behind official estimates while

^{1/} "World Oilseed Producers Face a Crucial Year in 1975-76," in U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture, April 21, 1975, pp. 2-4.

Brazil reaped the benefits of the growth in demand in some major markets that formerly had bought from the U.S. Possibilities for a tripling of the Brazilian production of soybeans within 10 years, as predicted by many Brazilians, enhance prospects that this competition will increase in the future.

In the long run, Brazil also may become a heavy exporter of corn, a major U.S. export. The country now is a large producer of this grain but the major part of the output is small scale and non-commercial. Exports are licensed according to availabilities, and they vary widely from year to year. Many problems would need to be overcome for Brazil to produce corn efficiently, on a large-scale basis, and become a major exporter. However, if world demand and prices are propitious, this may occur.

The marketing of coffee, sugar, and cocoa remain of vital importance to Brazil, which favors international producer-consumer agreements for these commodities. The newly cooperative position taken by the U.S. toward such pacts has been welcomed by Brazil.

Protectionism in the U.S. and elsewhere which limits Brazil's markets will be a continuing concern of the country's foreign policy. Brazil can be expected to take a lively interest in the GATT-sponsored multilateral trade negotiations and in discussions of trade problems in U.S. relations which were to begin in late 1975 under the aegis of a newly formed US-Brazilian consultative group established to provide a mechanism for consultations and discussions of mutual bilateral economic problems.

VII. TRADE PROSPECTS

Imports

Brazil's development so far has successfully eliminated the need to import most consumer durables and non-durable goods. At the same time, it has increased Brazil's need for industrial raw and semi-finished materials, such as petroleum, minerals and iron and steel semi-manufactures. Brazil has the capacity in some cases eventually to reduce its dependence on such important imports. Where it does not--petroleum is a probable example--the country will try to find substitutes (as in hydroelectric power supplies) or will be careful in its foreign policies to cultivate friendly relations with supplying nations. Following is a summary of the outlook for domestic production and import demand for some of the major commodities which are presently among the principal items imported into Brazil.

Petroleum. The Brazilian demand for petroleum imports has become the major drain on the country's foreign exchange resources. Beginning with 1961, as domestic refinery capacity increased, the major expenditure has been for imports of crude oil rather than for by-products which, in 1974, accounted for less than 10 percent of the petroleum bill. Imports of petroleum now are supplied principally from the Middle East, especially by Saudi Arabia.

Brazil consumed about 850,000 barrels per day (bpd) of petroleum in 1975 and produced only about 180,000 bpd, or around one-fifth of total requirements. Recent discoveries off the coast of the State of Rio de Janeiro--the so-called Campos basin--have given hope that the volume of domestic production may improve within 2-4 years. The preliminary assessment of the Minister of Mines and Energy of Brazil was that the first structure drilled in the Campos basin may have reserves of 800 million barrels, about equal to Brazil's previously known reserves. Brazil's plan to invite foreign oil companies to explore the newly discovered fields may help to speed the attainment of a greater degree of petroleum self-sufficiency.

The energy consumed in Brazil is provided as follows: petroleum 50 percent, hydraulic power 30 percent, coal 5 percent, and timber, charcoal, and sugar cane bagasse 15 percent.^{1/} In an effort to reduce petroleum imports during 1974, the price of gasoline was more than doubled, and additional price increases have been made in 1975. Alcohol is mixed with gasoline in areas such as Sao Paulo, Rio de Janeiro, and the Northeast, where this byproduct of the sugar industry is available.

Efforts to cut gasoline consumption impinge, however, on the country's commercial and transportation network which developed during times of cheap oil. Approximately 70-75 percent of internal commerce is transported by truck in

^{1/} "Brazil's Energy Sector," July 1974, a report prepared by the American Consulate General, Rio de Janeiro, and transmitted with Airgram A-101, August 12, 1974.

in Brazil, and in many cases such shipments are made from the far north to the far south of the country. To stem further reliance on road transport, the Government is encouraging shipbuilding and plans to promote the coastal transport of goods, a more economic mode of transportation in many cases, at least since the increase in world oil prices.

Large deposits of oil shale exist in southeastern Brazil, and a pilot plant is in operation. In October 1975, President Geisel announced plans to build a commercial plant to produce 51,000 bpd. when completed in 1980, it will be the first commercial-scale shale oil operation in the Western world. Brazil has already embarked on nuclear power development and a nuclear development agreement signed in June 1975 with West Germany is expected to promote such development.

Another arm of Brazilian petroleum policy is Braspetro, the overseas subsidiary of Petrobras, which was established in 1972 to explore for petroleum outside of Brazil and is conducting exploration alone or with private companies in countries such as Madagascar, Iran, Algeria, Egypt, Iraq, Libya, and Colombia. In return for contributions to petroleum development in such countries, Braspetro's agreements usually call for payment in petroleum. In addition, Braspetro has aggressively pursued the development of export markets in oil-producing countries in order to reduce net outlays of foreign exchange. Sales range from broiler chickens to industrial plants and covered nearly 20 percent of total purchases from oil suppliers in the Middle East in 1974.

Coal.^{1/} During 1974 the combined effects of Brazil's ambitious steel expansion program and the world energy crisis created serious shortages of imported coal in the domestic steel industry, requiring the substitution of greater quantities of domestic coal. The international situation has stimulated the production of domestic coking coal, which is high in ash content and is used in a mix with imported coal for steel making.

Imports of metallurgical coal, principally for the steel industry, expanded from 1.0 million tons in 1964 to 1.9 million in 1972, but dropped to 1.6 million in 1974 (the principal supplier is the U.S.). The domestic production of coking coal rose from 0.6 million tons in 1964 to 0.8 million in 1973, and to keep pace with the growth of the steel industry, was slated to double by 1978 through mechanization and the opening of new mines. The Minister of Mines and Energy now hopes to reach this goal by the end of 1975 and to triple production by 1978.

Since an assured supply of coking coal is crucial to the expansion of the steel industry, the Brazilian Government is negotiating long-term purchase contracts and joint venture agreements for production in a number of other countries, including Poland, the U.S., Canada, and Australia. Projections which were made in 1973 of the consumption of metallurgical coal by the steel industry estimated for 1980 a total of 14.3 million tons, of which 11.7 million would be imported.

^{1/} American Consulate General, Rio de Janeiro, Airgram A-28, April 4, 1975, "Coal in Brazil."

Steel.^{1/} Average annual imports of steel mill products into Brazil were 782,000 tons in 1968-72 but reached 1.9 million tons in 1973 and a record 4.4 million in 1974 as a result of the shortfall in domestic production and also speculative stockpiling as world shortages developed and prices rose. The annual growth rate of Brazilian steel production averaged 10 percent in 1969-73, but only 5 percent in 1974, when the production was held down to 7.5 million tons by shortages of imported coking coal. The country has embarked on a program to triple production to 24 million tons by 1980, and steel planners expect to satisfy internal demand by 1978 and make Brazil a net exporter of steel thereafter.

Non-ferrous metals.^{2/} The Brazilian Government in January 1975 announced a 10-year plan for developing the non-ferrous metal industries of the country. The plan is to be executed primarily by private enterprises with the financial backing of a subsidiary of the Brazilian National Economic Development Bank. Imports of the metals included under the plan were valued in 1973 at approximately \$275 million f.o.b., and in 1974 at an estimated \$600 million.

Copper. Brazil has only one important copper mine, and active exploration efforts to locate additional resources have not yet met with success. Apparent metal consumption in

^{1/} American Consulate General, Rio de Janeiro, Airgram A-05, January 22, 1975, "Industrial Outlook Report: Iron and Steel."

^{2/} American Embassy, Brasilia, Airgram A-78, May 20, 1975, "Industrial Outlook Report: Minerals 1974."

1974 was about 200,000 tons, of which 140,000 tons was imported refined copper, 3,500 tons primary production in Brazil, and 56,400 tons secondary production. The Brazilian Government estimates consumption in 1980 at 298,000-350,000 tons.

A new project, Caraiba (in Bahia), is nearing the mining stage and, because the reserves of 45 million tons of ore are considered too small to support an economically viable smelter, discussions are reported to have been held with Chile with a view to importing Chilean concentrates for smelting along with the Caraiba concentrates. Brazil is reported also to have conducted government-to-government discussions during the past year with Peru and Mexico on possible joint ventures for copper in those countries.

Aluminum. Brazil imported 74,440 tons of aluminum in 1973 (when domestic primary production was 111,400 tons and secondary metal output 15,600 tons), and 131,856 tons of aluminum in 1974. The principal foreign sources of supply in 1973 were the U.S., Norway, France, and Canada. The rise in imports should reverse itself by 1980, since Brazil is on the way to becoming a leading producer and exporter of bauxite and aluminum. A number of companies are conducting important exploratory prospecting in the Amazon basin of Brazil, and total Amazon reserves of "economic" ore are estimated to exceed 3 billion tons.

Construction is scheduled to begin in 1975 on the first Amazon bauxite product, which is financed by an international consortium of the Companhia Vale do Rio Doce (CVRD), private

Brazilian capital, ALCAN, Shell, and Spanish, British, Norwegian, and U.S. companies. Production of 1 million tons is scheduled to be shipped to the foreign partners in 1978, 3 million tons in 1979, and 3.35 million tons per year thereafter. The company is studying plans to increase production to 8 million tons annually by the early 1980's. Another huge Amazon project is ALBRAS, a joint venture of the CVRD and the Light Metal Smelters Association of Japan. ALBRAS is to undertake a major alumina-aluminum complex and hydroelectric power project, with 51 percent of the aluminum produced to be sold to Japan. Aluminum output is scheduled at 60,000 tons annually in 1980 and a full rate of 640,000 tons per year by 1985.

Zinc. Brazil produced less than one-third of its primary zinc metal requirements in 1974. Apparently consumption was about 93,000 tons, comprised of 63,652 tons of imported primary zinc products, 30,519 tons of electrolytic zinc from domestic concentrates, and an estimated 5,000 tons of secondary production (foreign suppliers in 1973 were principally Peru, Zambia, Zaire, Mexico, the Netherlands, Belgium-Luxembourg, Canada, and Finland). The Brazilian Government estimates annual consumption at the rate of 156,000 to 198,000 tons by 1980, and the Non-Ferrous Metals Plan projects metal production of 315,000 tons in 1983. Domestic output is estimated to increase to 35,000 tons in 1975, and a number of companies are carrying out exploration programs. If the smelter capacity projected for 1983 is reached, however, supplying the smelters with domestic zinc concentrates is likely to be a problem.

Other non-ferrous metals. Apparent consumption of lead in 1974 was an estimated 90,000 tons, to which imports contributed 20,151 tons of ingots, the concentrates for smelting 17,248 tons of metal, and scrap for secondary production of 7,000 tons. (The principal sources of imports in 1973 were the U.S. and Mexico). Unless new reserves are discovered and exploited, the shortfall in domestic output will increase rapidly, as the Government estimates annual consumption by 1980 of 113,000-144,000 tons. The Non-Ferrous Metal Plan anticipates smelting capacity of 238,000 tons in 1983.

Brazil has substantial reserves of cassiterite in remote areas of the country, but is a net importer of tin. Production of cassiterite concentrate in 1973 reportedly amounted to 5,444 tons and imports totaled a closely equivalent amount of 5,553 tons (principally from Bolivia and Singapore), plus 11 tons of ingots, mainly from the U.S. Brazilian smelters produced, from domestic and imported concentrate, 3,815 tons of ingots in 1973 and an estimated 6,803 tons in 1974. In addition to producing for the domestic market, the smelters export limited quantities of tin, amounting to 1,215 tons in 1973 and 2,653 tons in 1974. The major share of exports went to the U.S., with Argentina in second place. Brazil's net import bill for tin in 1973 was \$11.1 million, according to Embassy reports.

Geologists estimate known cassiterite resources at about 300,000 tons, which places Brazil among the nations with potentially substantial resources, and extensive undiscovered resources possibly exist. However, it is not clear when Brazil will become

a net exporter of tin. The Government in 1971 outlawed cassiterite production by individual prospectors in the Rondonia placer deposits, the principal producing area, and decreed that only mechanized companies could operate in the district. Production is rising gradually because of the resultant mechanization and also due to a new price structure instituted in 1973 and by the improvement of roads in western Brazil.

Nickel imports into Brazil in 1974 amounted to 5,512 tons of metal, indicating consumption of about 7,100 tons. Nickel cathodes imported into Brazil in 1973 came principally from the U.S. and the Netherlands. The Government estimates consumption of about 8,400 tons in 1980, by which time three nickel laterite projects in Minas Gerais and one in Piaui are scheduled to come into production. Brazil is expected to become a net exporter of nickel within the next 5 years and, if the projects now under way and under evaluation are carried out, annual exports could exceed 40,000 tons by 1980.

Fertilizers. Brazil does not yet produce potassic fertilizers and at present imports approximately 75 percent of the nitrogenous fertilizers and the greater part of the phosphatic fertilizers consumed in the country.^{1/} The Government's goal is self-sufficiency in fertilizer production by the end of the decade.

1/ Banco Central do Brasil, Relatorio Anual 1974, Boletim, March 1975.

Since 1967 the Brazilian market for fertilizers has been growing at a rapid rate, stimulated by measures designed to increase agricultural productivity and promote exports. The average tonnage of fertilizers imported in 1968-72 was 1.8 million, and this increased to 2.5 million in 1973 and to 3.2 million in 1974, when stockpiling is claimed to have occurred. The sharp rise in the price of imported fertilizers is likely to promote greater efficiency in their use--the price per ton of imports increased by 56 percent in 1973 in comparison with the 1968-72 average, and the price in 1974 was 127 percent above that in 1973.

The Government's Fertilizer Plan, which was announced in late 1974, indicates apparent consumption in 1973 at 1.7 million tons of nutrient and estimates demand in 1980 at 4 million tons (1.4 million nitrogen, 1.6 million phosphate, and 1 million potash), all to be supplied from domestic production. Prospects appear fairly good that these goals can be attained.^{1/}

Pulp and paper.^{2/} The Brazilian production and consumption of both cellulose and paper approximately doubled in 1967-73. Import dependence still is estimated at 20 percent for paper, but in 1973 exports of cellulose exceeded imports for the first

^{1/} American Embassy, Brasilia, Airgram A-78, May 20, 1975, "Industrial Outlook Report, Minerals 1974."

^{2/} American Consulate General, Rio de Janeiro, Airgram A-29, March 31, 1975, "Brazilian Pulp and Paper Industry: A Review," and "Brazil Sets Paper Production Program" in U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture, July 14, 1975, p. 16.

time. (Exports are principally from the Borregaard project, to Norway; this Norwegian firm recently sold control of its factory to Brazilian interests).

The Brazilian Government goals are to increase the production of paper from 1.6 million tons in 1973 to 3.7 million in 1980 and the output of cellulose from 1.0 million tons in 1973 to 4.2 million tons in 1980, with 20-year goals of 6.3 million tons of paper and 9 million tons of cellulose.

Foreign investment in paper and cellulose production is significant, and foreign interest is increasing in view of Brazil's enormous timber potential and the depletion of Northern Hemisphere reserves. The Jari Enterprises in the Amazon, associated with the American financier Daniel Ludwig, involves the production of pulp and paper and a project in Minas Gerais, controlled by the Companhia Vale do Rio Doce and including Japanese capital, envisages the exportation of chips and cellulose.

Capital shortages within Brazil and hesitation by foreign firms to commit funds under present international economic conditions may result in some slippage in the achievement of the 1980 goals. However, over the longer run Brazil's resources are likely to make it one of the world's largest exporters of pulp, paper, and related products.

Wheat. Domestic production has shown a gradual increase, with year to year variations, from approximately half a million tons in the mid-1960's to three-quarters of a million by the late 1960's and to 1.5-2.0 million tons in recent years.

Production has been stimulated by subsidized prices to growers, the ready availability of credit for mechanization, fertilizers, lime, and improved seeds, and the introduction of new wheat varieties better suited to the climate. Another factor encouraging increased wheat production has been the use of the same acreage for soybean production in the summer, thus allowing more profitable use of the land. The severe frosts of July 1975 in Parana may discourage the replanting of coffee trees in the area and result in the use of some of that land for wheat and soybeans.

The Government's goal is to expand the production of wheat to 2.2 million tons by 1976 and eventually to attain self-sufficiency. Imports, which averaged 2.0 million tons in 1968-72, amounted to 2.9 million tons in 1973 (following a Brazilian crop failure) and to 2.4 million tons in 1974. Projections of the OAS^{1/} indicate steadily decreasing imports of wheat in the future, to reach in 1980 less than 40 percent of the 1974 level.

Exports

Agricultural products. The tremendous increase in the Brazilian production and exportation of sugar and soybeans in recent years bears witness to the dynamism of the country's agricultural sector. An effective farm price policy which was

^{1/} OAS, Inter-American Economic and Social Council, The Economic and Social Development of Brazil: Characteristics, Policies, and Prospects (OEA/SER.H/XIV, CEPCIES/48, 22 April 1975), p. 266.

adopted in 1967 provides producers with profitable returns; technical and credit support, the improvement of storage facilities and transportation, and the development of the marketing system also have been important factors in the expansion of agricultural production.

Exports of agricultural products from Brazil in the short run will depend upon such obvious factors as the weather in the crop growing regions and international prices and demand. In the long run, however, Brazil as a country with vast areas of underdeveloped tillable land has an enormous potential for increased agricultural exports. Worldwide concern over future food resources focuses attention on a country such as Brazil with its impressive prospects for increased production.

Long run increases are likely for exports of beef, citrus fruit, corn, rice, and possibly cotton, in addition to soybeans and sugar. There follows a discussion of the "Big Three" among Brazil's present agricultural exports--coffee, soybeans, and sugar.

Coffee. The immediate outlook for coffee production in Brazil was greatly altered by the heavy frosts on July 16-18, 1975. The frosts were the worst since 1918 and 1942, when the north of Parana, now the principal coffee growing State, still was uncultivated. The Brazilian Coffee Institute (IBC) reported that nearly three-quarters of the country's approximately 2 billion trees were adversely affected by the frost, which harmed 100 percent of trees in Parana, 66 percent of those in Sao Paulo, 80 percent of those in Mato Grosso, and 10 percent of those

in southern Minas Gerais. A program known as the plan to restore and reinvigorate coffee production had been under way in Brazil with the objective of raising annual production from about 20-22 million bags to about 28-30 million by planting 600 million new trees and increasing yields by improved management. Most of the newly planted trees in Parana were killed by the frost.

The IBC and the National Monetary Council on August 8, 1975, announced a program to provide credit for farmers in the affected areas at 7 percent for large landholdings and without interest for farms with less than 10,000 trees. Credit would be granted on an equal basis whether a farmer wished to continue growing coffee or switch to other crops.

At least two lighter frosts have hit coffee growing areas in southern Brazil in the past 6 years, and it is possible that the recent disastrous frosts may bring about a trend toward the production of such alternative crops as soybeans, wheat, and possibly corn instead of a replacement of the coffee trees.

The 1975-76 (present) crop, which had been harvested before the frosts, is estimated as 18-21 million bags. Next year's 1976-77 crop, which had been estimated at 24-28 million bags, now is estimated on a preliminary basis as roughly 10-14 million bags. Stocks from earlier crops are reported officially as 21 million bags.

The sharp drop in Brazil's anticipated supply of coffee undoubtedly will result in higher coffee prices in the short run; the IBC in early August 1975 raised its basic price from 50 cents (U.S.) per pound to 80 cents and dropped the policy of granting substantial discounts to large purchasers. The country's carryover stocks and the 1975-76 crop are sufficient to continue its dominant position in the coffee export market.

Although coffee is expected to continue as a major export product of Brazil, over the long run it is likely to account for a reduced share of the value of the country's exports in comparison with the 1972 and 1973 experience of 25 and 20 percent, respectively. With the increasing diversification of agricultural exports, the prospects for increased mineral exports, and the growing importance of exports of industrialized products, the "unusual" proportion of 11 percent of the value of Brazil's exports which was registered by coffee in 1974 may be typical of the years around 1980.

Soybeans.^{1/} The phenomenal growth in the cultivation of soybeans in Brazil brought production from 1.5 million tons in 1970 to an estimated 10 million tons in 1975. The 1975 crop was accounted for by increases of 22 percent in area and 8 percent in yield in comparison with 1974; the yield, in bushels per acre, was 24.5 in 1975 and is expected to reach 26 in 1980,

^{1/} "Oil and Meal Output Up in Key South American Producers," in U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture, July 14, 1975, pp. 2-4.

compared with 26-28 in the U.S. The Brazilian export goal for 1975 is 5 million tons of the beans, at least 3 million tons of meal, and about 200,000 tons of oil.

The incentive to plant additional acreage to soybeans is contingent upon international prices and demand, and the U.S. Foreign Agricultural Service believes that prospects for expansion in the near term seem less buoyant than in the recent past. However, a crop of 15 million tons by 1980 is possible, and many Brazilians forecast that by 1985 the figure could reach 30 million tons. Soybeans are grown principally in Rio Grande do Sul and in Parana, which is likely to become of increasing importance (the recent frost may accelerate the production of wheat and soybeans as an alternative to coffee in Parana). Sao Paulo also is a producing State, and expansion is beginning in Minas Gerais, Mato Grosso, and Goias.

Sugar. Brazil has become one of the world's largest producers of sugar and is second only to Cuba as the world's largest sugar exporter. Production in 1974 totaled nearly 7 million tons; the 1975 output was forecast as 7.7 million tons, but the frosts of July 1975 adversely affected the growing cane in the south-central States of Parana, Sao Paulo, Mato Grosso, and Minas Gerais. The Government's goal is for an output of 10 million tons in 1980, under a modernization program including the use of improved varieties of cane and the consolidation and reequipment of sugar mills. The Northeast is a

traditional producer of sugar, but much of the terrain is not suited to mechanization and the economic use of fertilizer. The land used for cane in south-central Brazil, however, is suitable for the use of improved technology. The Amazon region has prospects of becoming also an important producing area.

Exports of sugar have shown a rapid growth from an annual average of 1.4 million tons in 1968-72 to 2.8 million tons in 1973; shipments in 1974 fell to 2.3 million tons because of adverse climatic conditions in sections of the producing regions and an increased domestic consumption of sugar. The almost tripled average price of sugar exports in 1974, however, brought about a more than doubling in the value of exports, from \$553 million in 1973 to \$1.3 billion in 1974.

Although the U.S. market for the commodity remains of great importance to Brazil, the U.S. share of Brazil's sugar exports declined sharply from 44 percent of average annual shipments in 1968-72 to 14 percent in 1973 though they rose to 29 percent in 1974. The USSR and Mainland China were among the chief markets for Brazilian sugar in 1973; however, the USSR was not a market in 1974 and China took only a small quantity that year.

Minerals.^{1/} Ambitious plans are under way to greatly increase shipments abroad of iron ore, Brazil's principal mineral

^{1/} American Embassy, Brasilia, Airgram A-78, May 20, 1975, "Industrial Outlook Report: Minerals 1974."

export and one which increased from 10 million tons in 1964 to 59 million in 1974. Exports in 1975 may reach 76 million tons and by 1980 amount to as much as 110-120 million tons. Brazil already ranks second only to Australia as an exporter of iron ore, and the Government-controlled Companhia Vale do Rio Doce (CVRD) is the world's largest iron ore shipper. The CVRD accounted for 78 percent of the export tonnage in 1974, mostly on the basis of long-term contracts; its largest single customers was Japan (35 percent), followed by West Germany (14 percent) and the U.S. (13 percent). Barter transactions with Poland, East Germany, and Romania were reported in 1974 and are likely in the future, especially with Eastern European and Arab nations.

The largest iron ore development in view is the Carajas project, in which the CVRD (51 percent) and U.S. Steel (49 percent) are shareholders in a company formed to exploit an estimated 16 billion ton deposit of high grade ore which is located in the Amazon State of Para. Initial production of 12 million tons is projected for 1979, with output increasing to 50 million tons in 1985. The major share of the production is expected to be shipped to Japanese, Spanish, and British groups holding non-voting equity shares in the project.

Brazil's present standing as a source of minerals is based primarily on the impressive growth of the production and export of iron ore. All mineral products combined represented only one-ninth of total exports in 1974, and iron ore and ferrous products accounted for 75 percent of that amount. In the future

it is expected that Brazil will continue first and foremost as an exporter of iron ore.

Brazil now is also a leading exporter of manganese and ranks as the world's largest supplier of niobium, quartz crystal, and beryl. In the next five years the country is slated to become an important exporter of bauxite, nickel, and precious and semi-precious stones as well. The outlook appears bright also for titanium, gold, tungsten, chrome, uranium, non-metallurgical coal, and such industrial minerals as phosphates, potash, kaolin, and asbestos. To date, however, exploration for the most needed ore, copper, has revealed few promising results.

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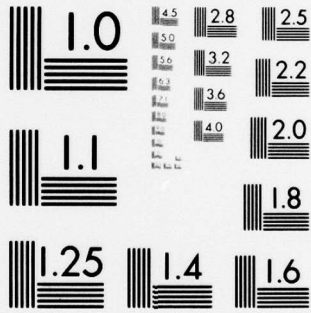
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Table 1. Brazil: Value and Volume of Exports and Imports and Value of Trade Balance, 1963-74
(Values in Millions of US dollars; Volume in Thousands of Metric Tons)

	Exports (f.o.b.)		Imports (c.i.f.)		Value of Trade Balance (-) indicates import deficit
	Value	Volume	Value	Volume	
1963	1,406	14,139	1,487	17,666	-81
1964	1,430	14,587	1,263	18,174	167
1965	1,595	19,682	1,096	16,633	499
1966	1,741	20,103	1,496	19,392	245
1967	1,654	21,144	1,667	19,042	-13
1968	1,881	23,487	2,132	23,648	-251
1969	2,311	30,205	2,265	24,621	179
1970	2,739	39,970	2,849	28,074	-110
1971	2,904	43,824	3,701	32,922	-797
1972	3,991	45,694	4,783	38,487	-792
1973	6,199	64,059	6,999	49,769	-800
1974 ^{1/}	7,968	78,458	14,062	54,672	-6,094

^{1/} Preliminary data.

Sources: Quantity and value of exports, 1963-73, and imports, 1963-71, from Banco do Brasil, Carteira de Comercio Exterior (CACEX), Comercio Exterior (Foreign Trade), Exportacao (Exports), 10 vol. 1973; imports, 1972-73, from Ministerio da Fazenda, Centro de Informacoes Economico-Fiscais, Comercio Exterior do Brasil, Importacao, vol. I, 1973; exports, 1974, and import quantity, 1974, from Banco Central do Brasil, Boletim, April 1975; import value, 1974, from International Monetary Fund, International Financial Statistics, June 1975.

Table 2. Brazil: Export Groups, By Value and Percentage of Total Value, 1964, 1967-71 Average, and 1972-74, and Percent of Growth between 1964 and 1973, and 1973-74 (values in millions of U.S. dollars)

	1964			1967-71 average			1972			1973			1974 ^{1/}		
	Value	Per- cent of total	Per- cent of total	Value	Per- cent of total	Per- cent of total	Value	Per- cent of total	Per- cent of total	Value	Per- cent of total	Per- cent of total	Value	Per- cent of total	Per- cent of total
Total value of exports	1,429.8	100.0	100.0	2,297.9	100.0	100.0	3,991.2	100.0	100.0	6,199.2	100.0	100.0	7,967.7	100.0	28.5
Coffee beans	759.9	53.1	34.9	800.0	34.9	24.8	989.2	24.8	20.1	1,244.3	20.1	63.8	877.4	11.0	-41.8
Primary products, excluding coffee beans, total	<u>460.9</u>	<u>32.3</u>	<u>40.3</u>	<u>924.8</u>	<u>40.3</u>	<u>43.5</u>	<u>1,735.4</u>	<u>43.5</u>	<u>46.0</u>	<u>2,852.2</u>	<u>46.0</u>	<u>518.9</u>	<u>3,932.3</u>	<u>49.4</u>	<u>37.9</u>
Traditional products	277.3	19.4	22.3	512.2	22.3	22.8	910.4	22.8	20.0	1,240.9	20.0	347.4	2,180.2	27.4	75.7
Other primary products	183.6	12.9	18.0	412.6	18.0	20.7	825.0	20.7	26.0	1,611.4	26.0	777.7	1,752.1	22.0	8.7
Industrialized products, total	<u>204.5</u>	<u>14.3</u>	<u>23.5</u>	<u>541.1</u>	<u>23.5</u>	<u>30.6</u>	<u>1,221.7</u>	<u>30.6</u>	<u>31.3</u>	<u>1,941.5</u>	<u>31.3</u>	<u>849.2</u>	<u>2,962.9</u>	<u>37.2</u>	<u>52.6</u>
Semi-manufactures	115.0	8.0	8.9	205.1	8.9	7.8	310.0	7.8	7.7	476.2	7.7	313.1	631.3	7.9	32.6
Manufactures (including soluble coffee)	89.5	6.3	14.6	336.0	14.6	22.8	911.7	22.8	23.6	1,465.3	23.6	1,538.1	2,331.6	29.3	59.1
Special Transactions ^{2/}	4.7	0.3	1.3	31.2	1.3	1.1	44.9	1.1	2.6	161.2	2.6	243.0	195.1	2.4	21.0

1/ Preliminary data.

2/ Special transactions include items such as samples, ships' stores, baggage, and returned merchandise

Sources: Banco Central do Brasil, Relatorio Anual, Boletim, March 1974 and March 1975.

Table 3—Brazil's Exports, by Groups and Principal Commodities with Percentage of Total Value for the Groups, 1964 and 1970-74 (Value in Millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
<u>Coffee beans</u>	759.7	53.1	939.3	34.3	772.5	26.6
<u>Other products</u>	665.4	46.5	1,774.9	64.8	2,037.8	70.2
<u>Other primary products:</u>	460.9	32.2	1,110.0	40.5	1,216.0	41.9
<u>Traditional products</u>	277.3	19.4	598.9	21.8	626.8	21.6
Sugar	33.0		126.6		153.0	
Raw	(33.0)		(126.5)		(146.6)	
Crystal	-		(.1)		(6.4)	
Raw cotton	108.3		154.4		137.1	
Cocoa beans	34.8		77.7		61.7	
Iron ore	80.6		209.6		237.3	
Manganese ore	20.6		30.6		37.7	
<u>Non-traditional primary products</u>	183.6	12.8	511.1	18.7	589.2	30.2
Corn	2.9		80.6		75.4	
Soybeans	-		27.1		24.3	
Soybean bran & cake	3.0		43.6		81.5	
Brazil nuts	10.4		13.6		14.0	
Cashew nuts	1.0		7.3		5.1	
Peanuts	-		12.3		8.8	
Pepper	3.0		8.2		15.0	
Peanut bran & cake	1.8		15.7		16.7	
Cottonseed bran & cake	1.0		9.7		8.6	
Rice	.9		6.8		11.5	
Other mineral ores	1.2		23.3		14.8	
Crude oil	-		.6		7.7	
Lobster	2.6		10.0		16.4	
Shrimp	.2		6.3		11.1	
Beef, chilled or frozen	11.6		69.6		98.7	
Horse meat, chilled or frozen	.7		8.3		12.9	
Raw wool	23.5		17.3		15.3	

Table 3--Brazil's Exports, by Groups and Principal Commodities with
 Percentage of Total Value for the Groups, 1964 and 1970-74
 (Value in Millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
<u>Coffee beans</u>	989.2	24.8	1,244.2	20.1	877.4	11.0
<u>Other products</u>	2,957.1	74.1	4,793.8	77.3	6,895.2	86.6
<u>Other primary products:</u>	1,735.4	43.5	2,852.3	46.0	3,932.3	49.4
<u>Traditional products</u>	910.4	22.8	1,240.9	20.0	2,180.2	27.4
Sugar	403.5		552.7		1,258.6	
Raw	(314.1)		(454.9)		(975.6)	
Crystal	(89.4)		(97.8)		(283.0)	
Raw cotton	188.7		218.0		90.9	
Cocoa beans	59.2		88.5		210.0	
Iron ore	231.7		362.8		571.0	
Manganese ore	27.3		18.9		49.7	
<u>Non-traditional primary products</u>	825.0	20.7	1,611.6	26.0	1,752.1	22.0
Corn	9.6		3.1		138.2	
Soybeans	127.9		494.2		585.0	
Soybean bran & cake	152.3		422.6		303.0	
Brazil nuts	20.2		22.8		20.2	
Cashew nuts	8.8		9.8		15.0	
Peanuts	13.6		19.5		28.2	
Pepper	12.7		17.0		26.1	
Peanut bran & cake	14.6		14.5		10.2	
Cottonseed bran & cake	11.7		14.5		9.2	
Rice	0.2		4.2		18.1	
Other mineral ores	15.0		17.6		20.3	
Crude oil	16.0		15.7		29.9	
Lobster	16.4		18.0		27.9	
Shrimp	18.0		8.0		8.6	
Beef, chilled or frozen	169.2		148.7		29.5	
Horse meat, chilled or frozen	21.8		44.0		39.6	
Raw wool	15.9		45.2		43.8	

Table 3. Cont'd

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Bananas	5.8		10.7		10.4	
Other fruit	5.0		5.5		6.7	
Sisal	37.5		16.5		15.3	
Cotton lintners	1.5		3.8		2.8	
Tobacco leaves	28.3		31.2		36.6	
Mate	7.8		4.8		5.7	
Others	33.9		78.3		77.5	
Industrialized goods:	204.5	14.3	664.9	24.3	821.8	28.3
<u>Semi-processed goods</u>	115.0	8.0	249.0	9.1	240.6	8.3
Carnauba wax	10.2		9.6		10.6	
Sawn wood	48.0		76.7		82.1	
Pine	(46.4)		(67.5)		(71.8)	
Other	(1.6)		(9.2)		(10.3)	
Cocoa butter	10.9		28.0		24.3	
Peanut oil, raw	-		10.0		21.7	
Castor oil, raw	24.4		38.2		40.0	
Other	21.5		86.5		61.9	
Manufactured goods	89.5	6.3	415.9	15.2	581.2	20.0
Footwear	.2		8.3		29.3	
Boilers, machinery, & mechanical apparatus & instruments	6.9		23.9		38.8	
Beef, processed	5.4		15.8		50.9	
Wood veneers	1.2		16.7		18.6	
Electrical machinery & apparatus	1.6		16.8		28.5	
Office machinery & apparatus	.9		28.2		27.2	
Rolling stock & vehicles	7.5		14.9		25.0	
Steel mill products	4.3		41.1		29.5	
Mollasses	-		7.7		8.6	
Menthol	5.7		10.6		17.1	

Table 3. Cont'd

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Bananas	9.6		14.9		22.6	
Other fruit	5.8		6.5		9.1	
Sisal	22.5		59.4		114.1	
Cotton linters	1.9		1.5		1.4	
Tobacco leaves	46.7		58.5		99.0	
Mate	3.2		3.5		7.5	
Others	91.4		147.9		145.5	
Industrialized goods:						
Semi-processed goods	1,221.7	30.6	1,941.3	31.3	2,962.9	37.2
Carnauba wax	310.0	7.8	475.1	7.7	631.3	7.9
Sawn wood	11.2		13.3		25.2	
Pine	72.6		90.0		85.8	
Other	(59.7)		(62.8)		(50.1)	
Cocoa butter	(12.9)		(27.2)		(35.7)	
Peanut oil, raw	33.1		47.6		100.0	
Castor oil, raw	27.4		19.4		29.1	
Other	53.8		122.4		128.4	
Manufactured goods	111.9		182.4		262.8	
Footwear	911.7	22.8	1,466.2	23.7	2,331.6	29.3
Boilers, machinery, & mechanical apparatus & instruments	54.6		93.5		120.3	
Beef, processed	55.3		70.0		150.0	
Wood veneers	50.5		69.8		81.0	
Electrical machinery & apparatus	24.9		33.4		23.1	
Office machinery & apparatus	38.7		83.8		183.0	
Rolling stock & vehicles	30.9		41.2		96.4	
Steel mill products	68.6		76.2		186.4	
Molasses	52.3		52.9		72.5	
Menthol	13.5		31.0		58.8	
	21.8		28.7		46.5	

Table 3. Cont'd

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Essential oils	2.8		8.2		10.4	
Vegetable & fruit juices	1.4		15.1		36.9	
Orange juice	-		(14.7)		(35.9)	
Cotton fabrics	2.9		9.0		11.0	
Glass & glassware	.3		7.3		14.2	
Petroleum products	2.7		14.9		12.9	
Soluble coffee	.2		42.5		49.7	
Other	45.5		134.9		172.6	
Special Transactions	4.7	0.3	24.7	0.9	93.6	3.2
Total	1,429.8	100.0	2,738.9	100.0	2,903.9	100.0

Source: Banco Central do Brasil, Boletim, July 1974 and April 1975

Table 3. Cont'd

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Essential oils	12.0		19.1		37.5	
Vegetable & fruit juices	43.6		67.6		62.3	
Orange juice	(41.5)		(62.2)		(59.2)	
Cotton fabrics	25.8		52.6		59.4	
Glass & glassware	11.5		12.0		16.7	
Petroleum products	22.9		36.4		33.2	
Soluble coffee	67.9		99.9		124.6	
Other	316.9		598.1		979.9	
<u>Special Transactions</u>	44.9	1.1	161.2	2.6	195.1	2.4
	3,991.2	100.0	6,199.2	100.0	7,967.7	100.0
Total						

Source: Banco Central do Brasil, Boletim, July 1974 and April 1975

Table 4. Growth of Brazilian Exports, 1964-69 Average and 1970-73, by Customs Categories
 (Values in thousands of U.S. dollars)

Classification	1964-69 average		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Live animals and animal products	52.8	2.7	107.8	3.9	151.4	5.2
Vegetable products	89.9	46.5	1,132.2	41.3	962.5	33.2
Animal and vegetable fats and oils; waxes	51.7	2.7	67.5	2.5	78.8	2.7
Food products, beverages, vinegar, tobacco	299.9	15.5	436.1	15.9	561.3	19.3
Mineral products	153.3	7.9	286.0	10.4	322.9	11.1
Products of the chemical and related industries	24.8	1.3	36.0	1.3	49.4	1.7
Plastic materials, resins, and rubbers	7.2	0.4	10.3	0.4	10.5	0.4
Hides and skins and articles thereof	30.4	1.6	41.9	1.5	34.5	1.3
Wood, charcoal, cork, straw	92.8	4.8	109.1	4.0	114.7	3.9
Papers and materials for its manufacture	3.2	0.2	8.7	0.3	19.2	0.7
Textile materials and manufactures	204.3	10.6	232.8	8.5	231.7	8.0
Footwear, hats, feathers, flowers	1.1	0.1	8.7	0.3	29.9	1.0
Articles of stone, ceramic products, glass	5.8	0.3	9.8	0.4	17.6	0.6
Pearls, precious & semi-precious stones, precious metals & plated ware; costume jewelry	4.8	0.3	11.8	0.4	17.9	0.6
Basic metals and their manufactures	41.5	2.2	112.3	4.1	67.6	2.3
Machinery and apparatus; electrical equipment	37.8	2.0	81.5	3.0	105.6	3.6
Transportation material	6.2	0.3	15.4	0.6	27.2	0.9
Optical, photographic & measuring instruments, etc.; watches; radio & television apparatus	1.1	0.1	2.0	0.1	3.3	0.1
Arms and munitions	1.7	0.1	1.9	0.1	3.3	0.1

Table 4. (cont'd)

Classification	1964-69 average		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Miscellaneous manufactures not specified elsewhere	0.9	.1	2.3	0.1	3.9	0.1
Works of art, objects for collections, antiques	0.3	insig.	insig.	insig.	0.1	insig.
Special transactions*	12.1	0.6	24.9	0.9	87.5	0.3
TOTAL	1,932.6	100.0	2,738.9	100.0	2,903.9	100.0

Table 4 (cont'd)

Classification	1972		1973		Growth from 1964-69 to 1973		
	Value	Percent of total	Value	Percent of total	Percent	Value	Percent of In-creased Value
Live animals and animal products	252.1	6.3	260.1	4.2	393	207.3	4.9
Vegetable products	1,214.7	30.4	1,864.1	30.1	107	965.2	22.6
Animal and vegetable fats and oils; waxes	111.5	2.8	194.3	3.1	276	142.6	3.3
Food products, beverages, vinegar, tobacco	941.4	23.6	1,541.1	24.9	414	1,241.2	29.1
Mineral products	322.3	8.1	495.8	8.0	224	342.6	8.0
Products of the chemical and related industries	63.1	1.6	98.0	1.6	296	73.2	1.7
Plastic materials, resins, and rubbers	11.2	0.3	19.2	0.3	168	12.0	0.3
Hides and skins and articles thereof	76.3	1.9	80.5	1.3	165	50.1	1.2
Wood, charcoal, cork, straw	120.1	3.0	188.9	3.1	104	96.2	2.2
Papers and materials for its manufacture	35.4	0.9	59.8	0.9	1,747	56.6	1.3
Textile materials and manufactures	371.0	9.3	640.4	10.3	214	436.2	10.2
Footwear, hats, feathers, flowers	55.5	1.4	94.6	1.5	8,895	93.6	2.2
Articles of stone, ceramic products, glass	15.8	0.4	19.6	0.3	240	13.8	0.3
Pearls, precious & semi-precious stones, precious metals & plated ware; costume jewelry	25.9	0.6	49.0	0.8	913	44.2	1.0
Basic metals and their manufactures	109.5	2.7	143.3	2.3	245	101.7	2.4
Machinery and apparatus; electrical equipment	139.6	3.5	211.8	3.4	460	174.6	4.1

Table 4. (cont'd)

Classification	1972		1973		Growth from 1964-69 to 1973	
	Value	Percent of total	Value	Percent of total	Percent Value	Percent of In-creased Value
Transportation material	76.6	1.9	91.2	1.5	1,376	85.
Optical, photographic & measuring instruments, etc.; watches; radio & television apparatus	4.6	0.1	7.9	0.1	587	6.7
Arms and munitions	3.5	0.1	5.6	0.1	389	3.9
Miscellaneous manufactures not specified elsewhere	6.7	0.2	15.7	0.2	1,596	14.8
Works of art, objects for collections, antiques	insig.	insig.	.1	insig.	-139	-.2
Special transactions*	34.1	0.8	8.0	1.9	872	105.8
TOTAL	3,991.2	100.0	6,199.2	100.0	221	4,266.6

1/ Effective with trade data for 1971. Some of the classifications are listed in this table in abbreviated form.

Sources: Banco de Brasil, Carteira de Comercio Exterior (CACEX), Comercio Exterior (Foreign Trade), Exportacao (Exports), 1972 and 1° vol. 1973.

* Chiefly bunker fuel

INSIG = Less than \$100,000 or 0.1%

Table 5. Brazil: Exports by Industry Class and Type of Goods, Quantum Index,^{1/} 1964-74
(1965-67 = 100)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
General exports	85	93	106	101	116	132	136	144	183	211	205
General exports, excluding coffee	74	101	104	95	114	143	162	171	234	280	303
<u>Exports by industry class</u>											
Minerals	78	102	100	98	116	152	207	231	230	310	410
Manufacturing industry	58	93	97	109	116	142	166	172	258	294	294
Metallurgy	30	80	58	163	118	139	251	147	252	261	220
Machinery	42	79	89	130	131	169	223	228	271	373	700
Electrical & communications equipment	35	82	102	116	134	207	332	453	571	975	1,461
Transportation equipment	51	81	162	56	78	123	312	354	954	1,139	
Wood	94	103	106	90	114	91	88	101	101	120	68
Chemicals	76	92	94	114	100	146	167	144	193	243	207
Textiles	87	94	109	97	108	132	148	162	303	468	532
Foodstuffs	40	90	100	108	133	164	179	211	335	334	311
Unprocessed products	93	89	108	103	117	129	121	122	131	138	110
<u>Exports by type of goods</u>											
Consumer goods	83	120	111	68	118	148	173	225	310	338	n. a.
Durable	62	112	79	110	139	182	235	347	731	1,669	n. a.
Nondurable	85	121	113	66	118	148	172	222	301	305	262
Raw materials	84	91	106	103	116	131	132	134	158	173	160
For agriculture	40	86	118	95	125	173	256	359	509	554	693
For industry	70	104	90	106	112	148	214	208	226	301	379
Metallic											
Nonmetallic											
Except building materials	87	89	108	103	117	131	122	122	146	156	131
Building materials	92	101	108	92	116	91	88	85	69	69	40
Capital goods for industry	33	64	108	127	145	153	180	230	326	387	580

^{1/} Laspeyres-type index of weighted arithmetic averages calculated from a sample of commodities and commodity groups which represent not less than 79.6 percent of the value of exports annually.

Source: Fundacao Getulio Vargas, *Conjuntura Economica*, July 1975

Table 6. Brazil: Imports of Specified Principal Commodities and Commodity Groups, Value (f.o.b. basis) and Percent of Total, 1968-72 Average, 1973, and 1974 (values in millions of U.S. dollars)

	1968-72 Average		1973		1974	
	Value	Percent	Value	Percent	Value	Percent
Total	2,767	100.0	6,192	100.0	12,531	100.0
Total, excluding petroleum	2,491	90.0	5,481	88.5	9,771	78.0
Petroleum and its products	276	10.0	711	11.5	2,760	32.0
Machinery and transport equipment	1,039	37.6	2,142	34.6	3,108	24.8
Nonelectric machinery	n.a.	n.a.	(1,232)	(19.9)	(1,761)	(14.0)
Electric machinery	n.a.	n.a.	(476)	(7.7)	(712)	(5.7)
Railway equipment	n.a.	n.a.	(61)	(1.0)	(59)	(0.5)
Vehicles other than railway	n.a.	n.a.	(182)	(2.9)	(303)	(2.4)
Aircraft	n.a.	n.a.	(135)	(2.2)	(259)	(2.1)
Ships	n.a.	n.a.	(56)	(0.9)	(15)	(0.1)
Chemical fertilizers	65	2.3	139	2.2	403	3.2
Organic chemicals	146	5.3	372	6.0	635	5.1
Wheat	124	4.5	335	5.4	471	3.8
Iron and steel mills products	173	6.2	493	8.0	1,535	12.2
Nonferrous metals	138	5.0	288	4.6	593	4.8
Copper	(77)	(2.8)	(164)	(2.6)	(329)	(2.6)
Aluminum	(28)	(1.0)	(51)	(0.8)	(132)	(1.1)
Zinc	(15)	(0.6)	(41)	(0.7)	(76)	(0.6)
Others	(17)	(0.6)	(32)	(0.5)	(57)	(0.5)
Other products	805	29.1	1,712	27.6	3,026	24.1

Source: Banco Central do Brasil, Relatorio Anual 1974, Boletim, March 1975

Table 7. Growth of Brazilian Imports, 1964-69 average and 1970-73, by Customs Categories

(Values in millions of US dollars)

Classification	1964-69 average		1970		1971		1972		1973		Growth from 1964-69 to 1973		
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent of increased value	
Live animals & animal products	33.5	2.0	48.7	1.9	54.1	1.5	52.0	1.1	113.8	1.6	240	80.3	1.5
Vegetable products	213.7	12.7	188.8	7.5	241.6	6.5	272.1	5.7	582.6	8.3	173	368.9	6.9
Animal & vegetable fats & oils; waxes	16.5	1.0	20.3	0.8	24.8	0.7	27.7	0.6	46.4	0.7	181	29.9	0.6
Food products, beverages, vinegar, tobacco	8.5	0.5	11.8	0.5	19.3	0.5	24.0	0.5	37.5	0.5	339	29.0	0.6
Mineral products	238.7	14.2	301.1	12.0	571.8	15.5	697.4	14.6	1,130.3	16.2	374	891.6	16.8
Products of the chemical & related industries	232.3	13.8	360.0	14.4	487.5	13.2	693.7	14.5	966.0	13.8	316	733.6	13.8
Plastic materials, resins, & rubbers	38.9	2.3	70.1	2.8	109.6	3.0	116.8	2.4	176.6	2.5	354	137.7	2.6

Table 7. Growth of Brazilian Imports, 1964-69 average and 1970-73, by Customs Categories (cont'd)

(Values in millions of US dollars)

Classification	1964-69 average		1970		1971		1972		1973		Growth from 1964-69 to 1973		
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent of increased value	
Hides & skins and articles thereof	1.1	0.1	2.1	0.1	3.0	0.1	5.2	0.1	13.6	0.2	1,105	12.5	0.2
Wood, charcoal, cork, straw	1.4	0.1	3.4	0.1	3.9	0.1	6.7	0.1	11.9	0.1	740	10.5	0.2
Paper and materials for its manufacture	47.2	2.8	63.9	2.6	98.2	2.7	127.1	2.7	157.0	2.2	233	109.8	2.1
Textile materials & manufactures	20.1	1.2	39.1	1.6	63.1	1.7	73.6	1.5	103.7	1.5	417	83.6	1.6
Footwear, hats, feathers, flowers	0.4	insig	1.2	0.1	1.6	insig	3.7	0.1	4.2	0.1	1,014	3.8	0.1
Articles of stone, ceramic products, glass	11.4	0.7	19.4	0.8	26.8	0.7	38.6	0.8	52.6	0.8	361	41.2	0.8

Table 7. Growth of Brazilian Imports, 1964-69 average and 1970-73, by Customs Categories (cont'd)

(Values in millions of US dollars)

Classification	1964-69 average		1970		1971		1972		1973		Growth from 1964-69 to 1973		
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	
Pearls, precious & semi-precious stones, precious metals & plated ware; costume jewelry	4.9	0.3	10.3	0.4	12.6	0.3	17.4	0.4	27.7	0.4	466	22.8	0.4
Base metals & their manufactures	203.1	12.1	329.9	13.2	476.0	12.9	504.2	10.5	980.3	13.0	347	705.3	13.3
Machinery apparatus; electrical equipment	411.3	24.5	712.7	28.4	1,034.5	28.0	1,493.7	31.2	1,825.1	26.1	344	1,413.7	26.6
Transportation material	136.0	8.1	195.1	7.8	288.2	7.8	360.1	7.5	457.1	6.5	236	321.0	6.0
Optical, photographic, and measuring instruments, etc.; watches; radio and television apparatus	53.7	3.2	110.1	4.4	142.5	3.9	207.6	4.3	294.5	4.2	448	240.8	4.5

Table 7. Growth of Brazilian Imports, 1964-69 average and 1970-73, by Customs Categories (cont'd)

(Values in millions of US dollars)

Classification	1964-69 average		1970		1971		1972		1973		Growth from 1964-69 to 1973		
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	
Arms and munitions	0.3	insig	0.2	insig	1.0	insig	3.7	0.1	0.8	insig	194	0.5	insig
Miscellaneous manufactures not specified elsewhere	2.4	0.1	4.1	0.2	6.5	0.2	9.4	0.2	13.6	0.2	465	11.2	insig
Works of art, objects for collections, antiques	insig	insig	0.2	insig	0.3	insig	1.9	0.0	1.8	insig	4,226	1.8	insig
Special transactions	4.9	0.3	14.5	0.6	34.4	0.9	46.8	1.0	73.9	1.1	1,434	69.0	1.3
Total	1,680.4	100.00	2,506.9	100.00	3,701.4	100.00	4,783.3	100.00	6,999.0	100.00	317	5,318.6	100.00

1/ Effective with trade data for 1971. Some of the classifications are listed in this table in abbreviated form.

INSIG = Less than \$100,000 or 0.1 percent.

Sources: 1964-72 data from Banco do Brasil, Carteira de Comercio Exterior (CACEX), Comercio Exterior (Foreign Trade), Exportacao (Exports), 1972; 1973 data from Ministerio da Fazenda, Centro de Informacoes Economico-Fiscais, Comercio Exterior do Brasil, Importacao, Vol. I, 1973.

Table 8. Brazil: Imports by Industry Class and Type of Goods, Quantum Index,^{1/} 1964-73

(1965-67 - 100)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
General imports	92	80	106	115	142	148	178	217	263	318
Imports by industry class										
Minerals	101	95	105	99	116	126	147	175	214	284
Manufacturing industry	71	76	105	119	162	173	218	287	351	419
Metallurgy	83	77	188	105	121	141	160	252	256	373
Machinery	90	67	98	134	175	212	289	434	601	556
Electrical & communications equipment	72	64	105	131	172	219	281	239	311	444
Transport equipment	83	72	109	119	160	153	182	326	362	570
Paper and paperboard	95	74	96	129	205	198	223	298	386	405
Chemicals	77	85	103	112	183	181	246	275	335	381
Foodstuffs	100	76	102	122	118	119	141	115	109	165
Unprocessed products	110	85	105	111	122	112	99	91	98	137
Imports by type of goods										
Consumer goods	90	79	97	124	137	131	160	166	187	266
Durable	98	79	89	133	140	115	169	203	285	446
Non-durable	86	79	101	121	136	138	155	138	144	195
Fuels and lubricants	113	93	106	101	130	133	164	171	196	253
Raw materials	87	82	108	110	137	141	162	192	227	294
For agriculture	58	85	92	122	153	166	266	274	461	447
For industry	82	77	119	104	124	154	177	263	268	399
Metallic	94	84	104	110	137	130	143	151	182	233
Non-metallic										
Capital goods	86	68	104	128	163	184	227	300	388	418
For industry	91	67	103	131	175	198	251	374	500	468
Transportation equipment	89	70	106	124	139	155	165	262	302	394

^{1/} Laspeyres - type index of weighted arithmetic average calculated from a sample of commodities and commodity groups which represent not less than 75.0 percent of the value of imports annually.

Source: Fundacao Getulio Vargas, Conjuntura Economica, July 1975.

Table 9. Brazil: Exports, Imports, and Trade Balances, by Areas, Blocs, and Specified Countries, 1964, 1973, and 1974^{1/}
(millions of U.S. dollars)

	1964			1973			1974		
	Exports	Imports (cif)	Balance	Exports	Imports (cif)	Balance	Exports	Imports (fob)	Preliminary data Balance
United States	474.3	435.8	38.5	1,122.4	2,004.6	-882.2	1,737.1	3,071.8	-1,334.7
Canada	21.9	14.5	7.4	69.0	125.9	-56.9	95.4	411.9	-316.5
Latin America	139.3	260.9	-121.6	600.4	645.5	-45.1	978.8	988.0	-9.2
LAFTA	138.4	260.4	-122.0	557.4	606.0	-48.6	917.7	943.7	-26.0
Other Latin America	.9	.5	.4	43.0	39.5	3.5	61.1	44.3	16.8
Other Western Hemisphere	1.1	20.9	-19.8	34.4	40.1	-5.7	69.6	84.2	-14.6
Western Europe	617.8	352.3	265.5	2,951.0	2,507.8	443.2	3,153.9	3,937.2	-783.3
EEC	471.0	265.9	205.1	2,296.6	1,931.0	365.6	2,433.7	3,160.9	-727.2
Other Western Europe	146.8	86.4	60.4	654.4	576.8	77.6	720.2	776.3	-56.1
Communist countries	88.6	69.0	19.6	411.8	99.0	312.8	414.8	156.5	258.3
U.S.S.R.	37.1	27.6	9.5	146.8	12.5	134.3	135.4	55.9	79.5
P.R.	.2	.6	-.4	65.1	.4	64.7	18.9	.4	18.5
Others	51.3	40.8	10.5	199.9	86.1	113.8	260.5	100.2	160.3
"Oil States" outside the Western Hemisphere ^{2/}	9.7	65.6	-55.9	153.8	823.8	-670.0	464.2	2,472.8	-2,008.6
Japan	27.8	33.8	-6.0	425.2	549.4	-124.2	556.7	1,093.7	-537.0
Other Africa, Asia, and Oceania	49.4	10.5	38.9	396.1	202.8	193.3	404.5	419.8	-15.3
TOTAL	1,429.8	1,263.5	166.3	3/6,199.2	6,999.0	-799.8	4/7,951.0	12,635.2	-4,684.2

1/ Export data for 1974 are final. Import data for 1974, which are on an f.o.b. basis, are preliminary. The figure for total imports on a c.i.f. basis (\$14,161.5) is 12.08 percent.

2/ Gulf States, Iran, Iraq, Kuwait, Saudi Arabia, Yemen, Algeria, Libya, Nigeria

3/ Includes \$35.1 million ship chandlers supplies.

4/ Includes \$75.9 million ship chandlers supplies

Sources: Data from Tables Nos. 10 and 11.

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
United States	474.3	33.18	676.1	24.72	760.0	26.37
Canada	21.9	1.53	40.6	1.48	42.8	1.49
LAFTA	138.4	9.68	302.9	11.08	354.7	12.31
Argentina	90.9	6.35	185.7	6.79	200.6	6.96
Mexico	6.3	0.44	20.4	0.75	21.8	0.76
Paraguay	2.5	0.18	11.2	0.41	21.5	0.75
Uruguay	18.2	1.27	31.1	1.13	32.7	1.13
Andean Group	20.6	1.44	54.6	2.00	78.1	2.71
Bolivia	.9	0.06	7.6	0.28	13.3	0.46
Chile	11.3	0.79	23.7	0.87	31.6	1.10
Colombia	2.0	0.14	6.7	0.24	8.7	0.30
Ecuador	.4	0.03	7.7	0.03	1.5	0.05
Peru	1.3	0.09	7.7	0.28	11.4	0.40
Venezuela	4.7	0.33	8.2	0.30	11.6	0.40
Central American Common Market	.1	0.01	1.5	0.05	1.2	0.04
Costa Rica	1/	2/	3.6	0.01	.2	0.01
El Salvador	1/	2/	.1	2/	.2	0.01
Guatemala	1/	2/	.3	0.01	.2	0.01
Honduras	1/	2/	.1	2/	.4	0.01
Nicaragua	1/	2/	.6	0.02	.1	2/
Other Latin America	.8	0.06	4.6	0.17	6.9	0.24
Cuba	.5	0.03	-	-	-	-
Dominican Republic	.1	0.01	.7	0.02	2.7	0.09
Haiti	1/	2/	.1	2/	1/	2/
Panama	.3	0.02	3.8	0.14	4.2	0.15
Caribbean Free Trade Assn.	.9	0.06	5.2	0.19	2.8	0.09
Barbados	3/	3/	.1	2/	.3	0.01
Guyana	1/	2/	.2	0.01	.2	0.01
Jamaica	3/	3/	1.3	0.05	.7	0.02
Trinidad -Tobago	.5	0.04	3.3	0.12	1.5	0.05
Others	.3	0.02	.2	0.01	.1	2/
Other Western Hemisphere	.2	0.01	7.7	0.28	10.7	0.37
Netherlands Antilles	.2	0.01	4.9	0.18	6.1	0.21
Bahamas	-	-	2.0	0.07	3.5	0.12

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
United States	931.2	23.33	1,122.4	18.11	1,737.1	21.85
Canada	50.3	1.26	69.0	1.11	95.4	1.20
LAFTA	407.8	10.22	557.4	8.99	917.7	11.54
Argentina	154.4	3.87	198.3	3.19	301.7	3.80
Mexico	34.4	0.86	50.3	0.81	87.4	1.10
Paraguay	31.9	0.80	60.6	0.98	98.0	1.23
Uruguay	35.7	0.89	40.9	0.66	71.0	0.89
Andean Group	151.4	3.79	207.4	3.35	359.5	4.52
Bolivia	23.7	0.59	37.4	0.60	82.4	1.04
Chile	54.9	1.38	34.5	0.56	91.8	1.15
Colombia	11.7	0.29	19.1	0.31	28.4	0.36
Ecuador	4.0	0.10	12.8	0.21	17.8	0.22
Peru	32.2	0.81	40.5	0.65	52.7	0.66
Venezuela	25.0	0.63	63.1	1.02	86.5	1.21
Central American Common Market	4.0	0.10	8.7	0.14	13.1	0.16
Costa Rica	.6	0.02	4.7	0.07	3.8	0.05
El Salvador	1.5	0.04	.9	0.01	1.9	0.02
Guatemala	.8	0.02	1.2	0.02	3.2	0.04
Honduras	.3	0.01	1.0	0.02	2.1	0.03
Nicaragua	.7	0.02	1.0	0.02	2.2	0.03
Other Latin America	16.0	0.40	34.3	0.55	48.0	0.60
Cuba	-	-	-	-	-	-
Dominican Republic	2.9	0.07	1.7	0.03	4.0	0.05
Haiti	.1	2/	.3	2/	.4	2/
Panama	13.1	0.33	32.3	0.52	43.7	0.55
Caribbean Free Trade Assn.	8.8	0.22	12.4	0.20	16.6	0.21
Parbados	.4	0.01	.4	0.01	1.0	0.01
Guyana	.4	0.01	1.3	0.02	1.8	0.02
Jamaica	4.3	0.11	2.3	0.04	9.5	0.12
Trinidad -Tobago	3.5	0.09	8.1	0.13	4.2	0.05
Others	.2	2/	.4	0.01	.1	2/
Other Western Hemisphere	17.6	0.44	22.0	0.35	52.9	0.67
Netherlands Antilles	6.8	0.17	9.9	0.16	14.4	0.18
Bahamas	9.1	0.23	9.6	0.16	22.7	0.41

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Others	1/	2/				
U.S. and Canada	496.3	34.71	716.6	26.20	802.8	27.86
Latin America	139.3	9.75	309.0	11.30	363.8	12.59
Other Western Hemisphere	1.0	0.07	12.9	0.47	13.4	0.46
Total, Western Hemisphere	63.67	44.53	1,038.5	37.97	1,179.0	40.92
European Free Trade Assn.	85.8	6.00	148.5	5.43	134.5	4.67
Austria	2.9	.20	15.8	0.58	17.9	0.62
Norway	18.7	1.31	33.4	1.22	25.9	0.90
Portugal	5.3	0.37	12.7	0.46	19.0	0.66
Sweden	51.3	3.59	69.2	2.53	53.8	1.87
Switzerland	7.6	0.53	17.4	0.64	17.8	0.62
European Economic Community	471.0	32.94	956.6	34.97	962.9	33.41
Belgium-Luxemburg	41.5	2.90	72.6	2.66	63.2	2.19
Denmark	34.4	2.41	53.6	1.96	37.8	1.31
France	50.9	3.56	110.0	4.02	95.8	3.32
Ireland	.7	0.05	2.7	0.10	4.6	0.16
Italy	67.8	4.74	198.3	7.25	202.7	7.03
Netherlands	79.0	5.53	154.0	5.63	175.8	6.10
United Kingdom	63.0	4.40	129.8	4.75	126.6	4.39
West Germany	133.6	9.34	235.5	8.61	256.4	8.90
Other Western Europe	61.0	4.26	163.0	5.96	141.8	4.92
Finland	25.6	1.79	20.0	0.73	11.3	0.39
Greece	5.7	0.40	10.8	0.40	6.5	0.22
Iceland	1.4	0.10	1.7	0.06	1.1	0.04
Spain	12.7	0.89	107.1	3.92	94.4	3.27
Turkey	1.8	0.13	3.7	0.13	6.1	0.21
Yugoslavia	12.8	0.90	18.2	0.67	21.8	0.76
Others	1.0	0.07	1.4	0.05	.7	0.02
Mutual Economic Assistance Council	88.4	6.18	123.5	4.51	128.9	4.47

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Others	1.7	0.04	2.5	0.03	5.8	0.07
U.S. and Canada	981.6	24.59	1,191.4	19.22	1,832.5	23.05
Latin America	427.8	10.72	600.4	9.68	978.8	12.31
Other Western Hemisphere	26.5	0.66	34.4	0.56	69.6	0.88
Total, Western Hemisphere	1,435.8	35.97	1,826.2	29.46	2,880.9	36.24
European Free Trade Assn.	306.6	5.68	287.4	4.64	300.5	3.78
Austria	19.1	0.48	23.4	0.38	25.4	0.32
Norway	48.1	1.20	57.6	0.93	76.5	0.96
Portugal	60.4	1.5	70.8	1.14	72.2	0.90
Sweden	66.4	1.66	93.7	1.51	72.4	0.91
Switzerland	32.7	0.82	41.9	0.68	53.9	0.68
European Economic Community	1,291.0	34.34	2,296.6	37.04	2,433.7	30.61
Belgium-Luxemburg	78.1	1.96	155.7	2.51	145.0	1.82
Denmark	54.4	1.36	85.8	1.38	101.9	1.28
France	139.1	3.48	209.5	3.38	269.0	3.38
Ireland	5.2	0.13	5.9	0.09	10.7	0.13
Italy	269.5	6.75	351.9	5.68	357.3	4.49
Netherlands	308.0	7.72	621.5	10.03	605.2	7.61
United Kingdom	100.1	4.51	311.7	5.03	374.8	4.71
West Germany	336.6	8.43	554.7	8.95	569.8	7.17
Other Western Europe	224.3	5.62	367.1	5.93	419.7	5.28
Finland	2.8	0.70	38.9	0.63	19.0	0.24
Greece	7.4	0.19	14.1	0.23	17.9	0.23
Iceland	1.5	0.04	2.5	0.04	2.0	0.03
Spain	144.1	3.61	211.5	3.41	302.0	3.80
Turkey	9.3	0.23	14.8	0.24	21.4	0.27
Yugoslavia	31.8	0.80	82.1	1.32	54.8	0.69
Others	2.2	0.06	3.2	0.05	2.5	0.03
Mutual Economic Assistance Council	214.2	5.37	339.4	5.47	395.9	4.98

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Bulgaria	3.6	0.25	3.4	0.13	6.7	0.23
Czechoslovakia	13.0	0.91	17.2	0.63	9.7	0.34
East Germany	14.7	1.03	33.1	1.20	19.7	0.68
Hungary	6.6	0.46	18.1	0.66	12.3	0.43
Poland	7.9	0.55	23.8	0.87	24.1	0.83
Rumania	5.4	0.38	6.7	0.24	11.6	0.40
U.S.S.R.	37.1	2.60	21.2	0.78	44.8	1.55
Western Europe	617.7	43.20	1,268.1	46.37	1,239.0	43.00
Eastern Europe	88.4	6.18	123.5	4.51	128.9	4.47
Total Europe	706.1	49.38	1,391.6	50.88	1,368.0	47.47
Middle East	11.8	0.82	16.9	0.62	34.9	1.21
Egypt (U.A.R.)	1.3	0.09	1.4	0.05	2.3	0.08
Israel	.5	0.04	6.1	0.22	11.5	0.40
Jordan	.1	0.01	.2	0.01	.5	0.02
Lebanon	9.6	0.67	8.2	0.30	11.3	0.39
Syria	.2	0.01	.6	0.02	3.6	0.12
"Oil States"	.1	0.64	.4	0.02	5.6	0.20
Gulf states	1/	2/	1/	2/	1/	2/
Iran	1/	2/	.3	0.01	1.5	0.05
Iraq	1/	2/	.1	2/	4.0	0.14
Kuwait	1/	2/	1/	2/	1/	2/
Saudi Arabia	1/	2/	1/	2/	.1	2/
Yemen	-	-	-	-	1/	2/
North Africa (excluding Middle East)	14.8	1.03	33.0	1.20	28.8	1.00
"Oil States"	9.6	0.67	25.8	0.94	14.8	0.51
Algeria	9.6	0.67	25.3	0.92	14.8	0.51
Libya	1/	2/	.5	0.02	.1	2/
Morocco	1.7	0.12	3.4	0.12	9.3	0.32
Tunisia	3.6	0.25	3.7	0.14	4.7	0.16
Total Middle East and North Africa	26.5	1.86	49.9	1.82	63.7	2.21

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Bulgaria	12.4	0.31	24.5	0.39	34.8	0.44
Czechoslovakia	14.5	0.36	24.4	0.39	31.1	0.39
East Germany	41.5	1.04	46.7	0.75	40.5	0.51
Hungary	15.0	0.38	22.6	0.37	53.2	0.67
Poland	45.4	1.14	48.9	0.79	79.1	1.00
Rumania	6.0	0.15	25.5	0.41	21.8	0.27
U.S.S.R.	79.4	1.99	146.8	2.37	135.4	1.70
Western Europe	1,821.9	45.65	2,951.0	47.60	3,153.9	39.67
Eastern Europe	214.2	5.37	339.4	5.47	395.9	4.98
Total Europe	2,036.0	51.02	3,290.3	53.07	3,549.8	44.65
Middle East	50.5	1.26	171.4	2.76	329.2	4.14
Egypt (U.A.R.)	9.6	0.24	4.0	0.06	18.7	0.24
Israel	12.7	0.32	38.6	0.62	13.7	0.17
Jordan	3.1	0.08	3.0	0.05	.3	2/
Lebanon	7.7	0.19	16.2	0.26	27.4	0.34
Syria	6.3	0.16	12.8	0.21	40.0	0.50
"Oil States"	11.2	0.28	96.9	1.56	229.5	2.89
Gulf states	2/	2/	.7	0.01	5.3	0.07
Iran	6.9	0.17	55.4	0.89	55.3	0.70
Iraq	3.9	0.10	38.1	0.62	157.5	1.98
Kuwait	.2	2/	1.4	0.02	2.2	0.03
Saudi Arabia	.2	2/	1.2	0.02	5.5	0.07
Yemen	1/	2/	1/	2/	3.2	0.04
North Africa (excluding Middle East)	37.8	0.95	93.2	1.50	293.2	3.69
"Oil States"	11.8	0.30	53.4	0.86	222.7	2.80
Algeria	11.6	0.29	52.3	0.84	214.5	2.70
Libya	.2	0.01	1.1	0.02	8.2	0.10
Morocco	13.9	0.35	26.6	0.43	28.9	0.36
Tunisia	12.1	0.30	13.2	0.21	41.7	0.52
Total Middle East and North Africa	88.3	2.21	264.6	4.26	622.4	7.83

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Sub-Saharan Africa	9.3	0.65	25.8	0.95	40.2	1.40
Angola	1/	2/	.5	0.02	.7	0.03
Ethiopia	1/	2/	.9	0.03	.6	0.02
Ghana	1/	2/	2.1	0.08	1.7	0.06
Ivory Coast	1/	2/	.1	2/	2.3	0.08
Liberia	1/	2/	.1	2/	4.6	0.16
Mozambique	.1	2/	1.0	0.04	.7	0.02
Nigeria	1/	2/	.2	0.01	.5	0.02
Senegal	1/	2/	1.8	0.06	3.6	0.12
Somalia	-	-	-	-	-	-
Sudan	-	-	-	-	-	-
Union of South Africa	9.0	0.63	16.4	0.60	20.1	0.70
Zaire (Republic of Congo)	1/	2/	1/	2/	.2	0.01
Zambia	1/	2/	1/	2/	.2	0.01
Others	1/	2/	2.7	0.10	5.1	0.17
Mainland China	.2	0.01	1.3	0.05	-	-
Japan	27.8	1.95	144.9	5.30	158.4	5.50
Asia and Oceania (excluding Mainland China and Japan)	23.2	1.63	82.8	3.03	72.4	2.51
Australia	2.3	0.16	2.8	0.11	6.7	0.23
Hong Kong	15.9	1.11	32.9	1.20	20.8	0.72
India	.1	0.01	.6	0.02	1.1	0.04
Indonesia	.1	2/	.3	0.01	.6	0.02
Malaysia & Singapore	.1	0.01	2.5	0.09	6.0	0.21
New Zealand	.1	2/	.1	0.01	.4	0.01
North Korea	-	-	-	-	-	-
Pakistan	1/	2/	1/	2/	.2	0.01
Philippine Islands	.6	0.04	.7	0.03	1.5	0.05
South Korea	1/	2/	1.8	0.07	.6	0.02
South Vietnam	.4	0.03	21.3	0.78	13.2	0.46
Sri Lanka (Ceylon)	1/	2/	32.9	1.20	20.8	0.72

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Sub-Saharan Africa	43.0	1.08	92.8	1.50	123.4	1.55
Angola	1.8	0.04	4.5	0.07	5.9	0.07
Ethiopia	.6	0.02	1.3	0.02	.6	0.01
Ghana	.9	0.02	1.6	0.03	1.6	0.02
Ivory Coast	.1	2/	.8	0.01	6.3	0.08
Liberia	1.3	0.03	15.1	0.24	.3	2/
Mozambique	1.4	0.04	2.7	0.04	5.7	0.07
Nigeria	1.0	0.03	3.5	0.06	12.0	0.15
Senegal	1.5	0.04	3.4	0.06	29.9	0.38
Somalia	1.6	0.04	.1	2/	1/	2/
Sudan	2.5	0.06	22.2	0.37	4.0	0.05
Union of South Africa	29.0	0.73	33.9	0.56	45.4	0.57
Zaire (Republic of Congo)	.8	0.02	2.6	0.04	7.7	0.10
Zambia	.4	0.01	.2	2/	.1	2/
Others	.3	0.01	.9	0.01	4.0	0.05
Mainland China	70.1	1.75	65.1	1.05	18.9	0.24
Japan	180.0	4.51	425.2	6.85	556.7	7.00
Asia and Oceania (excluding Mainland China and Japan)	128.1	3.21	199.8	3.22	122.9	1.55
Australia	4.9	0.12	17.7	0.29	33.6	0.42
Hong Kong	15.8	0.40	29.3	0.47	18.7	0.23
India	2.2	0.06	7.2	0.12	.8	0.01
Indonesia	.9	0.02	8.4	0.14	11.6	0.15
Malaysia & Singapore	9.7	0.24	11.3	0.18	13.8	0.17
New Zealand	.6	0.02	3.3	0.05	6.5	0.08
North Korea	3.6	0.09	7.3	0.12	-	-
Pakistan	35.6	0.89	6.2	0.10	.5	0.01
Philippine Islands	2.4	0.06	1.3	0.02	10.4	0.13
South Korea	.8	0.02	4.4	0.07	3.5	0.04
South Vietnam	11.2	0.28	13.5	0.22	1/	2/
Sir Lanka (Ceylon)	10.8	0.27	19.5	0.31	.6	0.01

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Taiwan	2.7	0.19	21.3	0.78	13.2	0.46
Thailand	1.0	0.07	8.5	0.31	5.4	0.19
Others	<u>1/</u>	<u>2/</u>	.6	0.02	.1	<u>2/</u>
Total Asia and Oceania	51.3	3.58	229.0	8.38	230.8	8.01
Total of items listed	1,429.8	100.00	2,734.8	99.85	2,881.6	99.24
Ship Chandlers' supplies	-	-	4.1	0.15	22.2	0.76
Not declared	-	-	-	-	-	-
Total exports	1,429.8	100.00	2,738.9	100.00	2,903.9	100.00

Footnotes:

- 1/ Less than \$50,000.
- 2/ Less than 0.005 percent.
- 3/ Included in "Others" under the "Other Western Hemisphere" group.

Sources: 1964 data, Ministerio da Fazenda, Servico de Estatistica Economica e Financeira, Comercio Exterior, 1964; 1970 and 1971 data, respective issues of Ministerio da Fazenda, Centro de Informacoes Economico-Fiscais, Comercio Exterior, Exportacao; 1972-1974 data, Banco do Brasil, Carteira de Comercio Exterior (CACEX), Comercio Exterior (Foreign Trade), Exportacao (Exports), 1972, 1973, 10 vol. and 1974.

Table 10. Brazil: Exports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964 and 1970-74

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Taiwan	22.6	0.57	57.5	0.93	12.4	0.16
Thailand	6.9	0.17	4.3	0.07	7.0	0.09
Others	.2	2/	8.7	0.14	3.5	0.04
Total Asia and Oceania	378.2	9.47	690.1	11.13	698.5	8.79
Total of items listed	3,981.3	99.75	6,164.1	99.42	7,875.1	99.05
Ship Chandlers' supplies	9.8	0.25	35.1	0.58	75.9	0.95
Not declared	1/	2/	-	-	1/	2/
Total exports	3,991.2	100.00	6,199.2	100.00	7,951.0	100.00

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
United States	435.8	34.50	918.1	32.22	1,064.0	28.74
Canada	14.5	1.15	70.8	2.49	99.9	2.70
LAPTA	260.4	20.61	309.8	10.87	309.2	8.35
Argentina	116.3	9.21	170.7	5.99	131.7	3.56
Mexico	10.0	0.79	17.2	0.60	32.0	0.86
Paraguay	.6	0.05	1.4	0.05	2.7	0.07
Uruguay	2.5	0.19	11.5	0.40	26.1	0.71
Andean Group	131.0	10.37	108.9	3.83	116.8	3.16
Bolivia	.1	0.01	.2	0.01	1.7	0.04
Chile	24.9	1.97	35.7	1.25	32.6	0.88
Colombia	2/	3/	2.4	0.09	4.1	0.11
Ecuador	.1	0.01	1.5	0.05	1.4	0.04
Peru	13.5	1.07	10.2	0.36	14.7	0.40
Venezuela	92.4	7.31	59.0	2.07	62.3	1.68
Central American Common Market	2/	3/	.2	0.01	.4	0.01
Costa Rica	2/	3/	-	-	2/	3/
El Salvador	-	-	2/	3/	-	-
Guatemala	2/	3/	2/	3/	.1	3/
Honduras	-	-	2/	3/	.2	3/
Nicaragua	-	-	-	0.01	.1	3/
Other Latin America	.5	.04	12.0	0.42	16.3	0.44
Cuba	2/	3/	-	-	-	-
Dominican Republic	-	-	2/	3/	2/	3/
Haiti	-	-	-	-	2/	3/
Panama	.5	.04	12.0	0.42	16.3	0.44
Caribbean Free Trade Assn.	2.3	.18	9.2	0.32	16.6	0.45
Barbados	4/	4/	-	-	-	-
Guyana	-	-	.4	0.01	.3	0.01
Jamaica	4/	4/	2/	3/	2/	3/
Trinidad -Tobago	2.3	0.18	8.9	0.31	16.3	0.44
Others	2/	3/	-	-	-	-
Other Western Hemisphere	18.6	1.47	10.8	0.38	16.4	0.47
Netherlands Antilles	18.6	1.47	10.1	0.35	14.2	0.38
Bahamas	-	-	.5	0.02	1.1	0.03

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
United States	1,339.3	28.00	2,004.6	28.64	3,071.8	24.31
Canada	100.1	2.09	125.9	1.80	411.9	2.26
LAFTA	392.4	8.20	606.0	8.66	943.7	7.47
Argentina	217.6	4.55	343.6	4.91	359.7	2.88
Mexico	43.9	0.92	56.9	0.81	83.8	0.66
Paraguay	6.3	0.13	23.1	0.33	34.3	0.27
Uruguay	12.6	0.26	16.9	0.24	93.0	0.74
Andean Group	112.0	2.34	165.5	2.37	372.9	2.98
Bolivia	11.8	0.25	20.7	0.30	30.4	0.24
Chile	22.9	0.48	36.7	0.53	137.5	1.09
Colombia	4.8	0.10	6.4	0.09	16.7	0.03
Ecuador	3.5	0.07	3.7	0.05	3.0	0.02
Peru	15.2	0.32	20.0	0.29	20.7	0.16
Venezuela	53.9	1.13	78.0	1.11	164.6	1.30
Central American Common Market	.2	0.01	2.5	0.04	.5	3/
Costa Rica	2/	3/	2/	3/	2/	3/
El Salvador	-	-	2.2	0.03	.4	3/
Guatemala	2/	3/	.1	3/	.1	3/
Honduras	.1	3/	.2	3/	2/	3/
Nicaragua	.1	3/	2/	3/	2/	3/
Other Latin America	24.0	0.50	37.0	0.53	43.8	0.35
Cuba	-	-	-	-	-	-
Dominican Republic	2/	3/	.1	3/	-	-
Haiti	-	-	2/	3/	2/	3/
Panama	24.0	0.50	36.9	0.53	43.8	0.35
Caribbean Free Trade Assn.	13.6	0.28	13.5	0.19	12.1	0.10
Barbados	-	-	-	-	-	-
Guyana	-	-	.6	0.01	1.1	0.01
Jamaica	2/	3/	.1	3/	2/	3/
Trinidad -Tobago	13.0	0.27	12.8	0.18	11.0	0.09
Others	-	-	3/	3/	2/	3/
Other Western Hemisphere	17.5	0.37	26.6	0.38	72.0	0.57
Netherlands Antilles	14.9	0.31	24.7	0.35	62.0	0.49
Bahamas	2.3	0.05	1.3	0.02	4.3	0.03

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Others	2/	3/	.1	0.61	.3	0.01
U.S. and Canada	450.4	35.65	988.9	34.71	1,439.5	30.09
Latin America	260.9	20.65	322.0	11.30	416.6	8.71
Other Western Hemisphere	20.9	1.65	20.0	0.70	31.2	0.65
Total, Western Hemisphere	732.1	57.95	1,331.0	46.71	1,887.3	39.46
European Free Trade Assn.	53.5	4.23	152.9	5.36	200.3	5.41
Austria	2.3	0.18	6.3	0.22	11.2	0.30
Norway	10.4	0.82	22.3	0.78	28.7	0.78
Portugal	1.6	0.13	12.0	0.42	12.4	0.34
Sweden	23.3	1.84	53.3	1.87	75.7	2.05
Switzerland	16.0	1.27	59.0	2.07	72.2	1.95
European Economic Community	265.9	21.05	815.0	28.61	1,107.4	29.92
Belgium-Luxemburg	14.7	1.16	44.4	1.56	58.8	1.59
Denmark	18.0	1.42	23.7	0.83	26.8	0.73
France	51.1	4.05	88.6	3.11	145.8	3.94
Ireland	-	-	.5	0.02	1.2	0.03
Italy	26.4	2.09	87.8	3.08	123.6	3.34
Netherlands	15.0	1.19	49.8	1.75	60.0	1.62
United Kingdom	37.5	2.97	160.9	5.65	216.2	5.84
West Germany	103.3	8.17	359.5	12.62	474.9	12.83
Other Western Europe	32.9	2.61	49.4	1.73	84.6	2.29
Finland	7.8	0.62	14.2	0.50	20.4	0.55
Greece	1.3	0.10	.5	0.02	.6	0.02
Iceland	.8	0.06	1.8	0.06	1.9	0.05
Spain	11.0	0.87	32.2	1.13	48.8	1.32
Turkey	-	-	.2	0.01	.5	0.01
Yugoslavia	12.0	0.12	.6	0.02	12.4	0.33
Others	-	-	-	-	-	-
Mutual Economic Assistance Council	68.4	5.41	58.6	2.06	109.8	2.97

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974¹/₂

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Others	.3	0.01			5.7	0.04
U.S. and Canada	1,439.5	30.09	2,130.5	30.44	3,483.0	27.57
Latin America	416.6	8.71	645.5	9.22	988.0	7.82
Other Western Hemisphere	31.2	0.65	40.1	0.57	84.2	0.67
Total, Western Hemisphere	1,887.3	39.46	2,816.1	40.24	4,555.2	36.05
European Free Trade Assn.	278.1	5.81	424.4	6.06	581.3	4.60
Austria	28.0	0.59	20.7	0.30	32.1	0.25
Norway	38.1	0.80	59.2	0.85	69.3	0.55
Portugal	16.3	0.34	21.7	0.31	40.9	0.32
Sweden	95.2	1.99	160.9	2.30	240.9	1.91
Switzerland	100.5	2.10	161.8	2.31	198.1	1.57
European Economic Community	1,479.8	30.94	1,931.0	27.60	3,160.9	25.02
Belgium-Luxemburg	71.1	1.49	110.8	1.58	306.3	2.42
Denmark	33.0	0.69	32.0	0.46	43.4	0.34
France	184.3	3.85	241.3	3.45	304.7	2.41
Ireland	1.7	0.04	9.7	0.14	5.3	0.04
Italy	200.8	4.20	215.2	3.07	341.7	2.70
Netherlands	116.2	2.43	165.9	2.37	243.6	1.93
United Kingdom	219.5	4.59	272.1	3.89	323.5	2.56
West Germany	653.2	13.66	883.9	12.63	1,592.4	12.60
Other Western Europe	102.7	2.14	152.4	2.18	195.0	1.54
Finland	25.0	0.52	31.5	0.45	43.7	0.35
Greece	.7	0.02	6.9	0.10	1.4	0.01
Iceland	2.1	0.04	2.8	0.04	2.2	0.02
Spain	72.5	1.52	85.8	1.23	119.5	0.95
Turkey	1.2	0.03	2.3	0.03	19.2	0.15
Yugoslavia	1.1	0.02	23.1	0.33	8.9	0.07
Others	-	-	2/	3/	2/	3/
Mutual Economic Assistance Council	90.5	1.89	98.5	1.41	156.1	1.24

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

	1964			1970			1971		
	Value	Percent of total		Value	Percent of total		Value	Percent of total	
Bulgaria	2.3	0.18		2/	3/		4.2	0.11	
Czechoslovakia	12.5	0.99		10.1	0.35		12.2	0.33	
East Germany	11.9	0.94		24.7	0.87		26.2	0.71	
Hungary	3.0	0.24		5.3	0.19		4.8	0.13	
Poland	10.1	0.80		11.1	0.39		50.1	1.35	
Rumania	1.0	0.08		3.9	0.14		8.0	0.22	
U.S.S.R.	27.6	2.18		3.5	0.12		4.3	0.12	
Western Europe	352.4	27.89	1,017.4		35.71		1,392.3	37.63	
Eastern Europe	68.4	5.41	58.6		2.06		109.8	2.97	
Total Europe	420.7	33.30	1,076.0		37.77		1,502.1	40.59	
Middle East	63.0	4.99	157.9		5.54		272.8	7.37	
Egypt (U.A.R.)	2/	3/	10.6		0.37		15.1	0.41	
Israel	1.4	.11	3.5		0.12		4.2	0.11	
Jordan	-	-	-		-		-	-	
Lebanon	2/	3/	2/		3/		2/	3/	
Syria	-	-	2/		3/		-	-	
"Oil States"	61.6	4.87	143.7		5.04		253.5	6.85	
Gulf states	-	-	5.5		0.19		18.9	0.51	
Iran	2/	3/	11.8		0.41		8.3	0.23	
Iraq	28.9	2.29	48.1		1.69		58.9	1.59	
Kuwait	13.8	1.09	20.7		0.73		34.3	0.93	
Saudi Arabia	18.8	1.49	57.6		2.02		131.2	3.55	
Yemen	-	-	-		-		1.7	0.05	
North Africa (excluding Middle East	4.0	0.32	38.2		1.34		56.9	1.54	
"Oil States"	4.0	0.32	36.2		1.28		54.2	2.46	
Algeria	4.0	0.32	26.3		0.93		40.0	1.08	
Libya	-	-	9.9		0.35		14.2	0.38	
Morocco	2/	3/	1.0		0.03		.6	0.01	
Tunisia	-	-	.9		0.03		2.1	0.06	
Middle East and North Africa	67.0	5.30	196.0		6.88		329.7	8.91	

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Bulgaria	4.7	0.10	2.4	0.03	5.4	0.04
Czechoslovakia	19.6	0.41	19.3	0.28	21.7	0.17
East Germany	17.7	0.37	20.5	0.29	23.7	0.19
Hungary	4.6	0.10	11.7	0.17	11.9	0.09
Poland	33.3	0.70	26.4	0.38	23.5	0.19
Rumania	2.8	0.06	5.7	0.08	14.0	0.11
U.S.S.R.	7.7	0.16	12.5	0.18	55.9	0.44
Western Europe	1,860.6	38.90	2,507.8	35.83	3,937.2	31.16
Eastern Europe	90.5	1.89	98.5	1.41	156.1	1.24
Total Europe	1,951.1	40.79	2,606.3	37.24	4,093.3	32.40
Middle East	377.4	7.89	767.2	10.96	2,090.4	16.54
Egypt (U.A.R.)	.3	0.01	5.0	0.07	15.0	0.12
Israel	3.5	0.07	8.4	0.12	16.2	0.13
Jordan	-	-	-	-	-	-
Lebanon	1.0	0.02	.9	0.01	14.7	0.12
Syria	2/	3/	2/	3/	2/	3/
"Oil States"	372.6	7.79	752.9	10.76	2,044.5	16.18
Gulf states	11.9	0.25	3.4	0.05	77.4	0.61
Iran	3.2	0.07	57.3	0.82	52.3	0.41
Iraq	97.2	2.03	207.2	2.96	596.7	4.72
Kuwait	40.7	0.85	99.1	1.42	131.2	1.04
Saudi Arabia	219.6	4.59	385.9	5.51	1,186.9	9.39
Yemen	-	-	-	-	2/	3/
North Africa (excluding Middle East	72.9	1.52	76.7	1.10	516.0	4.08
"Oil States"	54.2	1.34	64.4	0.92	428.2	3.39
Algeria	44.5	0.93	3.0	0.04	110.5	0.87
Libya	19.7	0.41	61.4	0.88	317.7	2.51
Morocco	5.7	0.12	6.8	0.10	37.8	0.30
Tunisia	2.9	0.06	5.4	0.08	50.1	0.40
Middle East and North Africa	450.3	9.41	843.9*	12.06	2,606.4	20.63

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Sub-Saharan Africa	1.0	0.08	45.4	1.59	64.0	1.73
Angola	-	-	-	-	1.1	0.03
Ethiopia	-	-	2/	3/	2/	3/
Ghana	-	-	2/	3/	2/	3/
Ivory Coast	-	-	2/	3/	-	-
Liberia	2/	3/	-	-	-	-
Mozambique	-	-	2/	3/	.3	0.01
Nigeria	2/	3/	28.9	1.01	31.2	0.84
Senegal	.1	3/	2/	3/	2/	3/
Somalia	-	-	-	-	-	-
Sudan	2/	3/	2/	3/	2/	3/
Union of South Africa	.6	0.05	2.3	0.08	4.2	0.11
Zaire (Republic of Congo)	-	-	2.9	0.10	5.9	0.16
Zambia	.1	3/	11.3	0.40	20.8	0.56
Others	.3	0.02	2/	3/	.4	0.01
Mainland China	.6	0.05	2/	3/	.1	3/
Japan	33.8	2.68	177.8	6.24	260.4	7.04
Asia and Oceania (excluding Mainland China and Japan)	8.1	0.64	22.9	0.81	23.5	0.63
Australia	.4	0.03	4.8	0.17	3.3	0.09
Hong Kong	2/	3/	3.2	0.11	4.7	0.13
India	.4	0.03	.4	0.01	1.5	0.04
Indonesia	2/	3/	-	-	-	-
Malaysia & Singapore	4.7	0.38	6.5	0.23	9.8	0.27
New Zealand	-	-	2/	3/	1.1	3/
North Korea	-	-	-	-	-	-
Pakistan	2/	3/	3.0	0.10	.1	3/
Philippine Islands	2/	3/	.4	0.01	.8	0.02
South Korea	-	-	.1	3/	.1	3/
South Vietnam	-	-	-	-	2/	3/
Sri Lanka (Ceylon)	-	-	-	-	2/	3/

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974¹/₂

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Sub-Saharan Africa	98.1	2.05	107.7	1.54	148.1	1.17
Angola	.7	.02	3.1	0.04	1.9	0.02
Ethiopia	2/	3/	2/	3/	2/	3/
Ghana	-	-	.5	0.01	2.9	0.02
Ivory Coast	-	-	2/	3/	2/	3/
Liberia	-	-	.1	3/	2/	3/
Mozambique	2/	3/	2.2	0.03	3.1	0.02
Nigeria	23.8	0.50	6.5	0.09	.1	3/
Senegal	-	-	2/	3/	2.4	0.02
Somalia	-	-	-	-	-	-
Sudan	-	-	2/	3/	2/	3/
Union of South Africa	7.8	0.16	16.8	0.24	28.0	0.22
Zaire (Republic of Congo)	8.8	0.18	15.4	0.22	40.4	0.32
Zambia	49.5	1.04	58.9	0.84	62.4	0.49
Others	7.5	.16	4.1	0.06	6.9	0.05
Mainland China	.2	3/	.4	0.01	.4	3/
Japan	365.6	7.64	549.4	7.85	1,093.7	8.66
Asia and Oceania (excluding Mainland China and Japan)	30.7	0.64	75.1	1.07	138.1	1.09
Australia	9.0	0.19	10.6	0.15	11.5	.09
Hong Kong	6.9	0.14	10.5	0.15	15.2	0.12
India	.5	0.01	1.1	0.02	4.7	0.04
Indonesia	-	-	2/	3/	.2	3/
Malaysia & Singapore	7.8	0.16	26.4	0.38	45.3	0.36
New Zealand	.1	3/	8.4	0.12	4.8	0.04
North Korea	-	-	.1	3/	2/	3/
Pakistan	1.9	0.04	.1	3/	1.5	0.01
Philippine Islands	.2	1/	2.0	0.03	1.7	0.01
South Korea	2.1	0.04	4.1	0.06	30.6	0.24
South Vietnam	-	-	-	-	2/	3/
Sri Lanka (Ceylon)	-	-	.1	3/	2.8	0.02

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974¹

(Values in millions of US dollars)

	1964		1970		1971	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Taiwan	-	-	4.5	0.16	2.9	0.08
Thailand	2.5	0.19	.1	3/	.1	3/
Others	-	-	2/	3/	2/	3/
Asia and Oceania	42.5	3.37	200.8	7.05	284.0	7.67
Total imports	1,263.5	100.00	2,849.2	100.00	3,701.5	100.00

Table 11. Brazil: Imports by Areas, Blocs, and Countries, Value and Percentage of Total Value, 1964, 1970-73, and in f.o.b. Values, 1974^{1/}

(Values in millions of US dollars)

	1972		1973		1974	
	Value	Percent of total	Value	Percent of total	Value	Percent of total
Taiwan	1.7	0.04	5.0	0.07	10.1	0.08
Thailand	2/	3/	1.6	0.02	.5	3/
Others	.5	0.01	5.0	0.07	9.5	0.07
Asia and Oceania	396.5	8.29	625.0	8.93	1,232.2	9.75
Total imports	4,183.3	100.00	6,999.0	100.00	12,635.2 ^{1/}	100.00

Footnotes:

- 1/ Available data for 1974 are on an f.o.b. basis. Total imports on a c.i.f. basis, as given by the source, amounted to \$14,161.5 million (12.08 percent higher than the c.i.f. figure).
- 2/ Less than \$50,000.
- 3/ Less than 0.005 percent
- 4/ Included in "Others" under the "Other Western Hemisphere" group.

Sources: 1964 data, Ministerio da Fazenda, Servico de Estatistica Economica e Financeira, Comercio Exterior, 1964; 1970-73 data, respective issues of Ministerio da Fazenda, Centro de Informacoes Economico-Fiscais, Comercio Exterior do Brasil, Importacao; 1974 data, Banco do Brasil, Carteira de Comercio Exterior (CACEX), Comercio Exterior, Exportacao, 1974.

Table No. 12. Brazil: Value of Principal Imports Grouped According to the Standard International Trade Classification, and the Three Principal Supplying Countries/ in each Group, 1964 and 1972-1973 (millions of U.S. dollars)

	1964			1972			1973		
	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers	
<u>Foodstuffs</u>									
Fish, fresh or simply prepared	13.8	Norway 4.3, Denmark 4.0, Spain 3.1	31.1	Norway 20.8, Spain 7.3, Iceland 2.0	52.4	Norway 34.9, Spain 9.9, Argentina 3.3			
Wheat and spelt, unmilled	209.6	U.S. 139.8, Argentina 69.8	141.2	Argentina 76.9, U.S. 37.1, Canada 23.3	376.9	U.S. 231.5, Argentina 104.1, Canada 41.1			
Cereal preparations	8.9	Argentina 2.6, Denmark 1.6, Czechoslovakia 1.5	24.3	U.S. 4.9, France 3.5, Argentina 2.6	29.2	U.S. 5.6, Argentina 5.2, France 4.2			
Fresh fruit and edible nuts	13.4	Argentina 11.9, Spain .5, Portugal .5	33.8	Argentina 32.6, U.S. 4.5, France 2.3	64.0	Argentina 33.8, U.S. 7.5, Chile 7.1			
Vegetables, roots, and tubers, fresh or dried	12.0	Argentina 6.7, U.S. 1.9, Chile .9	n.a.	-	63.3	Argentina 20.9, Spain 15.7, U.S. 12.6			
<u>Fuels</u>									
Coal, coke, briquettes	29.5	U.S. 24.9, Germany 4.6, Belgium-Luxembourg .1	59.5	U.S. 45.9, Germany 8.0, Poland 2.3	57.0	U.S. 41.0, Germany 8.1, Poland 4.7			
Petroleum, crude and partly refined	170.4	Venezuela 74.3, Iraq 28.9, U.S.S.R. 25.2	487.1	Saudi Arabia 208.5, Iraq 96.7, Algeria 44.5	853.4	Saudi Arabia 362.8, Iraq 207.2, Kuwait 8.2			
Petroleum products	44.6	U.S. 17.3, Netherlands Antilles 15.4, Venezuela 6.0	79.6	U.S. 28.9, Netherlands Antilles 12.8, Trinidad-Tobago 12.8	130.8	U.S. 32.8, Netherlands Antilles 21.0, Saudi Arabia 20.0			
<u>Crude materials, inedible, except fuels</u>									
Crude rubber, including synthetic and reclaimed	13.8	Malaysia-Singapore 4.7, U.S. 4.7, France 3.1	23.6	U.S. 10.4, Singapore 2.8, Malaysia 2.8	47.4	U.S. 17.1, Singapore 12.1, Malaysia 8.5			

Table 12. (cont'd)

2.

	1974		1972		1973	
	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers
Pulp and waste paper	5.4	Sweden 1.8, Finland 1.3, U.S. 1.1	29.0	U.S. 12.1, Sweden 5.6, Canada 4.1	35.9	Sweden 16.9, U.S. 7.7, Angola 2.4
Crude fertilizers	4.9	U.S. 2.9, Chile 1.4, Togo .3	14.1	U.S. 10.1, Chile 1.5, Morocco 1.3	20.6	U.S. 12.5, Morocco 3.5, Chile 1.7
Chemicals						
Organic chemicals	46.5	U.S. 12.5, France 10.3, Germany 9.2	188.8	U.S. 69.4, Germany 35.9, Japan 12.3	301.8	U.S. 112.1, Germany 59.2, France 12.8
Inorganic chemicals: elements, oxides, halogen salts	20.4	U.S. 6.5, Germany 5.6, U.K. 3.4	50.3	U.S. 18.7, Germany 10.4, Italy 2.4	69.8	U.S. 20.3, Germany 12.6, Mexico 7.1
Other inorganic chemicals	9.2	U.K. 1.9, Germany 1.5, U.S. 1.4	36.3	Germany 8.5, U.S. 5.0, France 4.6	50.7	Germany 12.9, U.S. 5.7, Mexico 4.0
Synthetic organic dyestuffs and natural indigo	7.8	Germany 2.8, Switzerland 2.6, U.K. 1.1	29.6	Germany 12.5, Switzerland 8.2, U.K. 4.0	44.0	Germany 18.7, Switzerland 12.2, U.K. 7.0
Medicinal and pharmaceutical products	9.5	U.S. 3.5, Switzerland 1.2, Germany 1.0	53.0	U.S. 10.3, Germany 9.2, Switzerland 8.5	81.9	U.S. 14.1, Switzerland 14.1, Germany 13.7
Manufactured fertilizers	19.2	Germany 5.7, U.S. 5.7, Belgium 1.7, Luxembourg 1.7	155.0	U.S. 91.1, Germany 16.1, Netherlands Antilles 12.6	167.1	U.S. 94.4, Germany 16.1, Netherlands Antilles 11.1
Plastic materials, artificial resins	6.6	U.S. 3.1, Germany 1.4, Netherlands Antilles 3.4	75.2	U.S. 27.4, Germany 15.8, Japan 12.3	101.7	U.S. 38.1, Germany 25.4, Japan 8.4
Miscellaneous chemical materials and products	22.3	U.S. 14.3, Germany 2.3, Mexico 2.3	109.8	U.S. 51.9, Germany 17.0, France 7.4	106.6	U.S. 66.9, Germany 27.5, France 14.1

Table 12. (cont'd)

	1964		1972		1973	
	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers
<u>Iron and steel mill products</u>						
<u>Ingots and other primary forms</u>	n.a.	-	32.4	Spain 16.4, U.S. 5.6, U.K. 5.2	45.0	Spain 15.4, U.S.
Bars, rods, angles, shapes sections	5.5	Germany 1.2, Argentina 1.2, Sweden 1.1	23.9	Germany 6.6, Argentina 3.5, Japan 3.3	52.5	Argentina 14.5, U.S. 10.6, Japan 8.2
Universals, plates and sheets	27.2	Japan 11.9, U.S. 4.6, U.K. 1.3	105.4	Japan 50.5, Germany 16.4, U.S. 12.5	295.6	Japan 103.8, U.S. 65.2, Germany 46.4
Tubes, pipes, and fittings	5.8	Czechoslovakia 2.5, Japan 1.0, U.S. .9	30.9	U.S. 11.1, Sweden 4.8, U.K. 3.4	33.6	U.S. 9.1, Sweden 6.1, Germany 5.1
<u>Non-ferrous metals</u>						
<u>Copper</u>						
	21.3	Chile 16.7, Peru 3.0, Mexico .7	100.1	Zambia 48.8, U.S. 17.8, Chile 9.6	165.5	Zambia 54.8, U.S. 37.4, Netherlands 16.8
Aluminum	9.9	Canada 4.5, Peru 2.3, U.S. 1.5	31.2	France 7.4, Canada 6.8, Norway 6.8	45.1	U.S. 9.0, Norway 7.6, France 7.5
Zinc	10.5	Peru 5.3, Mexico 1.4, Belgium-Luxembourg .8	21.9	Peru 8.2, Mexico 6.5, Canada 1.9	43.6	Peru 13.0, Belgium-Luxembourg 6.8, Netherlands 5.6
Tools for hand use or in machines	9.8	U.S. 4.0, Germany 2.3, France .7	27.5	U.S. 9.7, Germany 6.9, U.K. 1.5	36.8	U.S. 11.0, Germany 11.0, Sweden 2.1
<u>Machinery other than electric</u>						
<u>Power generating machinery</u>	26.2	U.S. 10.0, Germany 4.8, Italy 3.7	93.2	U.S. 25.5, Germany 16.4, Italy 14.0	108.2	U.S. 33.3, Germany 16.4, Japan 12.1
Agricultural machinery and implements	8.3	Italy 1.8, U.S. 1.4, Yugoslavia 1.4	142.5	U.S. 86.0, Italy 21.9, Japan 15.4	127.5	U.S. 74.5, Italy 19.1, Japan 14.3
Office machines	14.8	U.S. 4.2, Germany 2.6, U.K. 1.9	100.1	U.S. 29.7, Germany 15.0, Japan 12.3	139.8	U.S. 41.8, Japan 27.5, Germany 11.3

Table 12 (cont'd)

4.

	1964			1972			1973		
	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers	
Metalworking machinery	32.0	Germany 15.4, U.S. 6.9, France 4.1	158.0	Germany 44.8, U.S. 37.7, U.K. 23.1	174.8	Germany 70.4, U.S. 47.7, Italy 8.7			
Textile and leather machinery	10.8	Germany 3.6, U.S. 2.5, France 1.2	132.0	Germany 53.5, Switzerland 17.8, U.S. 14.3	165.0	Germany 67.2, Switzerland 18.6, Japan 14.7			
Machines for special industries	27.3	U.S. 14.0, East Germany 4.8, Germany 2.6	160.5	U.S. 54.4, Germany 47.9, Japan 12.9	165.3	U.S. 63.6, Germany 40.3, Italy 11.3			
Miscellaneous machinery and parts	63.4	U.S. 19.9, Germany 13., France 6.6	493.5	U.S. 133.2, Germany 118.5, Japan 55.7	549.6	U.S. 164.0, Germany 120.8, Japan 75.1			
<u>Electric machinery, apparatus, and appliances</u>									
Electric power machinery and switch gear	28.0	U.S. 11.8, Japan 3.4, Italy 2.8	158.1	U.S. 53.1, Germany 30.3, Japan 14.5	177.1	U.S. 57.8, Germany 38.2, France 16.3			
Telecommunications apparatus	9.7	U.S. 3.0, Sweden 2.5, Germany 1.3	86.3	U.S. 20.3, Japan 16.2, Sweden 15.7	165.8	U.S. 45.6, Sweden 34.4, Japan 30.7			
Miscellaneous electric machinery and apparatus	19.1	U.S. 7.4, Japan 3.0, Netherlands 2.8	118.5	U.S. 45.6, Germany 18.7, Japan 14.5	186.1	U.S. 77.8, Germany 30.9, Japan 27.0			
<u>Transport equipment</u>									
Railway vehicles	17.6	U.S. 16.3, Japan .7, France .1	31.8	U.S. 15.3, Spain 12.4, Japan 3.2	65.8	U.S. 22.1, Yugoslavia 21.3, Spain 8.7			
Road motor vehicles	24.6	U.S. 19.0, Germany 16.0, Italy 11.5	54.7	U.S. 23.5, Germany 8.0, U.K. 6.1	77.5	U.S. 30., Germany 17.4, Japan 7.2			
Aircraft	14.2	U.S. 8.7, France 4.5, U.K. 1.0	91.1	U.S. 60.3, Italy 16.1, U.K. 9.0	135.4	U.S. 102.9, Italy 11.6, U.K. 7.6			

Table 12 (cont'd)

5.

	1964		1972		1973	
	Total	Three principal suppliers	Total	Three principal suppliers	Total	Three principal suppliers
Ships and boats	6.1	Yugoslavia 5.3, U.S. .4, Spain .4	47.5	Poland 18.8, Germany 9.3, U.S. 6.6	57.9	U.S. 24.2, Poland 12.5, Japan 11.7
Scientific instruments; photographic goods; watches and clocks	14.3	U.S. 5.2, Germany 3.6, Mexico 1.4	95.6	U.S. 41.7, Germany 16.0, Japan 12.5	129.1	U.S. 59.1, Germany 20.1, Japan 16.5
Optical, medical, and measuring instruments, etc.	5.1	U.S. 2.0, Germany .8, Belgium-Luxembourg .7	27.5	U.S. 10.9, Belgium-Luxembourg 43.7, Mexico 3.1	53.1	U.S. 14.0, Belgium-Luxembourg 5.6, Germany 4.3
Photographic and cinematographic supplies	1.8	Switzerland 1.5, Japan .1, France .1	27.5	Switzerland 11.2, Japan 3.8, U.S. 3.5	53.1	Switzerland 25.1, Japan 10.7, Hong Kong 5.3
Watches and clocks	1.5	Japan .3, U.S. .3, Netherlands .2	32.5	Japan 10.8, U.S. 7.7, Panama 4.0	46.1	Japan 18.0, U.S. 8.2, Netherlands 5.3
Musical instruments, phonographs, records	1,082.6		4,045.8		5,985.5	
Total groups listed	1,263.5		4,783.3		6,999.0	
Groups listed as percentage of total	85.7		84.5		85.5	

1/ In this table, "Germany" is used as an abbreviation for "West Germany."
 2/ Less than \$50,000.

Sources: Ministerio de Fazenda, Foreign Trade of Brazil According to the Standard International Trade Classification (SITC), issues for 1964, 1972, and 1973 (1964, Serviço de Estatística e Económica Financeira; 1972 and 1973, Secretaria da Receita Federal, Centro de Informacoes Economico-Fiscais).

Table 13. U.S. Exports to Brazil, by Major Groups and Important Sub-Groups, Value and Percentage Share, 1964 and 1971-74, and Percentage Changes in Value, 1964-73 and 1973-74

(Values in millions of U.S. dollars)

	Value				Percent of value				Percentage changes in value			
	1964	1971	1972	1974	1964	1971	1972	1974	1964-73	1973-74		
Food and live animals	132.8	78.0	59.2	251.3	195.2	34.4	8.1	4.8	13.2	6.4	89	- 29
Wheat and wheat flour	(116.5)	(52.1)	(37.4)	(215.7)	(171.1)	(30.2)	(5.4)	(3.0)	(11.3)	(5.6)	(85)	(- 26)
Beverages and tobacco	<u>1</u>	.1	.4	2.0	3.1	<u>2</u>	<u>2</u>	<u>2</u>	0.1	0.1	3,000	55
Crude materials, inedible, etc. fuel	11.8	35.3	48.2	60.8	115.3	3.1	3.7	3.9	3.2	3.8	415	90
Mineral fuels, lubricants, etc.	25.3	64.8	63.6	67.2	116.5	6.6	6.7	5.2	3.5	3.8	166	73
Coal and coke	(11.0)	(36.6)	(38.0)	(34.2)	(54.7)	(2.8)	(3.8)	(3.1)	(1.8)	(1.8)	(211)	(60)
Petroleum products	(14.3)	(28.0)	(25.5)	(32.9)	(61.8)	(3.7)	(2.9)	(2.1)	(1.7)	(2.0)	(67)	(88)
Oils and fats, animal and vegetable	5.2	7.4	4.9	10.8	31.7	1.3	0.8	0.4	0.6	1.0	108	194
Chemicals	54.6	166.3	257.1	339.3	675.3	14.1	17.3	20.8	17.8	22.0	521	99
Organic chemicals	(11.2)	(48.9)	(68.6)	(102.7)	(196.7)	(2.9)	(5.1)	(5.6)	(5.4)	(6.4)	(817)	(92)
Fertilizers	(7.0)	(38.3)	(83.3)	(86.8)	(168.7)	(1.8)	(4.0)	(6.8)	(4.6)	(5.5)	(1140)	(94)
Synthetic resins & plastic materials	(0.2)	(19.0)	(21.9)	(33.3)	(100.9)	(0.1)	(2.0)	(1.8)	(1.7)	(3.3)	(16,550)	(203)
Manufactured goods, by chief material	23.2	98.9	94.3	226.9	486.1	6.0	10.3	7.6	11.9	15.8	878	114
Iron and steel	(5.7)	(34.4)	(33.0)	(107.7)	(257.3)	(1.5)	(3.6)	(2.7)	(5.7)	(8.4)	(1,789)	(139)
Nonferrous metals	(5.8)	(29.0)	(27.0)	(59.9)	(100.7)	(1.5)	(3.0)	(2.2)	(3.1)	(3.3)	(933)	(68)
Machinery and transport equipment	108.3	453.2	612.6	823.3	1,297.9	28.0	47.1	49.6	43.3	42.3	660	58
Non-electrical machinery	(64.6)	(259.5)	(356.4)	(409.5)	(620.2)	(16.7)	(27.0)	(28.9)	(21.5)	(20.2)	(534)	(51)
Electrical machinery	(18.0)	(74.4)	(106.9)	(167.8)	(226.3)	(4.7)	(7.7)	(8.7)	(8.8)	(7.4)	(832)	(35)
Transport equipment	(25.7)	(119.3)	(149.3)	(246.0)	(451.5)	(6.6)	(12.4)	(12.1)	(12.9)	(14.7)	(857)	(84)
Miscellaneous manufactured articles	12.6	50.3	71.9	90.5	125.5	3.3	5.2	5.8	4.8	4.1	618	39
Items not classified by kind	12.3	7.0	7.0	10.4	17.0	3.2	0.7	0.6	0.5	0.6	- 18	63

Table 13. U.S. Exports to Brazil, by Major Groups and Important Sub-Groups, Value and Percentage Share, 1964 and 1971-74, and Percentage Changes in Value, 1964-73 and 1973-74 (cont'd)

(Values in millions of U.S. dollars)

	Value				Percent of value				Percentage changes in value			
	1964	1971	1972	1973	1974	1964	1971	1972	1973	1974	1964-73	1973-74
Special categories	-	1.5	15.7	20.8		.1	0.1	1.3	1.1	0.1		- 433
Total exports to Brazil	386.2	962.7	1,235.0	1,903.3	3,067.7	100.0	100.0	100.0	100.0	100.0	393	61
Total U.S. exports and Brazilian share	26,086.0	43,497.2	48,876.2	71,314.0	97,143.4	1.4	2.2	2.5	2.7	3.2	173	36

Footnotes:

1/ Less than \$500,000

2/ Less than 0.1 percent

NOTE: Due to rounding, totals may not add.

Sources: U.S. Department of Commerce, Bureau of the Census: 1964 data from FT 420, 1964 Annual, U.S. Exports, Country by Commodity Groupings; 1971-74 data from processed material for the respective periods issued as EM 450/455, U.S. ExportsTable 4 - Exports of Domestic Merchandise, World Area of Destination by Schedule B Subgroup and Country of Destination by Schedule B Commodity Groupings and Method of Transportation.

Table 14. U.S. Imports from Brazil, by Major Groups, Value,^{1/} and Percentage Share, 1964 and 1971-74 (values in millions of dollars)

	Value					Percent of Value				
	1964	1971	1972	1973	1974	1964	1971	1972	1973	1974
Food and live animals	438.2	574.5	654.8	685.9	967.6	81.9	75.4	69.5	68.0	56.8
Coffee beans	(377.7)	(330.0)	(360.2)	(369.7)	(236.2)	(70.6)	(43.3)	(38.3)	(31.3)	(13.9)
Beverages and tobacco	3.2	4.2	8.8	13.1	14.7	0.6	0.6	0.9	1.1	0.9
Crude materials, in- edible, exc. fuel	58.3	56.4	51.8	97.3	142.6	10.9	7.5	5.4	8.2	8.4
Mineral fuels, lubricants, etc.	.5	2.3	4.3	14.1	2.0	0.1	0.3	0.5	1.2	0.1
Oils and fats, animal and vegetable	16.5	14.8	20.2	37.8	72.2	3.1	1.9	2.2	3.2	4.2
Chemicals	6.7	12.4	16.4	23.4	57.8	1.3	1.6	1.8	2.0	3.4
Manufactured goods, by chief material	8.3	45.7	95.9	103.8	143.8	1.5	6.0	10.2	8.8	8.4
Machinery and transport equipment	.5	10.6	24.7	71.7	151.0	0.1	1.4	2.6	6.1	8.9
Miscellaneous manu- factured articles	.5	30.3	56.6	122.1	138.6	0.1	4.0	6.0	10.3	8.1
Items not classified by kind	2.1	16.2	8.4	13.8	14.5	0.4	1.3	0.9	1.1	0.8
Total imports from Brazil	534.9	761.8	941.6	1,183.0	1,704.8	100.0	100.0	100.0	100.0	100.0
Total US imports and Brazilian share	18,599.9	45,602.1	55,555.2	69,121.2	100,972.3	2.9	1.7	1.7	1.7	1.7

^{1/} U.S. Customs value, which excludes charges incurred in bringing the merchandise to the U.S.

Sources: U.S. Department of Commerce, Bureau of the Census: 1964 Data from FT 125, December 1964, U.S. Imports of Merchandise for Consumption: SITC Group Total: Commodity by Country, Area by Commodity, Country by Commodity; 1971-74 data from processed material for the respective periods issued as IM 150/155, U.S. General Imports, Schedule A Commodity Groupings.. Table 4 - World Area of Origin by Schedule A Subgroup and Country of Origin by Schedule A Commodity Groupings and Method of Transportation

Table 15. U.S. Imports from Brazil: Principal Commodities^{1/},
Value (f.o.b. basis), 1964 and 1971-74, and Percentage Growth,
1964-73 and 1973-74
(millions of dollars)

	1964	1971	1972	1973	1974	1964-73	1973-74
Meat and meat preparations	3.9	52.9	36.6	40.2	46.9	931	17
Fish, fresh or simply prepared	3.4	17.9	29.2	29.2	34.4	759	18
Nuts, edible, not for oil	7.0	10.9	17.8	20.7	19.3	196	-7
Fruit and vegetable juices, unfermented	.7	5.3	13.7	6.0	7.5	757	25
Sugar, raw or refined	21.9	86.3	95.9	96.2	402.2	339	318
Molasses	-	3.9	6.6	13.6	19.1	249*	40
Coffee beans	377.7	330.0	360.2	369.7	236.2	2	-57
Coffee extracts, essences, concentrates	2/	23.7	38.0	44.5	66.0	88*	48
Cocoa beans	17.1	28.5	33.2	36.3	77.6	112	114
Cocoa powder and cake	.5	3.0	5.6	5.6	9.0	1,020	61
Cocoa butter and paste	2.7	3.1	9.1	12.7	31.9	370	151
Pepper and pimento	1.4	5.1	3.3	4.3	5.1	207	19
Tobacco and tobacco manu- factures	3.2	4.1	8.8	13.1	14.7	309	12
Hides and skins, etc. fur, undressed	6.5	1.6	.9	.2	.5	-3,150	150
Wood, shaped or simply worked	2.2	9.1	14.4	26.6	21.0	1,109	-27
Sisal, etc.	7.1	.8	.7	1.0	1.9	610	90
Iron ores and concentrates	11.7	16.5	12.0	36.3	85.3	210	135
Manganese ores and concen- trates	18.5	14.9	8.2	15.5	15.1	19	-3
Nonferrous metal ores and concentrates, n.e.s.	.8	2.8	3.0	3.5	4.0	338	14
Castor oil	9.3	10.5	15.6	32.6	39.7	250	22
Waxes of animal or vegetable origin	5.7	3.7	4.0	4.4	11.2	30	155
Organic chemicals	4.8	9.3	11.9	17.2	44.6	258	159
Leather	2.0	3.6	8.5	9.0	8.2	350	-10
Wood veneers, plywood, etc.	.6	5.0	7.1	8.4	7.9	1,300	6
Wood manufactures	.1	1.0	1.9	3.3	3.2	3,200	-3
Paper and paperboard	.2	2.9	4.5	6.4	9.0	3,100	41

Table 15. (cont'd)

Footnotes:

- 1/ Items in sub-groups may, but do not necessarily, add to sum of subdivided headings.
2/ Less than \$50,000
* Percentage growth 1971-73

Sources: U.S. Department of Commerce, Bureau of the Census: 1964 data from FT 125, December 1964, U.S. Imports of Merchandise for Consumption: SITC Group Totals: Commodity by Country, Area by Commodity, Country by Commodity; 1971-74 data from processed material for the respective periods issues as IM 150/155, U.S. General Imports, Schedule A Commodity Groupings... Table 4 - World Area of Origin by Schedule A Sub-group and Country of Origin by Schedule A Commodity Groupings and Method of Transportation.