

# **BRAZIL**

## **TODAY**

**FUNDAÇÃO IBGE**

**INSTITUTO BRASILEIRO DE ESTATÍSTICA**

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**INSTITUTO BRASILEIRO DE ESTATÍSTICA**

**RIO DE JANEIRO**  
**1967**

Fundação IBGE

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## FOREWORD

Brazil Today presents a selection of the most recent figures available from selected fields of Brazilian official statistics, for foreign users wishing to get data providing, in a concise form, a picture of the economic and social conditions in Brazil.

A few tables presenting figures for international comparison have been included for selected fields.

Users interested in data of greater detail, both in point of time as well as technically and regionally, will find such information in the *Anuário Estatístico do Brasil* — 1966, the forthcoming issue of which is being expected for next December.

Both the compilation of data and the translation were made by the Direction of Documentation and Publications of the Brazilian Institute of Statistics.

Rio de Janeiro, GB, September 1967.



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# SYMBOLS

Data not available .....	...
Magnitude less than half the unit employed .....	O
None or not applicable .....	—

## AREA AND POPULATION

Brazil occupies a continuous area of 8,511,965 square kilometers (3,286,470 square miles), which is equivalent to one sixth of the whole American continent and to almost one half of South America. It is the fifth largest country in the world and is exceeded in territorial extent only by the Soviet Union, Canada, China and the United States.

The distance between Brazil's extreme points is 4,320 kilometers in a north-south direction, and 4,328 kilometers in an east-west direction. It is bordered by all the countries of South America, except Ecuador and Chile. The Brazilian land frontier is 15,719 kilometers in length and the coastline extends for a distance of 7,400 kilometers along the Atlantic Ocean.

The territory of Brazil comprises a vast land extent, mostly between the Equator and the Tropic of Capricorn, and presents a great variety of climates, vegetation, physical features and natural resources.

From a topographical point of view, Brazilian relief presents no high mountains (highest peak is about 3,000 meters), and is composed mainly of plateaus broken into a series of steps and surrounded by plains.

The territory of Brazil extends in a north-south direction from latitude north 5°16'19" to latitude south 33°45'09", covering, on the other hand, about 39 degrees in an east-west direction. The predominance of plateaus in its configuration, the vast extent of its coast, and the 39 degrees of latitude that separate its extreme points in a north-south direction, afford Brazil a variety of climatic conditions.

A large part of Brazilian area lies in the temperate zone (states of Paraná, Santa Catarina and Rio Grande do Sul, southern parts of São Paulo and Minas Gerais) and have climatic characteristics similar to some regions of Europe.

Between 1889, the date of the proclamation of the Republic, and 1967, the population of Brazil has increased more than sixfold, rising from 14 million to approximately 87 million inhabitants.

The present population represents almost 50% of the population of South America and approximately one sixth of the total population of the American continent.

Between 1940 and 1950, the average annual rate of increase was 2.4%; in the decade between 1950 and 1960, this rate rose to approximately 3.0%.

The rise in the annual rate of increase was the result, on the one hand, of the progress in sanitation that had lowered the death rate, and, on the other hand, of the persistence of high birth rates. Thus, if we admit the continuance of a rate of increase of 3.0%, we may expect a total population, in 1970, of about 95,000,000.

The Brazilian population presents a high proportion of young people; about one half of the population is under 20 years of age.

The distribution of the Brazilian population over the national territory differs heavily from one region to another. The density of population (1967) ranges from 0.9 in the Northern region and 2.3 in the Central-West to 23.6 in the East and 38.8 in the South; the whole national territory has a density of about 10 inhabitants per square kilometer.

The most important trend of the population of Brazil is perhaps that towards urbanization. This trend may be verified by comparing the census figures for 1940 and 1960. Between those years the rural population of the country increased 37.5%, whereas the urban population increased 148.4%.

This accelerated process of urbanization reflects the progress made in the industrialization of the country, which tends to further the migration of the excess rural labor force to the cities and to rearrange the productive factors in agriculture by the substitution of manpower for capital goods and consequently to improve agricultural productivity.

The intensity of the process of urbanization is evidenced by the rapid increase in population of the chief Brazilian cities. Between 1950 and 1967, São Paulo increased from 2.2 million inhabitants to about 5 million; Rio de Janeiro from 2.4 to about 4 million; Belo Horizonte from 350,000 to one million; Recife from half million to one million.

The rapid natural increase in the population of Brazil and its trend towards urbanization constitute important factors in determining the expansion of the internal market, which presents great possibilities for enlargement because Brazil is one of the countries with more potential living space and has a capacity of containing a population several times the present population.

In the last 80 years the country has gained approximately 5 million immigrants; the migratory flux was directed chiefly towards southern Brazil, where immigrants had an important role in the economic and social development of such states as São Paulo, Rio Grande do Sul, Paraná and Santa Catarina.

# Geographical distribution of area

## 1. By States

STATES AND TERRITORIES	AREA (sq. km)	STATES AND TERRITORIES	AREA (sq. km)
<b>North</b>		<b>East</b>	
Rondônia (Territory) ...	243 044	Sergipe .....	21 994
Acre .....	152 589	Bahia .....	561 026
Amazonas .....	1 564 445	Minas Gerais .....	587 172
Roraima (Territory) ....	230 104	Espírito Santo .....	45 597
Pará .....	1 248 042	Rio de Janeiro .....	42 912
Amapá (Territory) .....	140 276	Guanabara .....	1 356
<b>North-East</b>		<b>South</b>	
Maranhão .....	328 663	São Paulo .....	247 898
Piauí .....	250 934	Paraná .....	199 554
Ceará .....	148 016	Santa Catarina .....	95 985
Rio Grande do Norte ..	53 015	Rio Grande do Sul .....	282 184
Paraíba .....	56 372	<b>Central-West</b>	
Pernambuco .....	98 281	Mato Grosso .....	1 231 549
Alagoas .....	27 731	Goiás .....	642 092
Fernando de Noronha (Territory) .....	26	Federal District .....	5 814
		<b>BRAZIL (1) .....</b>	<b>8 511 965</b>

(1) Including areas in dispute between States.

## Geographical distribution of area

### 2. By Regions

REGIONS	AREA (sq. km)	%
North .....	3 581 180	42.1
North-East .....	965 652	11.3
East .....	1 260 057	14.8
South .....	825 621	9.7
Central-West .....	1 879 455	22.1
<b>BRAZIL</b> .....	<b>8 511 965</b>	<b>100.0</b>

Recife, main city of the North-East







Winter in the southern State of Santa Catarina

### Largest countries in the world in area

COUNTRIES	AREA (1 000 sq. km)	COUNTRIES	AREA (1 000 sq. km)
USSR .....	22 402	Australia .....	7 687
Canada .....	9 976	India .....	3 046
China (Mainland) .....	9 561	Argentina .....	2 777
United States .....	9 363	Sudan .....	2 506
BRAZIL .....	8 512	Algeria .....	2 382



Typical vegetation of the Northeastern dry area

# Geographical distribution of population — 1967

## 1. By States

STATES AND TERRITORIES	POPULATION (thousands)	DENSITY (inhab. per sq. km)	STATES AND TERRITORIES	POPULATION (thousands)	DENSITY (inhab. per sq. km)
<b>North</b>			<b>East</b>		
Rondônia (Territory) .....	110	0.5	Sergipe .....	847	38.5
Acre .....	200	1.3	Bahia .....	6 885	12.3
Amazonas .....	898	0.6	Minas Gerais ...	11 440	19.5
Roraima (Territory) .....	41	0.2	Espírito Santo ..	1 471	32.3
Pará .....	1 914	1.5	Rio de Janeiro	4 422	103.0
Amapá (Territory) .....	103	0.7	Guanabara .....	4 102	3 025.1
<b>North-East</b>			<b>South</b>		
Maranhão .....	3 378	10.3	São Paulo .....	16 381	66.1
Piauí .....	1 421	5.7	Paraná .....	6 907	34.6
Ceará .....	3 830	25.9	Santa Catarina ..	2 659	27.7
Rio Grande do Norte .....	1 294	24.4	Rio Grande do Sul .....	6 502	23.0
Paraíba .....	2 245	39.8	<b>Central-West</b>		
Pernambuco ....	4 706	47.9	Mato Grosso ....	1 322	1.1
Alagoas .....	1 399	50.4	Goiás .....	2 684	4.2
Fernando de Noronha (Territory) .....	2	76.9	Federal District	348	59.9
			<b>BRAZIL (1) .</b>	<b>87 209</b>	<b>10.2</b>

(1) Partial data do not correspond to the totals, as the estimates for Brazil, the Regions and States were computed separately, from the 1950 and 1960 census results.

# Geographical distribution of population — 1967

## 2. By Regions

REGIONS	POPULATION (%)	DENSITY (inhabitants per sq. km)
North .....	3.7	0.9
North-East .....	20.8	18.8
East .....	34.0	23.6
South .....	36.6	38.8
Central-West .....	4.9	2.3
<b>BRAZIL</b> .....	<b>100.0</b>	<b>10.2</b>

## Largest countries in the world in population

COUNTRIES	POPULATION (1) (thousands)	COUNTRIES	POPULATION (1) (thousands)
China (Mainland) .....	690 000	Japan .....	96 906
India .....	471 624	BRAZIL .....	79 837
USSR .....	227 687	Nigeria .....	56 400
United States .....	192 120	Western Germany .....	56 097
Indonesia .....	102 200	United Kingdom .....	54 213
Pakistan .....	100 762	Italy .....	51 090

(1) Estimates for 1964.

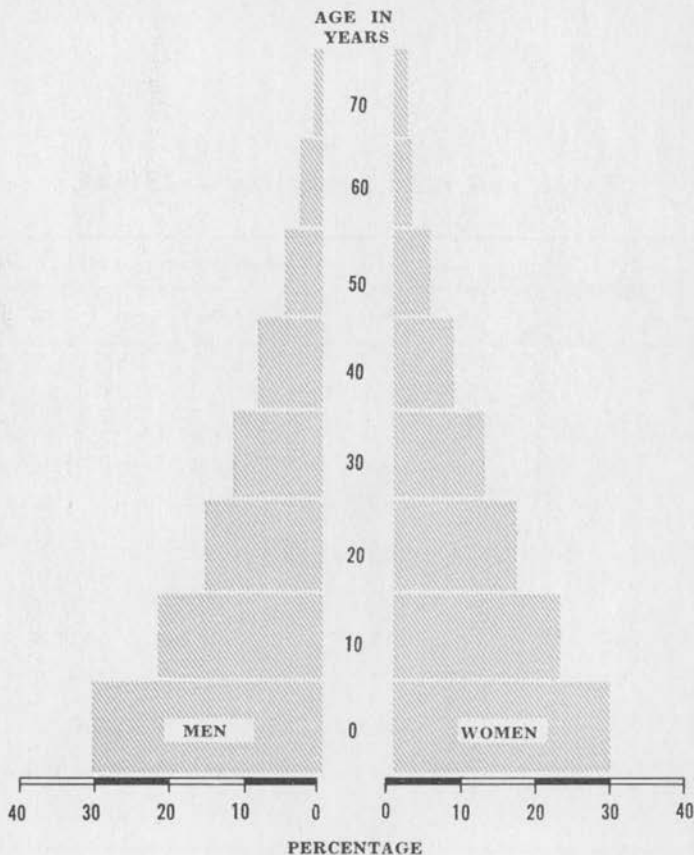
## Census results — 1872-960

CENSUSES		POPULATION (thousands)
1872	.....	9 930
1890	.....	14 334
1900	.....	17 438
1920	.....	30 636
1940	.....	41 236
1950	.....	51 944
1960	.....	70 967

## Population estimates — 1961-70

YEARS	POPULATION (thousands)	YEARS	POPULATION (thousands)
1961	73 088	1966	84 679
1962	75 271	1967	87 209
1963	77 521	1968	89 815
1964	79 837	1969	92 499
1965	82 222	1970	95 262

## AGE STRUCTURE OF THE POPULATION



## Urban and rural population — 1940-60

YEARS	POPULATION		
	Total	Urban	Rural

### NUMBER (thousands)

1940 .....	41 236	12 880	23 356
1950 .....	51 944	18 783	33 161
1960 .....	70 967	31 991	38 976

### PERCENTAGE OF THE TOTALS

1940 .....	100.0	31.2	68.8
1950 .....	100.0	36.2	63.8
1960 .....	100.0	45.1	54.9

### INCREASE (%)

1940-50 .....	26.0	45.8	16.9
1950-60 .....	36.6	70.3	17.5

## Age — 1960

AGE GROUPS (in years)	POPULATION (%)		
	Total	Male	Female
Under 10 .....	30.5	31.0	29.9
10-19 .....	22.4	22.1	22.7
20-29 .....	16.2	15.7	16.8
30-39 .....	12.1	12.0	12.2
40-49 .....	8.5	8.7	8.3
50-59 .....	5.4	5.6	5.2
60-69 .....	3.1	3.2	3.0
70 years and over and age not reported .....	1.8	1.7	1.9
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



## Economically active population — 1960

BRANCHES OF ACTIVITY	ECONOMICALLY ACTIVE POPULATION (1) (thousands)	%
Agriculture .....	11 698	51.6
Mining and forestry .....	573	2.5
Manufacturing .....	2 006	8.9
Construction .....	785	3.5
Merchandise trade .....	1 520	6.7
Transport, communications and storage .....	1 089	4.8
Services .....	2 732	12.1
Other activities .....	2 248	9.9
<b>TOTAL</b> .....	<b>22 651</b>	<b>109.0</b>

(1) Population 10 years of age and over.

## Religion, citizenship and color

ITEMS	POPULATION (1) (%)	ITEMS	POPULATION (1) (%)
<b>TOTAL</b> .....	<b>100.0</b>	<b>By citizenship</b>	
<b>By religion</b>		Native born .....	97.7
Roman catholic ....	93.5	Naturalized .....	0.2
Protestant .....	3.3	Alien .....	2.1
Spiritualist .....	1.6	<b>By color</b>	
Orthodox .....	0.1	White .....	61.7
Jewish .....	0.1	Negro .....	11.0
Other religion .....	0.6	Colored .....	26.5
No religion and re- ligion not reported	0.8	Yellow .....	0.6
		Color not reported ..	0.2

(1) Percentages based on the 1950 census results.

## Immigration — 1884-963

ITEMS	IMMIGRANTS (thousands)	%
<b>TOTAL</b> .....	4 999	100.0
<b>By citizenship</b>		
Portuguese .....	1 551	31.0
Italian .....	1 528	30.6
Spanish .....	695	13.9
Japanese .....	243	4.9
German .....	197	3.9
Other .....	785	15.7
<b>By years of arrival</b>		
1884-900 .....	1 579	31.6
1901-20 .....	1 469	29.4
1921-40 .....	1 129	22.6
1941-60 .....	723	14.4
1961-63 .....	99	2.0

## Population rates — 1940-60

ITEMS	AVERAGE ANNUAL RATES (per 1 000 inhab.)	
	1940-50	1950-60
Rates of population increase		
Total population .....	24	30
Urban .....	39	54
Rural .....	16	16
Birth rates .....	43	44
Death rates .....	20	15

## Brazil's most populous capital cities

CAPITAL CITIES	STATES	POPULATION (1) (thousands)
São Paulo .....	São Paulo	5 535
Rio de Janeiro .....	Guanabara	4 102
Belo Horizonte .....	Minas Gerais	1 081
Recife .....	Pernambuco	1 046
Porto Alegre .....	Rio Grande do Sul	879
Salvador .....	Bahia	878
Fortaleza .....	Ceará	790
Curitiba .....	Paraná	573
Belém .....	Pará	537
Brasília .....	Federal District	348
Goiânia .....	Goiás	310
Niterói .....	Rio de Janeiro	293

(1) Estimates for 1967.

## INDUSTRIAL PRODUCTION

Brazilian industrial production resumed its upward trend, reaching a satisfactory level of development in 1966, when the annual rate of increase rose 11.8% above the 1965 mark. Results were particularly favorable for the manufacturing industries, which accounted for the highest share in this upward trend, with a rate of 12.3%. Electric power production also registered a considerable rise in production (9.5%), followed in order by the extractive industries (7.7%) and construction, the latter with a slighter increase (6.0%).

The recuperation in the pace of industrial development is particularly significant when compared with the declining trend of the preceding period, since it was expressed by a return, in 1965, to the global index for 1962.

Compared to some of the chief Latin American nations, Brazilian industrial development maintains a reasonable level, notwithstanding a drastic decline in its rates of increase during the five-year period beginning with 1960. While in the preceding five years Brazilian industrial development registered an annual average considerably higher than that of Latin America as a whole (10.0% as against 6.4%), in the period 1960-65 it became slightly lower (4.9% as against 5.6%). Thus, Brazil declined from first place among the seven chief Latin American countries in the first five-year period, to sixth in the second period, preceding only Argentina.

If we refer to a larger period of time, Brazilian industrial development shows a still more remarkable growth; in fact, the number of industries increased threefold during the twenty-year period covered by the three

last general censuses held in the country. Starting with 1940, when industrial establishments numbered 49,418, with 781 thousand workers and 1,186 thousand metric horsepower of installed motive power, comparable data for 1950 are almost double, i.e., 92,350 establishments, 1,279 thousand workers and 2,824 thousand metric horsepower of installed motive power. During the following decade, progress was also significant, while not expressed by an extensive growth as in the preceding period, but rather by a probable intensification of the technical rentability per unit of production. Apparently, this is what may be inferred from the fact that between 1950 and 1960 the increase in motive power — which rose from 2,824 thousand metric horsepower to 5,145 thousand metric horsepower (indexes of 238 and 434 in 1950 and 1960, respectively) — was higher than that of the number of workers employed — 1,279 thousand to 1,426 thousand (indexes of 164 and 183, respectively) — and still more than the total number of establishments — which rose only from 92,350 to 110,771 (indexes of 187 and 224, respectively). Another significant fact which may be brought to bear on the hypothesis is the preponderance of large establishments in domestic industrial production. In fact, in 1960, a relatively small proportion of establishments (2,775 or 2.5% of the total) accounted for 61.0% of the entire domestic manufacturing production in terms of value.

Brazilian industrial development has its dynamic centre in the Southern region, where, according to the 1960 census, 55.3% of all establishments, 61.4% of the persons engaged and 68.3% of the whole value of domestic industrial production are to be found. Next comes the Eastern region that, although significant, accounts for only 28.6% of all establishments, 27.8% of the persons engaged and 24.4% of the entire production value. The remaining three regions present low levels of both industrialization and technical productivity: the Northeast, with 12.1% of the establishments, 8.9% of the persons engaged and 5.7% of the production value; Central-West, with 2.4% of the establishments, 0.8% of the persons engaged and 0.7% of the production value; and the North,

with 1.6% of the establishments, 1.1% of the persons engaged and 0.9% of the production value. Differences in the geographical distribution of domestic industries are further emphasized by the fact that the state of São Paulo alone, while accounting for less than one third of the total number of industrial establishments, i.e., 36,254, concentrates 55.1% of the aggregate value of domestic industrial production.

A new development of the highest relevance in the context of Brazilian economic development is the growing, and already significant, participation of the durable goods sector in the whole domestic industrial production, especially that of such branches as metallurgy, chemicals and motor vehicles and accessories. Noteworthy is the fact that the domestic production of steel ingots, which in 1955 reached a little above one million metric tons (1,162 thousand m.t.), in 1965 climbed to nearly 3 million metric tons (2,896 thousand m.t.). On the other hand, production of motor vehicles, that registered a mere 30,700 units in 1957, saw its physical production increased sevenfold in the course of a decade, attaining 224,575 units in 1966.

Other significant facts of the country's industrial development are first, the recent establishment of the shipbuilding industry, whose productive capacity already reaches about 250 thousand dwt tons per year and second, the growing domestic crude oil production, with a total of 42.5 million barrels in 1966.

The discovery of oil wells in Brazil revealed a reserve of an estimated 900 million barrels. However, as highly productive new oil wells have been discovered in recent years and prospective work is currently carried out with promising results, the actual reserves are not ascertained with any accuracy.

Between 1955 and 1967, petroleum production rose from 5,540 to 147,735 barrels per day. From a country that was completely dependent on petroleum imports, Brazil

now produces more than 40% of her requirements. Crude petroleum is still the second item in Brazilian imports in terms of value, and weighs considerably in the country's balance of payments. This is explained out by the violent increase in petroleum by-products consumption on the domestic market, in consequence of both industrial development and the rapid growth of motor vehicles, especially after the establishment of the automotive industry in the country. Today, Brazil consumes the equivalent of 350 thousand barrels per day.

Nearly all domestic petroleum comes from the oilfields in the state of Bahia. In recent years production in the state of Sergipe has steadily increased.

Brazil possesses one of the largest hydraulic power potentials in the world, only surpassed by those in the Congo (Kinshasa), China and the USSR. It is estimated at 75 million kW of continuous average power, a quantity sufficient to meet a demand of 150 million kW. Of this total, 56% is actually proved, and the remaining 44% may be estimated through both the average height of hydraulic basins and their probable rainfall. These potential hydraulic resources are chiefly to be found in the Amazon basin.

The present domestic consumption of hydro-electric power is estimated at more than 22 thousand million kWh. During the last 25 years, consumption showed an increase of 400%. In the frame of domestic consumption of energy, hydro-electric power contributes a proportion of 25.8% — as against 41.8% for petroleum, and 22.7% for firewood.

Up to January 1966, installed power in Brazil reached 7,411 thousand kW, of which 2,020 thousand kW comes from thermo-electric sources. Thus, contrary to trends prevailing throughout practically the entire world, electric energy in Brazil is derived primarily from hydraulic sources.

In 1965, Brazilian aggregate production of electric power was of 30,128 million kWh, a figure that represents an index of 400 kWh per inhabitant. Among the countries of Latin America, Brazil occupies first place in this sector, in terms of absolute energetic power.

About one third of installed electric power capacity is found in the state of São Paulo, the most industrialized state in the country. Minas Gerais accounts for 26.1% and the state of Rio de Janeiro — including the state of Guanabara — 13.5%. Furnas, Cubatão, Paulo Afonso, Nilo Peçanha, and Três Marias are the largest generating plants installed to date. A number of generating plants are now under construction or being expanded. The plant at Ilha Solteira, in the state of São Paulo, presently under construction, will be one of the largest in the world, with a capacity of 3,200 thousand kW. Paulo Afonso, located in the state of Bahia, and which serves a number of states in the Northeast, is undergoing expansion toward an installed capacity of 1,815 thousand kW. From an economic point of view, the hydro-electric power plant now in construction at Boa Esperança, between the states of Piauí and Maranhão, while relatively small, is very important.



Entrance to the bay of Rio de Janeiro



## GENERAL CHARACTERISTICS

### Index numbers of industrial production — 1964-66

ITEMS	INDEX NUMBERS (1962=100)			ANNUAL INCREASE OF PRO- DUCTION (1965-66)
	1964	1965	1966	
Mining .....	144.3	175.2	188.7	7.7
Manufacturing .....	104.8	99.9	112.1	12.3
Construction .....	103.5	78.7	83.3	6.0
Electricity .....	110.0	114.6	125.4	9.5
<b>TOTAL</b> .....	<b>105.2</b>	<b>100.0</b>	<b>111.8</b>	<b>11.8</b>

### Rates of growth of manufacturing production in Latin America — 1955-65

COUNTRIES	RATES OF GROWTH (1)	
	Period 1955-60	Period 1960-65
Argentina .....	3.7	4.0
BRAZIL .....	10.3	4.9
Chile .....	3.2	6.6
Colombia .....	6.1	5.9
Mexico .....	8.1	7.9
Peru .....	6.1	7.4
Venezuela .....	7.7	9.3
<b>LATIN AMERICA</b> .....	<b>6.4</b>	<b>5.6</b>

(1) Annual average.

# Census results

## 1. Summary — 1940-60

ITEMS	DATA		
	1940	1950	1960

### ABSOLUTE VALUES

Establishments .....	49 418	92 350	110 771
Workers (thousands) .....	781	1 279	1 426
Motive power (1 000 cv) ..	1 186	2 824	5 145

### INDEX NUMBERS (1940=100)

Establishments .....	100	187	224
Workers .....	100	164	183
Motive power .....	100	238	434

### AVERAGE PER ESTABLISHMENT

Workers .....	15.8	13.8	12.9
Motive power (cv) .....	24.0	30.6	46.4

## 2. Size of industrial establishments — 1960

PERSONS ENGAGED	ESTABLISH- MENTS	PERSONNEL (thousands)		VALUE OF PRO- DUCTION (%)
		Total	Workers	
Under 10 .....	87 495	286	181	11.4
10 — 49 .....	16 693	335	277	18.1
50 — 99 .....	2 510	173	147	9.3
100 — 499 .....	2 292	483	400	28.3
500 — 999 .....	315	209	170	12.2
1 000 and over .....	168	313	251	20.6
Personnel not reported	1 298	—	—	0.1
<b>TOTAL</b> .....	<b>110 77</b>	<b>1 799</b>	<b>1 426</b>	<b>100.0</b>

## 3. Geographical distribution of industrial establishments — 1960

### a) Regions

REGIONS	PERCENTAGE			
	Establish- ments	Personnel		Value of production
		Total	Workers	
North .....	1.6	1.1	1.2	0.9
North-East .....	12.1	8.9	9.2	5.7
East .....	28.6	27.8	27.9	24.4
South .....	55.3	61.4	60.9	68.3
Central-West .....	2.4	0.8	0.8	0.7
<b>BRAZIL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 3. Geographical distribution of industrial establishments — 1960

#### b) Main industrial States

STATES	ESTABLISH- MENTS	PERSONNEL (thousands)		VALUE OF PRODUCTION (%)
		Total	Workers	
São Paulo .....	36 254	831	650	55.1
Guanabara .....	5 328	177	137	9.6
Rio Grande do Sul ...	12 629	135	105	7.1
Rio de Janeiro .....	4 543	110	91	6.5
Minas Gerais .....	12 327	140	115	6.0
Paraná .....	6 417	68	55	3.9
Pernambuco .....	3 606	72	60	2.8
Santa Catarina .....	5 914	70	58	2.2
Other .....	23 753	196	155	6.8
<b>BRAZIL .....</b>	<b>110 771</b>	<b>1 799</b>	<b>1 426</b>	<b>100.0</b>

#### 4. Main industrial centers — 1960

COUNTIES	STATES	VALUE OF PRODUCTION (1) (%)
São Paulo .....	São Paulo	28.3
Rio de Janeiro .....	Guanabara	9.6
Santo André .....	São Paulo	3.8
São Bernardo do Campo ..	São Paulo	2.9
São Caetano do Sul ..	São Paulo	1.8
Pôrto Alegre .....	Rio Grande do Sul	1.7
Cubatão .....	São Paulo	1.7
Volta Redonda .....	Rio de Janeiro	1.7
Recife .....	Pernambuco	1.3
Sorocaba .....	São Paulo	1.0
Belo Horizonte .....	Minas Gerais	0.9
Campinas .....	São Paulo	0.9

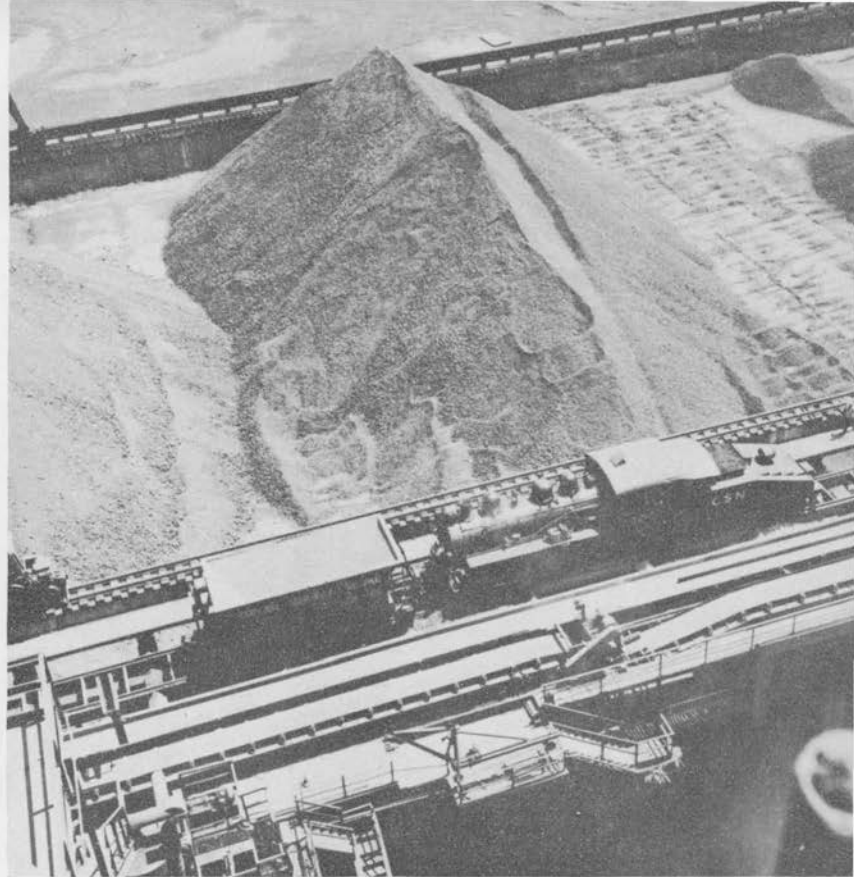
(1) Percentage of Brazil's total value.

# MINING

## 1. Crude petroleum — 1955-67

YEARS	TOTAL PRODUCTION (thousand barrels)	PRODUCTION PER DAY	
		Quantity (barrels)	Index numbers (1955=100)
1955 .....	2 022	5 540	100
1957 .....	10 107	27 690	500
1959 .....	23 592	64 636	1 167
1961 .....	34 811	95 373	1 722
1963 .....	35 726	97 879	1 767
1965 .....	34 345	94 096	1 698
1966 .....	42 450	116 301	2 099
1967 (1) .....	22 308	147 735	2 667

(1) January/May.



Shipment of iron ore



## 2. Other products — 1955-65

### a) Absolute values

ITEMS	PRODUCTION			
	Quantity (1 000 m.t.)			Value (NCr\$ 1 000 000)
	1955	1960	1965	
Coal .....	2 268	2 330	3 137	65.7
Iron ore (hematite) .....	3 382	9 345	18 160	29.5
Manganese ore .....	213	999	1 396	23.2
Salt .....	581	923	1 200	11.0
Tin (cassiterite) (1) .....	248	2 635	2 833	5.1
Lead ore .....	53	141	267	3.9
Marble .....	43	50	47	1.6
Quartz (1) .....	718	1 177	649	1.1
Magnesite .....	...	63	125	1.0
Copper ore .....	2	70	126	0.8
Talc (steatite) .....	25	20	58	0.7
Dolomite .....	88	226	223	0.6
Tungsten (scheelite) (1) .....	971	1 412	318	0.6
Asbestos .....	3	98	159	0.4
Aluminium (bauxite) .....	45	121	156	0.4

(1) Quantities in metric tons.

# Other products — 1955-65

## b) Index numbers

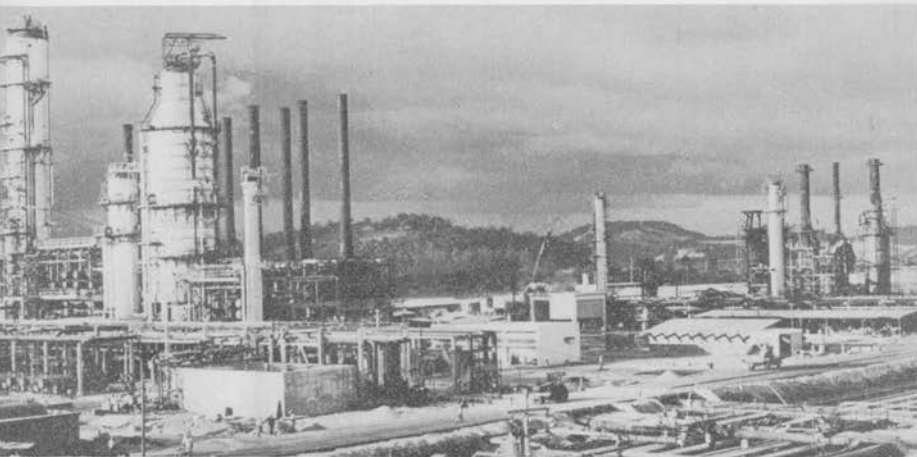
ITEMS	INDEX NUMBERS (1) (1955=100)	
	1960	1965
Coal .....	103	138
Iron ore (hematite) .....	276	537
Manganese ore .....	469	655
Salt .....	159	207
Tin (cassiterite) .....	1 063	1 142
Lead ore .....	266	504
Copper ore .....	3 500	6 300
Aluminium (bauxite) .....	269	347

(1) Quantity index.

# Geographical distribution of mining production — 1965

STATES	PRODUCTION		STATES	PRODUCTION	
	Quantity (1 000 m.t.)	%		Quantity (1 000 m.t.)	%
IRON ORE			COAL		
Minas Gerais ...	18 130	99.8	Santa Catarina ..	2 230	71.1
BRAZIL .....	18 160	100.0	Rio G. do Sul ..	804	25.6
MANGANESE ORE			Paraná .....	103	3.3
Amapá .....	940	67.3	BRAZIL .....	3 137	100.0
Minas Gerais ...	350	25.1	SALT		
BRAZIL .....	1 396	100.0	Rio G. do Norte	819	68.3
PETROLEUM (1)			Rio de Janeiro ..	144	12.0
Bahia .....	34 141	99.4	Ceará .....	135	11.3
BRAZIL .....	34 345	100.0	BRAZIL .....	1 200	100.0

(1) Quantities in 1 000 barrels.



# **Production of iron and manganese ores in leading producing countries — 1964**

COUNTRIES		COUNTRIES	
PRODUCTION (1 000 m.t.)		PRODUCTION (1 000 m.t.)	
IRON ORE (Fe content)		MANGANESE ORE (Mn content)	
USSR .....	84 622	USSR .....	3 200
United States .....	47 681	South Africa .....	600
France .....	19 805	BRAZIL .....	594
Canada .....	19 171	India .....	540
Sweden .....	16 220	Gabon .....	474
India .....	12 414	China (Mainland) .....	300
BRAZIL .....	10 200	Ghana .....	222
Venezuela .....	10 013	Congo (Dem. Rep. of) ..	164

Duque de Caxias refinery — Petrobrás  
(State of Rio de Janeiro)

# MANUFACTURING

## Manufacturing survey — 1966

ITEMS	ABSOLUTE VALUES		PERCENTAGE	
	Personnel (thousands)	Value of production (NCr\$1 000 000)	Personnel	Value of production
Foodstuffs .....	268	6 211	13.1	19.2
Metallurgical products .....	328	3 931	16.1	12.2
Chemicals .....	84	3 670	4.1	11.4
Textiles .....	324	3 617	15.9	11.2
Vehicles and accessories .....	142	2 717	7.0	8.4
Electric and communications material	85	1 870	4.2	5.8
Non-metallic minerals .....	123	1 419	6.0	4.4
Machinery .....	89	1 029	4.4	3.2
Wearing apparel, footwear and textile products .....	112	997	5.5	3.1
Paper and cardboard .....	62	947	3.0	2.9
Pharmaceutical products .....	41	889	2.0	2.7
Other .....	382	5 016	18.7	15.5
<b>TOTAL</b> .....	<b>2 040</b>	<b>32 313</b>	<b>100.0</b>	<b>100.0</b>

## Production of iron and steel — 1955-65

ITEMS	PRODUCTION			
	1955	1960	1963	1965

### QUANTITY (1 000 m.t.)

Pig-iron .....	1 069	1 750	2 477	2 355
Steel ingots .....	1 162	1 843	2 737	2 896
Finished rolled products .....	982	1 358	2 030	2 022
Ferro-alloys .....	18	34	38	45

### INDEX NUMBERS (1955=100)

Pig-iron .....	100	164	232	220
Steel ingots .....	100	159	236	249
Finished rolled products .....	100	138	207	206
Ferro-alloys .....	100	189	211	250

## Main steel-works

ENTERPRISES	STATES	CAPACITY OF STEEL-WORKS (1) (1 000 m.t.)
Companhia Siderúrgica Nacional (Volta Redonda)	Rio de Janeiro	1 300
Usiminas .....	Minas Gerais	600
Cosipa .....	São Paulo	500
Belgo-Mineira .....	Minas Gerais	460
Mineração Geral do Brasil .....	São Paulo	380
Mannesmann .....	Minas Gerais	350
Acesita .....	Minas Gerais	120
Aliperti .....	São Paulo	110
Siderúrgica Barra Mansa .....	Rio de Janeiro	90

(1) Capacity of production of steel ingots per year (1964).

## Production of motor vehicles

### 1. Summary — 1957-66

YEARS	PRODUCTION (number of units)	INDEX NUMBERS (1957=100)
1957 .....	30 700	100
1960 .....	133 078	433
1963 .....	174 126	567
1965 .....	185 173	603
1966 .....	224 575	732

## Production of motor vehicles

### 2. By type and enterprise — 1966

ITEMS	PRODUCTION		ITEMS	PRODUCTION	
	1 000 units	%		1 000 units	%
<b>TOTAL</b> .....	224.6	100.0	General Motors ...	16.0	7.1
<b>By type</b>			Vemag (DKW) ....	14.8	6.6
Passenger cars ....	120.1	53.5	Ford .....	14.0	6.2
Trucks and buses .	35.1	15.6	Mercedes Benz ....	11.4	5.1
Utility vehicles ....	54.5	24.3	Simca .....	5.3	2.4
Jeeps .....	14.9	6.6	FNM (National Mo-		
<b>By enterprise</b>			tors Factory) ...	2.0	0.9
Volkswagen .....	95.1	42.3	Scania Vabis .....	1.1	0.5
Willys .....	64.0	28.5	Toyota .....	0.9	0.4

## Production of tractors

### 1. Summary — 1961-66

YEARS	PRODUCTION (number of units)	INDEX NUMBERS (1961=100)
1961 .....	1 678	100
1963 .....	9 908	590
1965 .....	8 123	484
1966 .....	9 069	540



# **Production of tractors** **2. By type and enterprise**

ITEMS	PRODUCTION (number of units)	%
<b>TOTAL</b> .....	<b>9 069</b>	<b>100.0</b>
<b>By type</b>		
Light .....	4 011	44.2
Medium .....	2 753	30.4
Heavy .....	2 305	25.4
<b>By enterprise</b>		
Massey-Ferguson .....	4 105	45.2
Ford .....	1 408	15.5
Valmet .....	1 340	14.8
Demisa (Deutz Minas S/A) .....	994	11.0
CBT (Brazilian Tractor Company) .....	815	9.0
Fendt .....	407	4.5

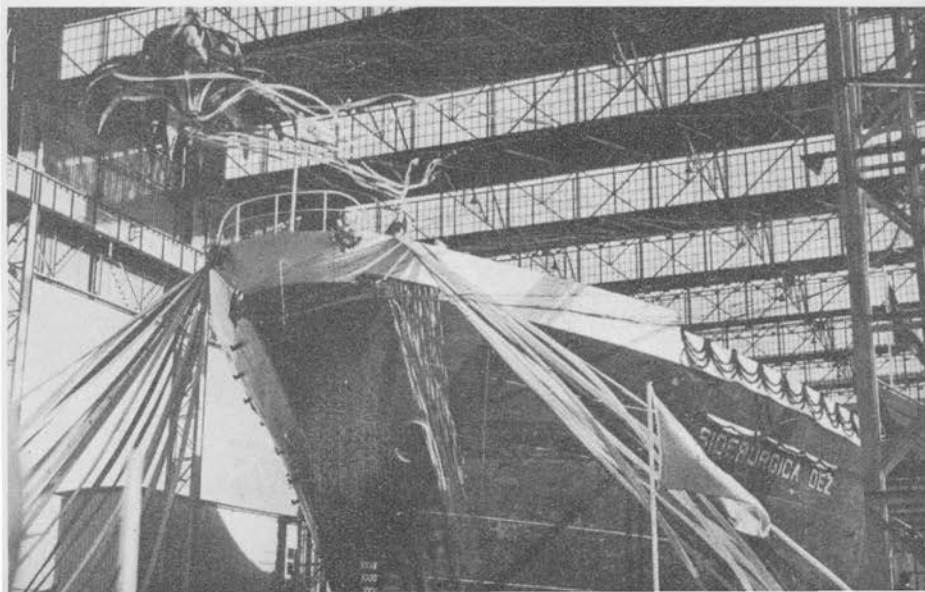
Vessel under construction at a Brazilian shipyard

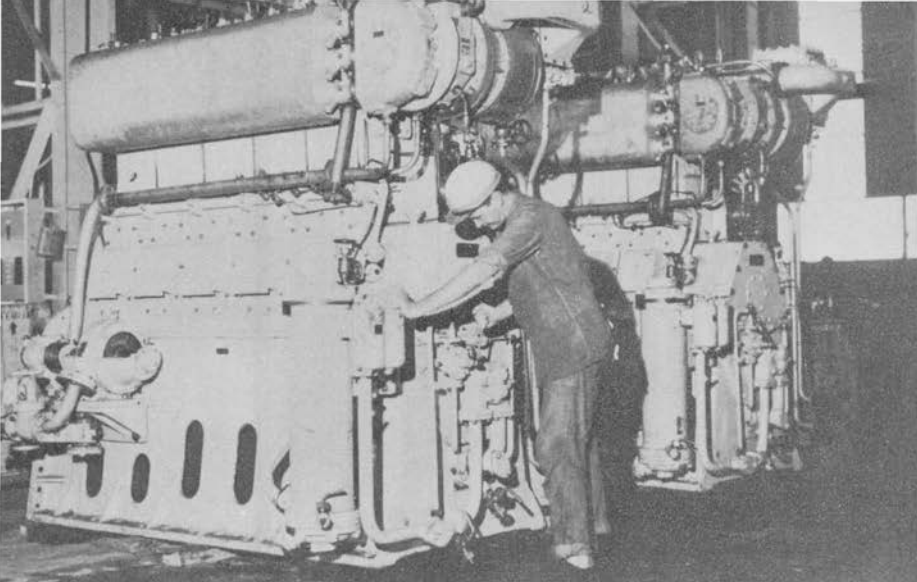
# Shipbuilding

## 1. Main shipyards

SHIPYARDS	STATES	CAPACITY OF SHIPYARDS (1) (dwt tons)
Ishikawajima (Inhaúma) .....	Guanabara	80 000
Verolme (Jacuecanga) .....	Rio de Janeiro	75 000
Mauá .....	Rio de Janeiro	50 000
Emaq .....	Guanabara	12 000
Caneco .....	Guanabara	10 000

(1) Capacity of production per year.





A motor under construction at  
a Brazilian factory

## Shipbuilding

### 2. Vessels under construction — 1967

SHIPYARDS	VESSELS UNDER CONSTRUCTION (1)	
	Number	Tonnage (thousand dwt tons)
Ishikawajima (Inhaúma) .....	7	100
Verolme (Jacuecanga) .....	9	88
Mauá .....	9	108
Emaq .....	5	15
Caneco .....	6	15

(1) July, 1967.

## Refining of crude petroleum — 1966

ITEMS	PROCESSED OIL (thousand barrels)	%
<b>TOTAL</b> .....	<b>124 264</b>	<b>100.0</b>
<b>By provenance</b>		
Domestic oil .....	43 007	34.6
Imported oil .....	81 257	65.4
<b>By refinery</b>		
Official (Petrobrás) .....	104 010	83.7
Duque de Caxias .....	46 445	37.4
Presidente Bernardes .....	41 734	33.6
Landulfo Alves .....	15 831	12.7
Private .....	20 254	16.3
União .....	11 038	8.9
Manguinhos .....	3 584	2.9
Ipiranga .....	3 364	2.7
Other .....	2 268	1.8

## Oil refineries — 1966

REFINERIES	STATES	PROCESSING CAPACITY (barrels per day)
<b>Petrobrás refineries</b>		
Duque de Caxias (Caxias) .....	Rio de Janeiro	150 000
Presidente Bernardes (Cubatão) .....	São Paulo	112 000
Landulfo Alves (Mataripe) .....	Bahia	47 000
Gabriel Passos (Betim) (1) .....	Minas Gerais	45 000
Alberto Pasqualini (Canoas) (1) .....	Rio G. do Sul	45 000
<b>Private refineries</b>		
União (Capuava) .....	São Paulo	31 000
Manguinhos (Rio de Janeiro) .....	Guanabara	10 000
Ipiranga (Rio Grande) .....	Rio G. do Sul	9 300
Copam (Manaus) .....	Amazonas	5 000
Matarazzo (São Paulo) .....	São Paulo	880
Riograndense (Uruguaiana) .....	Rio G. do Sul	380

(1) Under construction.

# Production of petroleum products — 1955-66

## 1. Quantity

ITEMS	PRODUCTION (thousand barrels)			
	1955	1960	1965	1966
Gasoline .....	11 244	20 466	36 268	41 028
Kerosene .....	95	4 031	4 124	4 638
Distillate fuel oils ....	2 153	9 910	22 019	28 482
Residual fuel oils ....	10 327	23 575	34 970	35 985
Liquefied petroleum gas	544	2 814	6 550	3 941
Asphalt .....	97	1 254	1 817	2 521

## 2. Index numbers

ITEMS	INDEX NUMBERS (1955=100)		
	1960	1965	1966
Gasoline .....	182	323	365
Kerosene .....	4 243	4 341	4 882
Distillate fuel oils .....	460	1 023	1 323
Residual fuel oils .....	228	339	348
Liquefied petroleum gas ..	517	1 204	724
Asphalt .....	1 293	1 873	2 599

## Production of portland cement — 1955-66

YEARS	PRODUCTION (1 000 m.t.)		INDEX NUMBERS (1955=100)	
	Common cement	White cement	Common cement	White cement
1955 .....	2 720	15	100	100
1960 .....	4 443	26	163	173
1963 .....	4 851	30	178	200
1965 .....	5 189	32	191	213
1966 .....	5 519	34	203	227

## Production of tires and tubes — 1955-66

YEARS	PRODUCTION (thousand units)		INDEX NUMBERS (1955=100)	
	Tires	Inner tubes	Tires	Inner tubes

### FOR MOTOR VEHICLES

1955 .....	2 169	1 203	100	100
1960 .....	3 253	2 274	150	189
1963 .....	4 056	2 855	187	237
1966 .....	5 255	3 720	242	309

### FOR BICYCLES

1955 .....	1 290	1 214	100	100
1960 .....	2 695	2 352	209	194
1963 .....	2 016	2 274	156	187
1966 .....	2 614	2 117	203	174

## Production of paper — 1955-65

ITEMS	PRODUCTION (1 000 m.t.)			INDEX NUMBERS (1955=100)	
	1955	1960	1965	1960	1965
Printing paper .....	99	151	190	153	192
Newsprint .....	37	66	124	178	335
Other .....	62	85	66	137	106
Writing paper .....	44	59	73	134	166
Wrapping paper .....	157	220	260	140	166
Other papers (including cardboard) .....	33	44	104	133	315
TOTAL .....	333	474	627	142	188

## Production of cane sugar — 1955-65

YEARS	PRODUCTION (1) (1 000 m.t.)	INDEX NUMBERS (1955=100)
1955 .....	2 073	100
1960 .....	3 319	160
1962 .....	3 238	156
1964 .....	3 425	165
1965 .....	4 660	225

(1) Production at sugar-mills only.



## Production of meat — 1955-65

YEARS	PRODUCTION (1 000 m.t.)		INDEX NUMBERS (1955=100)	
	Beef	Pork	Beef	Pork
1955 .....	993	151	100	100
1960 .....	1 197	164	121	109
1963 .....	1 192	221	120	146
1965 .....	1 312	227	132	150

## Production of vegetable oils and fats — 1955-65

ITEMS	PRODUCTION			
	Quantity (1 000 m.t.)			Value (NCr\$ 1 000 000)
	1955	1960	1965	
Peanuts oil .....	57.6	63.2	102.9	73.0
Cottonseed oil .....	90.1	92.3	103.2	57.7
Castor oil .....	41.9	54.4	170.7	52.9
Babassu oil .....	41.2	58.2	54.1	28.0
Soybeans oil .....	1.7	16.6	45.5	27.5
Cocoa butter .....	7.8	18.5	18.1	21.7
Peppermint oil .....	0.1	0.6	1.0	7.7
Oiticica oil .....	11.4	19.6	12.1	5.9
Linseed oil ....	7.0	9.3	8.2	4.2

**CONSTRUCTION**  
**Building permits in selected capital**  
**cities — 1966**

CAPITAL CITIES	NUMBER OF PERMITS	AREA (1 000 sq. meters)		NUMBER OF DWELLINGS	
		Total	Residential	Houses	Apart- ments
São Paulo .....	9 386	4 192	1 843	7 580	11 278
Rio de Janeiro .....	2 959	840	575	2 355	4 353
Pôrto Alegre .....	1 529	614	374	1 101	2 665
Belo Horizonte .....	1 215	393	283	962	1 540
Curitiba .....	1 166	378	196	966	554
Salvador .....	1 218	330	215	927	1 359
Brasília .....	1 026	291	161	884	794
Recife .....	1 196	268	201	1 051	1 307

Peixoto hydro-electric plant  
(State of Minas Gerais)

# ELECTRICITY Installed capacity — 1955-65

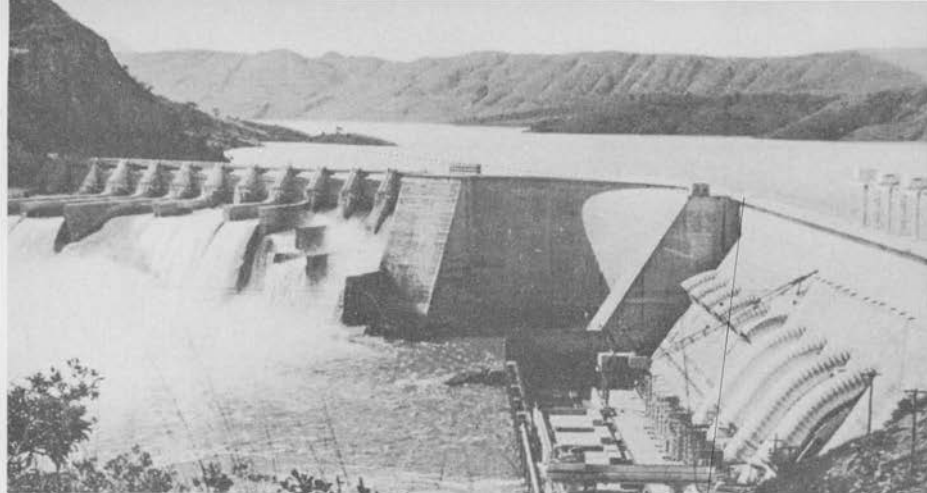
YEARS	INSTALLED CAPACITY		
	Total	Hydro-electric	Thermo-electric

## QUANTITY (thousand kW)

1955 .....	3 148	2 481	667
1960 .....	4 800	3 642	1 158
1962 .....	5 729	4 126	1 603
1964 .....	6 840	4 894	1 946
1965 .....	7 411	5 391	2 020

## INDEX NUMBERS (1955=100)

1960 .....	152	147	174
1962 .....	182	166	240
1964 .....	217	197	292
1965 .....	235	217	303



### Geographical distribution of installed capacity — 1965

STATES	INSTALLED CAPACITY (thousand kW)	%
São Paulo .....	2 371	32.0
Minas Gerais .....	1 936	26.1
Rio de Janeiro .....	1 002	13.5
Bahia .....	458	6.2
Rio Grande do Sul .....	393	5.3
Paraná .....	204	2.8
Santa Catarina .....	196	2.6
Other .....	851	11.5
<b>BRAZIL .....</b>	<b>7 411</b>	<b>100.0</b>

## Capacity of major hydro-electric generating plants — 1966

### 1. In operation

GENERATING PLANTS	STATES	INSTALLED CAPACITY (thousand kW)
Furnas .....	Minas Gerais	900
Cubatão I .....	São Paulo	474
Cubatão II .....	São Paulo	390
Paulo Afonso .....	Bahia	375
Nilo Peçanha .....	Rio de Janeiro	330
Três Marias .....	Minas Gerais	260
Peixotos .....	Minas Gerais	175
Pombos .....	Rio de Janeiro	162
Fontes .....	Rio de Janeiro	154

# Capacity of major hydro-electric generating plants — 1966

## 2. In construction

GENERATING PLANTS	STATES	CAPACITY (thousand kW)		
		In operation	In construction	Total capacity (1)
Ilha Solteira .....	São Paulo	—	800	3 200
Paulo Afonso (2) .....	Bahia	375	540	1 815
Jupia .....	São Paulo	—	1 200	1 200
Furnas (2) .....	Minas Gerais	900	300	1 200
Estreito .....	Minas Gerais	—	600	900
Jaguara .....	Minas Gerais	—	400	600
Três Marias (2) .....	Minas Gerais	260	130	520
Peixotos (2) .....	Minas Gerais	175	300	475
Cachoeira Dourada (2) .	Goiás	28	104	430
Chavantes .....	São Paulo	—	400	400
Capivari-Cachoeira .....	Paraná	—	125	250
Boa Esperança .....	Piauí-Maranhão	—	108	216

(1) Total capacity to be installed. — (2) Enlargement of installed capacity.

# Production of electric energy — 1965

## 1. Summary

ITEMS	PRODUCTION	
	Quantity (million kWh)	%
<b>TOTAL</b> .....	30 128	100.0
By source of energy		
Hydro-electric .....	25 515	84.7
Thermo-electric .....	4 613	15.3
By groups of enterprises		
Public utility enterprises .....	26 250	87.1
Self-producing industrial enterprises ....	2 661	8.8
Other (1) .....	1 217	4.1

(1) Estimated production of enterprises for which data were not available, including those generating for both public use and own use.

## 2. Public utility enterprises

ITEMS	PRODUCTION	
	Quantity (million kWh)	%
Private enterprises .....	12 200	46.5
Rio Light .....	5 062	19.3
São Paulo Light .....	6 214	23.7
Other .....	924	3.5
Government enterprises .....	14 050	53.5
Eletrobrás Group .....	7 702	29.3
Other .....	6 348	24.2
<b>TOTAL</b> .....	26 250	100.0

## CONSUMPTION

Brazilian consumption of energy rests primarily on the mineral sector, at a rate of 46%; from this total, 24% refer to petroleum by-products, while hydro-electric power accounts for practically one fourth.

In the period 1955-65, consumption of electric energy in the country has little more than doubled, while per capita consumption increased one time and a half. Its geographical distribution for 1965 shows that a little over half the total is concentrated in the South, while the East absorbs one third. From the total consumption in the South, industry accounted for two and a half times the amount consumed by the residential sector. About the same proportions are to be found in the East. In the North and Central-West, proportions are reversed. To a certain extent, the proportion of electric power consumption by sectors reflects the economic structure of some of the regions: the North, as a producer of raw materials for the industrialized South and East, and the Central-West, which has its economic activity concentrated primarily on animal husbandry.

During the last decade, gasoline consumption has doubled, and its annual average rate of increase was sustained at a level of 300 million litres. During this period, the establishment of the motor vehicle industry and the improvement of highways have undoubtedly contributed to the increase in gasoline consumption. In the same decade, consumption of fuel oil increased at a rate of about three and a half.



Consumption of steel ingots showed a favorable increase in terms of percentage distribution during the three-year period 1963-65; imports have steadily declined, decreasing from 1.0 million m.t. to practically half that quantity, i.e., 532 thousand m.t.; simultaneously, domestic production, which contributed 2.8 million m.t. to the total consumption in 1963, reached the 3.0 million m.t. mark in 1965. From the aggregate data on steel ingots consumption, however, quantities exported, which went up from 18 thousand m.t. in 1963 to 616 thousand m.t. in 1965, must be deduced.

An analysis of the percentage structure of cement consumption in Brazil shows that 86% of the total is absorbed by the East and South — the first with 38.8% and the last with 47.4%.

Brazilian agriculture has been able to meet the expansion of domestic demand through an increase in new cultivated areas rather than through a more extensive utilization of machinery and fertilizers. This is perhaps the reason for the continuing imports of such materials, in order to meet the domestic market. The only exception is the case of phosphate fertilizers, for which production has been higher than imports: 69% as against 31%. As for nitrogen fertilizers, 79.5% of the consumption is imported, while the entire consumption of potassium fertilizers is covered by imports.

## Total consumption of energy — 1964

SOURCE OF ENERGY	CONSUMPTION OF ENERGY	
	Quantity (1 000 m.t. of crude oil equi- valent)	%
Mineral energy .....	18 240	46.1
Coal .....	1 677	4.2
Domestic production .....	639	1.6
Imported coal .....	1 038	2.6
Petroleum .....	16 512	41.8
Natural gas .....	51	0.1
Vegetable energy (wood, charcoal, etc.) ....	11 076	28.1
Hydraulic energy .....	10 165	25.8
TOTAL .....	39 481	100.0

## Consumption of electric energy

### 1. Summary — 1955-65

YEARS	CONSUMPTION		
	Quantity (1 000 000 kWh)	Index numbers (1955=100)	Per capita (kWh per inhabitant)
1955 .....	11 288	100	188
1960 .....	18 346	163	259
1963 .....	22 618	200	292
1965 .....	24 268	215	295



São Paulo, the largest Brazilian city

## Consumption of electric energy

### 2. Geographical distribution — 1965

REGIONS	CONSUMPTION (1 000 000 kWh)			
	Total	Residen- tial	Indus- trial	Other
North .....	144	64	19	61
North-East .....	1 073	287	440	346
East .....	8 719	1 901	4 449	2 369
South .....	13 354	2 788	6 871	3 695
Central-West .....	310	127	41	142
<b>BRAZIL (1) ...</b>	<b>24 268</b>	<b>5 320</b>	<b>12 108</b>	<b>6 840</b>

(1) Including estimates for enterprises for which data are not available.

# Consumption of petroleum products — 1955-66

## 1. Quantity

YEARS	CONSUMPTION			
	Gasoline	Distillate fuel oils	Residual fuel oils	Liquefied petroleum gas
	1 000 000 litres		1 000 m.t.	
1955 .....	3 384	1 646	3 902	(1) 258
1960 .....	4 286	2 954	5 157	353
1963 .....	5 493	3 692	6 099	624
1965 .....	5 982	4 068	5 471	751
1966 .....	6 574	4 410	5 680	833

(1) 1956.

## 2. Index numbers

YEARS	INDEX NUMBERS (1955=100)			
	Gasoline	Distillate fuel oils	Residual fuel oils	Liquefied petroleum gas (1)
1960 .....	127	179	132	137
1963 .....	162	224	156	242
1965 .....	177	247	140	291
1966 .....	194	268	146	323

(1) 1956=100.

## Consumption of coal

### 1. Summary — 1960-66

ITEMS	CONSUMPTION		
	1960	1963	1966
QUANTITY (1 000 m.t.)			
Production .....	1 276.8	1 541.6	1 740.3
Imports .....	928.3	1 007.4	1 475.8
<b>TOTAL</b> .....	<b>2 205.1</b>	<b>2 549.0</b>	<b>3 216.1</b>
PERCENTAGE DISTRIBUTION			
Production .....	57.9	60.5	54.1
Imports .....	42.1	39.5	45.9
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 2. By use — 1966

ITEMS	CONSUMPTION	
	Quantity (1 000 m.t.)	%
Railways .....	95.3	3.0
Water transportation .....	7.9	0.2
Generating of electric power .....	986.0	30.7
Iron and steel industry .....	1 749.8	54.4
Production of gas .....	364.8	11.3
Other uses .....	12.3	0.4
<b>TOTAL</b> .....	<b>3 216.1</b>	<b>100.0</b>

## Consumption of steel ingots — 1963-65

ITEMS	CONSUMPTION		
	1963	1964	1965

### QUANTITY (1 000 m.t.)

Production .....	2 812	3 044	2 978
Imports .....	1 007	624	532
Exports .....	18	164	616
<b>TOTAL</b> .....	<b>3 801</b>	<b>3 504</b>	<b>2 894</b>

### PERCENTAGE DISTRIBUTION

Production .....	74.0	86.9	102.9
Imports .....	26.5	17.8	18.4
Exports .....	0.5	4.7	21.3
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Consumption of non-ferrous metals — 1960-66

ITEMS	CONSUMPTION (1 000 m.t.)		PERCENTAGE	
	1960	1966	1960	1966
ALUMINIUM				
Production .....	16.6	33.0	44.3	43.5
Imports .....	20.9	42.9	55.7	56.5
<b>TOTAL</b> .....	<b>37.5</b>	<b>75.9</b>	<b>100.0</b>	<b>100.0</b>
COPPER				
Production .....	1.2	3.0	3.7	6.5
Imports .....	30.9	43.4	96.3	93.5
<b>TOTAL</b> .....	<b>32.1</b>	<b>46.4</b>	<b>100.0</b>	<b>100.0</b>
LEAD				
Production .....	10.0	17.5	46.3	65.5
Imports .....	11.6	9.2	53.7	34.5
<b>TOTAL</b> .....	<b>21.6</b>	<b>26.7</b>	<b>100.0</b>	<b>100.0</b>
NICKEL				
Production .....	0.0	0.7	0.0	35.0
Imports .....	0.9	1.3	100.0	65.0
<b>TOTAL</b> .....	<b>0.9</b>	<b>2.0</b>	<b>100.0</b>	<b>100.0</b>
TIN				
Production .....	1.3	1.5	72.2	88.2
Imports .....	0.5	0.2	27.8	11.8
<b>TOTAL</b> .....	<b>1.8</b>	<b>1.7</b>	<b>100.0</b>	<b>100.0</b>
ZINC				
Production .....	—	1.4	—	2.9
Imports .....	38.7	46.9	100.0	97.1
<b>TOTAL</b> .....	<b>38.7</b>	<b>48.3</b>	<b>100.0</b>	<b>100.0</b>



## Consumption of cement — 1966

REGIONS	CONSUMPTION	
	Quantity (1 000 m.t.)	%
North .....	71	1.2
North-East .....	471	7.8
East .....	2 343	38.8
South .....	2 860	47.4
Central-West .....	287	4.8
<b>BRAZIL</b> .....	<b>6 032</b>	<b>100.0</b>

## Consumption of paper — 1956-65

ITEMS	CONSUMPTION			
	1956	1960	1963	1965
QUANTITY (1 000 m.t.)				
Production .....	380.5	474.4	594.7	626.9
Imports .....	165.3	190.4	132.1	64.3
<b>TOTAL</b> .....	<b>545.8</b>	<b>664.8</b>	<b>726.8</b>	<b>691.2</b>
PERCENTAGE DISTRIBUTION				
Production .....	69.7	71.4	81.8	90.7
Imports .....	30.3	28.6	18.2	9.3
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Consumption of rubber — 1955-66

ITEMS	CONSUMPTION			
	1955	1960	1965	1966

### QUANTITY (1 000 m.t.)

Natural rubber (1) ...	39.9	44.5	26.6	30.9
Synthetic rubber (2)	0.4	16.6	37.8	51.4
Reclaimed rubber ....	6.5	10.3	9.8	12.3
<b>TOTAL</b> .....	<b>46.8</b>	<b>71.4</b>	<b>74.2</b>	<b>94.6</b>

### PERCENTAGE DISTRIBUTION

Natural rubber (1) ..	85.3	62.3	35.9	32.7
Synthetic rubber (2) ..	0.8	23.2	50.9	54.3
Reclaimed rubber ....	13.9	14.5	13.2	13.0
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(1) Including natural latex. — (2) Including synthetic latex.

## Consumption of caustic soda and soda ash — 1960-66

ITEMS	CONSUMPTION (1 000 m.t.)		PERCENTAGE	
	1960	1966	1960	1966
CAUSTIC SODA				
Production .....	69	70	40.6	32.0
Imports .....	101	149	59.4	68.0
<b>TOTAL</b> .....	<b>170</b>	<b>219</b>	<b>100.0</b>	<b>100.0</b>
SODA ASH				
Production .....	16	91	16.8	100.0
Imports .....	79	0	83.2	0.0
<b>TOTAL</b> .....	<b>95</b>	<b>91</b>	<b>100.0</b>	<b>100.0</b>

## Consumption of wheat — 1957-65

ITEMS	CONSUMPTION			
	1957	1960	1963	1965
QUANTITY (1 000 m.t.)				
Production .....	781	713	392	585
Imports .....	1 466	2 033	2 184	1 885
<b>TOTAL</b> .....	<b>2 247</b>	<b>2 746</b>	<b>2 576</b>	<b>2 470</b>
PERCENTAGE DISTRIBUTION				
Production .....	34.8	26.0	15.2	23.7
Imports .....	65.2	74.0	84.8	76.3
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Consumption of fertilizers — 1965

ITEMS	CONSUMPTION	
	Quantity (1 000 m.t.)	%
NITROGENOUS (N content)		
Production .....	14.5	20.5
Imports .....	56.1	79.5
<b>TOTAL</b> .....	<b>70.6</b>	<b>100.0</b>
PHOSPHATIC (P <sub>2</sub> O <sub>5</sub> content)		
Production .....	82.9	69.0
Imports .....	37.2	31.0
<b>TOTAL</b> .....	<b>120.1</b>	<b>100.0</b>
POTASH (K <sub>2</sub> O content)		
Imports .....	99.7	100.0
<b>TOTAL</b> .....	<b>99.7</b>	<b>100.0</b>

## AGRICULTURE

One of the characteristic features of the economy of a developing country — as is the case of Brazil — is the increasing pressure from domestic demand. The population of Brazil has more than doubled in the last 30 years. To face the increase in population, a progressive need for an increase in agricultural products is felt, not only to ensure food both for the existing millions and the new consumers, but also to improve living conditions.

Statistical evidence points out that the increasing offer of agricultural products in Brazil relies essentially on the occupation of new fertile land, since the introduction of new techniques in cultivation practices has not yet reached adequate levels. Fact is that the majority of traditionally agricultural areas — those adjoining the largest consuming centres — show rigid levels of production. These two facts explain the relatively constant levels of productivity per hectare, through time, in Brazilian agriculture.

The same applies to cattle raising, which from 1950 onwards expanded through the occupation of new areas towards the Central-West region and the northern and western zones of the southern state of Paraná. Thus, the traditional cattle raising areas of the states of São Paulo and Rio Grande do Sul show either a decline or a stabilization in the number of heads, while some areas of the Central-West region more than doubled their numbers.

Another characteristic of the economy of a developing country is, to a certain point, the unbalance between the industrial and agricultural sectors. In Brazil, this may be measured, for the decade 1950-60, by an actual increase in the industrial production index to a level of 80%, as against 40% for the agricultural sector.

Notwithstanding the increase in the industrial sector, the contribution of agriculture to the development of the gross national income in Brazil has maintained expressive levels. Thus, while presenting a lower rate of increase as compared with that of the industrial sector, agriculture contributes more than 80% of Brazil's foreign assets. Coffee, with 53%, cotton and sugar, with considerably lower percentages, are the main agricultural products in this total.

A general analysis of Brazilian agriculture would not furnish an adequate picture if regional differences were not considered. While in the Northeast 13% of the arable land is used for agricultural purposes, in the South this percentage is of more than 30%. As for cattle raising, while the North shows only 27% of its area used for this activity, the Central-West presents a percentage of more than 80%. As regards forestry, less than 10% of the area is used for this purpose in the East, while in the North this percentage is of more than 80%.

The level of development of the agricultural area also shows considerable differences from region to region. While the rate of mechanization of agriculture does not in itself constitute a measure of the development of the agricultural sector, the analysis of both production and productivity data for Brazilian agriculture show that considerable higher levels prevail in areas where better technology is employed. The highly developed South — which occupies about 10% of the whole Brazilian territory — accounts for more than 20% of the area belonging to agricultural holdings, and more than 45% of the total cultivated land. In the southern agricultural holdings are

to be found 80% of all tractors and plows enumerated at the 1960 census, hence the lower number of persons employed in agriculture. Noteworthy is the fact that in the decade 1950-60 the number of tractors used in Brazilian agriculture increased more than fivefold.

A close correlation may be seen between mechanization and the location of population. The highly developed South, which shows a higher degree of mechanization of agriculture, has the smallest rural population in the country, even lower than its own urban population. Note, however, that Brazilian population as a whole showed a trend towards urbanization in the period 1940-60.

Differences in agricultural patterns in Brazil are not restricted to regions: they are also apparent as regards the size of holdings. Thus, in holdings of 10 hectares and less, more than an average 10% of arable lands are used for crops, while in holdings of 100,000 hectares and over, less than 2% of the arable land is used for this purpose. On the other hand, in the former holdings less than 10% of the land is used for forestry, while in the latter, the percentage attains more than an average 80%.

# Geographical distribution of agricultural holdings — 1960

## 1. Absolute figures

REGIONS	NUMBER OF HOLDINGS (thousands)	AREA (1 000 hectares)	
		Total	Cultivated
North .....	138	32 341	459
North-East .....	965	45 999	6 838
East .....	955	65 587	7 793
South .....	1 131	60 078	13 253
Central-West .....	160	61 446	1 417
<b>BRAZIL</b> .....	<b>3 349</b>	<b>265 451</b>	<b>29 760</b>

## 2. Percentage distribution

REGIONS	NUMBER OF HOLDINGS	AREA	
		Total	Cultivated
North .....	4.1	12.2	1.5
North-East .....	28.8	17.3	23.0
East .....	28.5	24.7	26.2
South .....	33.8	22.6	44.5
Central-West .....	4.8	23.2	4.8
<b>BRAZIL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



# Size of agricultural holdings — 1960

## 1. Absolute figures

SIZE OF HOLDINGS (in hectares)	NUMBER OF HOLDINGS (thousands)	AREA (1 000 hectares)	
		Total	Cultivated
Under 10 .....	1 499	5 923	3 960
10 to 99 .....	1 495	47 698	13 302
100 to 999 .....	315	86 292	9 076
1 000 to 9 999 .....	31	72 795	2 962
10 000 and over .....	2	52 743	460
Area not reported .....	7	—	—
<b>TOTAL</b> .....	<b>3 349</b>	<b>265 451</b>	<b>29 760</b>

## 2. Percentage distribution

SIZE OF HOLDINGS (in hectares)	NUMBER OF HOLDINGS	AREA	
		Total	Cultivated
Under 10 .....	44.8	2.2	13.3
10 to 99 .....	44.6	18.0	44.7
100 to 999 .....	9.4	32.5	30.5
1 000 to 9 999 .....	0.9	27.4	10.0
10 000 and over .....	0.1	19.9	1.5
Area not reported .....	0.2	—	—
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



Coffee for exportation, stored at a Brazilian port



A coffee plantation (State of Paraná)

### Index numbers of agricultural production — 1956-65

YEARS	INDEX NUMBERS (1955=100)	YEARS	INDEX NUMBERS (1955=100)
1956 .....	90.9	1962 .....	159.4
1958 .....	109.2	1964 .....	132.2
1960 .....	147.2	1965 .....	171.0

## Main agricultural products — 1960-65

PRODUCTS	PRODUCTION		
	Quantity (1 000 m.t.)		Value (NCr\$ 1 000 000)
	1960	1965	
Coffee (dry cherries) .....	4 170	3 664	798
Corn (maize) .....	8 672	12 112	630
Rice (rough or paddy) .....	4 795	7 580	629
Sugar cane .....	56 927	75 853	579
Cotton (lint and seed) .....	1 609	1 986	493
Beans .....	1 731	2 290	324
Manioc .....	17 613	24 993	309
Bananas (1) .....	256	349	168
Peanuts (shells) .....	408	743	115
Wheat .....	713	585	112
Tobacco (leaf) .....	161	248	89
Potatoes .....	1 113	1 246	86

(1) Quantity in million bunches.

# Geographical distribution of selected agricultural crops — 1965

## 1. Coffee

STATES	PRODUCTION (1 000 m.t.)	%
Paraná .....	1 756	47.9
São Paulo .....	993	27.1
Minas Gerais .....	431	11.8
<b>BRAZIL</b> .....	<b>3 664</b>	<b>100.0</b>

## 2. Cotton

STATES	PRODUCTION (1 000 m.t.)	%
São Paulo .....	626	31.5
Paraná .....	350	17.6
Ceará .....	271	13.6
<b>BRAZIL</b> .....	<b>1 986</b>	<b>100.0</b>

## 3. Sugar cane

STATES	PRODUCTION (1 000 m.t.)	%
São Paulo .....	29 476	38.9
Pernambuco .....	10 484	13.8
Minas Gerais .....	7 498	9.9
<b>BRAZIL</b> .....	<b>75 853</b>	<b>100.0</b>

#### 4. Other crops

STATES	PRODUCTION (1 000 m.t.)	%
COCOA		
Bahia .....	155	96.3
BRAZIL .....	161	100.0
WHEAT		
Rio Grande do Sul .....	421	72.0
BRAZIL .....	585	100.0
GRAPES		
Rio Grande do Sul .....	358	65.0
BRAZIL .....	551	100.0
PEANUTS		
São Paulo .....	672	90.4
BRAZIL .....	743	100.0
SOYBEANS		
Rio Grande do Sul .....	463	88.5
BRAZIL .....	523	100.0
SISAL (agave)		
Paraíba .....	111	45.9
BRAZIL .....	242	100.0
JUTE		
Amazonas .....	48	77.4
BRAZIL .....	62	100.0

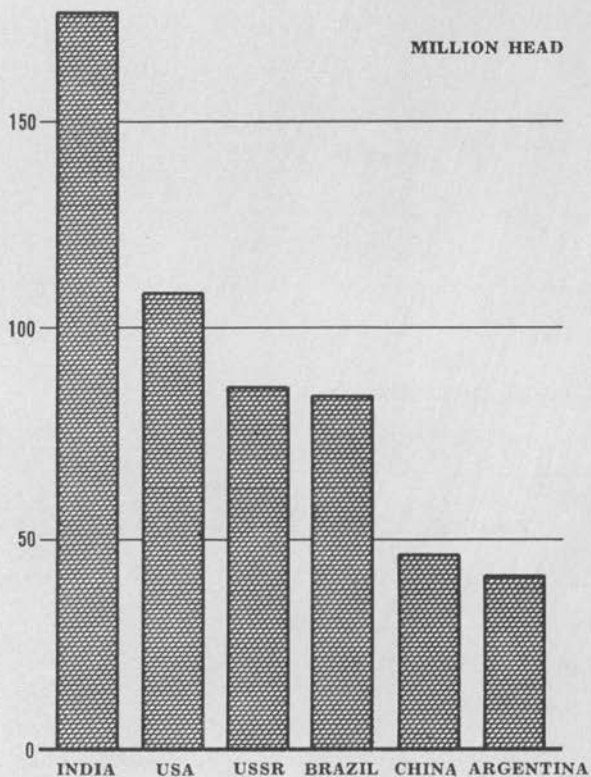
# **Production of selected agricultural crops in major producing countries — 1964**

COUNTRIES	PRODUCTION (1 000 m.t.)	COUNTRIES	PRODUCTION (1 000 m.t.)
COFFEE (clean)		SUGAR CANE	
BRAZIL .....	1 042	India .....	122 127
Colombia .....	486	BRAZIL .....	66 399
Ivory Coast .....	202	Cuba .....	41 420
COCOA		CORN (maize)	
Ghana .....	580	United States .....	91 032
Nigeria .....	298	USSR .....	19 700
BRAZIL .....	154	China (Mainland) (1) ..	16 849
Ivory Coast .....	148	BRAZIL .....	9 408
COTTON (lint)		BEANS	
United States .....	3 305	India .....	2 024
USSR .....	1 800	BRAZIL .....	1 951
India .....	973	China (Mainland) (1) ..	1 129
China (Mainland) (1) ..	868	Mexico .....	891
BRAZIL .....	590		

(1) 1953.

## CATTLE

MILLION HEAD





## Livestock — 1955-65

ITEMS	NUMBER (thousand head)		
	1955	1960	1965
Cattle .....	63 608	73 962	90 629
Goats .....	9 879	11 195	14 314
Hogs .....	38 606	47 944	63 020
Horses, asses and mules .....	12 728	14 534	17 230
Sheep .....	18 484	18 162	22 327

## Geographical distribution of livestock — 1965

### 1. Cattle and hogs

REGIONS	CATTLE	HOGS
	Percentages	
North .....	1.9	2.5
North-East .....	11.5	15.6
East .....	32.8	27.6
South .....	30.8	42.2
Central-West .....	23.0	12.1
<b>BRAZIL</b> .....	100.0	100.0

## Geographical distribution of livestock — 1965

### 2. Sheep, goats, horses, asses and mules

REGIONS	SHEEP	GOATS	HORSES, ASSES AND MULES
	Percentages		
North .....	0.8	1.0	1.1
North-East .....	26.0	55.2	26.7
East .....	14.6	28.9	33.7
South .....	56.7	12.2	27.2
Central-West .....	1.9	2.7	11.3
<b>BRAZIL</b> .....	100.0	100.0	100.0

### Principal countries in the world in number of cattle and hogs — 1964

COUNTRIES	NUMBER (million head)	COUNTRIES	NUMBER (million head)
<b>CATTLE</b>		<b>HOGS</b>	
India (1) .....	176	China (Mainland) (2) ..	180
United States .....	107	<b>BRAZIL</b> .....	59
USSR .....	85	United States .....	56
<b>BRAZIL</b> .....	84	USSR .....	41
China (Mainland) (2) ..	44	Western Germany .....	17
Argentina (3) .....	40	Poland .....	13

(1) 1961. — (2) — 1960. — (3) 1963.

## Forestry — 1960-65

PRODUCTS	PRODUCTION		
	Quantity (1 000 m.t.)		Value (NCr\$ 1 000 000)
	1960	1965	
Babassu nuts .....	101	171	36.6
Natural rubber .....	31	38	28.5
Maté .....	111	123	16.4
Carnauba wax .....	11	13	10.2
Brazil nuts .....	39	41	8.7
Piassava (fiber) .....	16	19	5.6
Oiticica .....	38	52	4.5
Guaxima and malva (fibers)	12	16	4.0

## Geographical distribution of forestry production — 1965

STATES	PRODUCTION (1 000 m.t.)	%	STATES	PRODUCTION (1 000 m.t.)	%
<b>BABASSU NUTS</b>			<b>MATÉ</b>		
Maranhão .....	144	84.2	Rio Grande do Sul .....	45	36.6
<b>BRAZIL</b> ..	171	100.0	Paraná .....	38	30.9
<b>NATURAL RUBBER</b>			Santa Catarina ..	28	22.8
Amazonas .....	13	34.2	<b>BRAZIL</b> ..	123	100.0
Acre .....	9	23.7	<b>CARNAUBA WAX</b>		
<b>BRAZIL</b> ..	38	100.0	Ceará .....	5	38.5
<b>BRAZIL NUTS</b>			Plaui .....	3	23.1
Pará .....	26	63.4	Rio Grande do Norte .....	2	15.4
Amazonas .....	9	22.0	<b>BRAZIL</b> ..	13	100.0
<b>BRAZIL</b> ..	41	100.0			

## TRANSPORT AND COMMUNICATIONS

Up to the years '30 the domestic demand for transportation was practically divided between coastal shipping and the railroads, which were adequate for the requirements of the country's economy, basically structured for the exportation of primary products.

During the subsequent 25 years, a boom in industrialization developed a domestic market which required more rapid means of transportation. Post-war changes, with the introduction of both new patterns in the distribution of trade currents and of technological advances, were decisive factors in the development of highways, which steadily began increasing its participation in the total offer of transportation in Brazil. It may even be said that the growing pace of economic development is directly correlated to the flexibility and rapidity Brazilian highway transport has been able to adjust to the changing patterns of industrialization.

Another factor in the development of an efficient highway system was the development of agriculture in order to satisfy the ever increasing domestic demand for agricultural products, which was met through the continuous search for new lands — progressively distanced from the consuming centres — rather than through large scale mechanization.

Still another factor in the development of the highway system was the restriction to maritime transportation brought about by the Second World War with a conse-

quent partial shifting of cargo transportation to rail and motor carriers. At the end of the war operations, foreign exchange surpluses were employed largely in the expansion of domestic highways, thus allowing for their growing participation in passenger and cargo transportation up to 1954. The next three years showed a relative stability in highway transportation in terms of the percentage structure of demand, but beginning with 1958 a new boom was registered with the establishment of the motor vehicle industry, the construction of new roads, and the paving of existing ones — the latter on a scale fivefold that of the preceding decade.

The latest available data show that, notwithstanding a slight recuperation in railroad traffic, which reached 19.2% in terms of the demand structure as against 16.8% in 1961 — highway transportation kept the highest participation in the whole transportation system, with a percentage of 64.5% of the total, while a relative decline was shown in maritime transportation with 16.1% as against 20.8% in 1961.

Between 1950 and 1963, Brazilian cargo traffic showed an average 10% increase per year. However, this total increase shows differences as to particular sectors in the complex. Taking 1950 as a base-year, the participation of highway transportation in the total traffic development presented a continuous and rapid growth and in a way constituted its direct influencing factor during that period. In fact, as early as 1954, it showed an index twice as high, while the maritime and railroad sectors scored levels of 120 and 114, respectively. At the end of the period, similar indexes reached 577 for highways, as compared with 167 for maritime, 223 for the railroads, and 245 for the airway sectors.

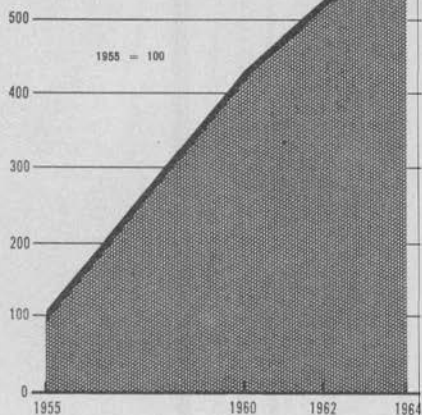
In recent years, the structural disequilibrium of the demand for transportation has constituted a problem for the country's different economic sectors. The establishment of a nation-wide railway system, under the statutes of a public service enterprise, was one of the measures taken with the aim of minimizing the incidence of such disequilibrium through the rationalization of railroad

transportation. A sectorial trend for a growing cargo traffic in detriment to passenger traffic is beneficial to the country's economy. A similar significance might be given to the establishment of the motor vehicle industry, as well as to the growing rate in road paving, which created the infra-structural conditions needed for the manufacture of motor buses, at a rate adequate for the requirements of a growing demand for both inter-state and urban motor transportation.

On the other hand, maritime transportation, while presenting a decreasing participation in the total demand for transportation, is progressively increasing its significance in the country's economy. Domestic consumption of petroleum by-products is directly correlated to the growth of the domestic merchant marine fleet, which is the carrier of all petroleum still imported by Brazil.

## PAVED ROADS

INDEX NUMBERS



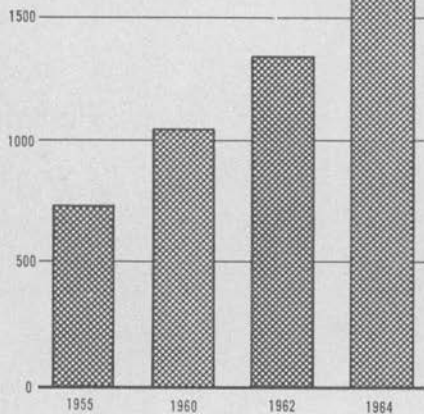
## ROADS

### 1. Summary — 1955-64

YEARS	LENGTH (thousand km)		INDEX NUMBERS (1955=100)	
	Total	Paved	Total	Paved
1955 .....	459.7	3.1	100	100
1960 .....	466.9	13.4	102	432
1962 .....	524.4	16.4	114	529
1964 .....	548.5	18.7	119	603

# **MOTOR VEHICLES IN USE**

THOUSANDS



## 2. Federal, State and County roads — 1964

ITEMS	LENGTH (thousand km)		PERCENTAGE	
	Total	Paved	Total	Paved
Federal roads .....	39.7	13.1	7.3	70.1
State roads .....	83.5	5.6	15.2	29.9
County roads .....	425.3	—	77.5	—
<b>TOTAL .....</b>	<b>548.5</b>	<b>18.7</b>	<b>100.0</b>	<b>100.0</b>



## Motor vehicles in use

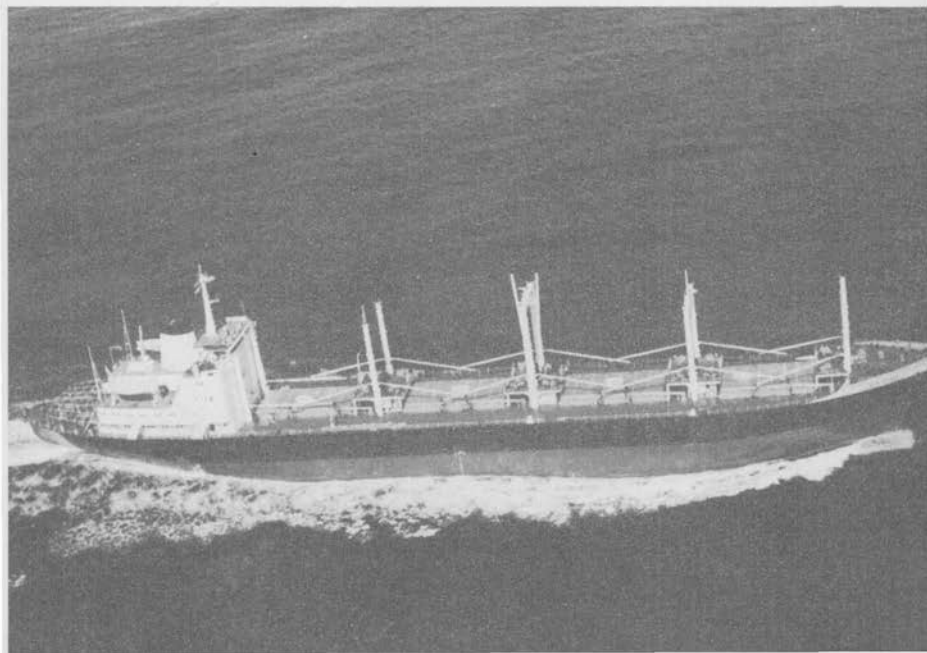
### 1. Summary — 1955-64

YEARS	MOTOR VEHICLES (thousands)			INDEX NUMBERS (1955=100)		
	Total	Passenger vehicles	Commercial vehicles	Total	Passenger vehicles	Commercial vehicles
1955 .....	726	411	315	100	100	100
1960 .....	1 046	647	399	144	157	127
1962 .....	1 340	895	445	185	218	141
1964 .....	1 815	1 307	508	250	318	161

### 2. Motor vehicles, by types — 1964

ITEMS	MOTOR VEHICLES (thousands)	%
Passenger vehicles .....	1 307	72.0
Passenger cars .....	1 032	56.8
Buses and utility vehicles .....	176	9.7
Other .....	99	5.5
Commercial vehicles .....	508	28.0
Trucks .....	387	21.3
Other .....	121	6.7
<b>TOTAL</b> .....	<b>1 815</b>	<b>100.0</b>

A Brazilian-built vessel of 13,000 dwt tons



## RAILWAYS

### 1. Length of lines — 1964

ITEMS	LENGTH OF LINES (km)	%
<b>TOTAL</b> .....	34 636	100.0
<b>By ownership</b>		
Federal Government .....	26 734	77.2
State Governments .....	7 104	20.5
Private enterprises .....	798	2.3
<b>By traction</b>		
Electric .....	2 473	7.1
Other .....	32 163	92.9
RFFSA (Federal Railway System) .....	26 519	76.6
Other railways .....	8 117	23.4

### 2. Rolling stock, personnel, revenue and expenditure — 1964

ITEMS	DATA
Number of railways in operation .....	31
<b>Rolling stock</b>	
Locomotives (number) .....	2 439
Steam .....	1 099
Diesel .....	1 155
Electric .....	185
Passenger cars (number) .....	4 444
Freight cars (number) .....	52 644
Personnel (monthly average) (thousands) .....	205
<b>Financial data (NCrS 1 000)</b>	
Revenue .....	142 946
Expenditure .....	433 082

### 3. Traffic — 1955-64

ITEMS	DATA		
	1955	1960	1964
<b>Passengers</b>			
Number (millions) .....	364	421	440
Passenger-km (millions) ...	12 686	15 395	17 004
<b>Freight</b>			
Tons (million m.t.) .....	41	44	52
Ton-km (millions) .....	9 069	12 079	16 387

### 4. Largest railways in length of lines — 1964

RAILWAYS	LENGTH OF LINES (km)	%
Central-West .....	4 001	11.5
Rio Grande do Sul .....	3 482	10.1
Central .....	3 082	8.9
Paraná-Santa Catarina .....	2 936	8.5
North-East .....	2 859	8.3
Leopoldina .....	2 667	7.7
Eastern Brazil .....	2 471	7.1
Paulista .....	2 081	6.0
Sorocabana .....	2 078	6.0
Mogiiana .....	1 755	5.1
Other .....	7 224	20.8
<b>TOTAL</b> .....	<b>34 636</b>	<b>100.0</b>

# WATERBORNE TRANSPORTATION

## 1. Merchant fleet — 1965

ITEMS	VESSELS 100 TONS AND OVER		PERCENTAGE	
	Number	Cargo tonnage (1 000 m.t.)	Number	Cargo tonnage
<b>TOTAL</b> ....	435	1 402	100.0	100.0
<b>By type</b>				
Dry cargo and mixed .....	370	828	85.1	59.1
Tanker .....	65	574	14.9	40.9
<b>By ownership</b>				
Government .....	182	1 052	41.8	75.0
Private .....	253	350	58.2	25.0

## 2. Vessels entered in the ports — 1955-65

YEARS	VESSELS ENTERED		INDEX NUMBERS (1955=100)	
	Number	Registered tonnage (thousand tons)	Number	Registered tonnage
1955 .....	35 008	50 677	100	100
1960 .....	31 081	59 294	89	117
1965 .....	22 054	59 311	63	117

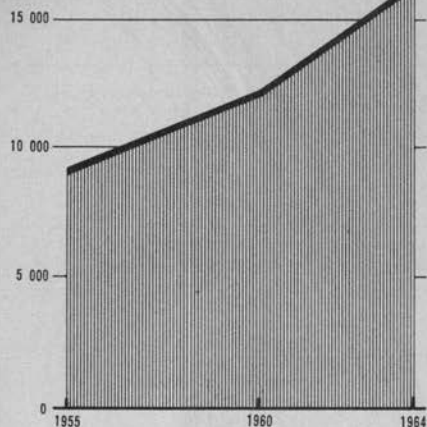
## 3. Vessels entered in the principal ports — 1965

PORTS	VESSELS ENTERED		PERCENTAGE	
	Number	Registered tonnage (thousand tons)	Number	Registered tonnage
Santos .....	3 283	14 633	14.9	24.7
Rio de Janeiro .....	2 618	12 465	11.9	21.0
Vitória .....	949	5 311	4.3	8.9
Salvador .....	1 001	4 206	4.5	7.1
São Sebastião .....	498	4 152	2.3	7.0
Recife .....	1 060	2 969	4.8	5.0
Paranaguá .....	807	2 483	3.7	4.2
Rio Grande .....	727	2 170	3.3	3.7
Belém .....	865	1 345	3.9	2.3
Other .....	10 246	9 577	46.4	16.1
<b>TOTAL .....</b>	<b>22 054</b>	<b>59 311</b>	<b>100.0</b>	<b>100.0</b>

**RAILWAY TRAFFIC**

(ton/km)

MILLIONS



#### 4. Vessels entered in the ports of Rio de Janeiro and Santos, by flag — 1965

ITEMS	VESSELS ENTERED		PERCENTAGE	
	Number	Registered tonnage (thousand tons)	Number	Registered tonnage

**Port of Rio de Janeiro**

Brazilian flag .....	1 008	3 014	38.5	24.2
Foreign flags .....	1 610	9 451	61.5	75.8
<b>TOTAL .....</b>	<b>2 618</b>	<b>12 465</b>	<b>100.0</b>	<b>100.0</b>

**Port of Santos**

Brazilian flag .....	1 145	3 634	34.9	24.8
Foreign flags .....	2 138	10 999	65.1	75.2
<b>TOTAL .....</b>	<b>3 283</b>	<b>14 633</b>	<b>100.0</b>	<b>100.0</b>

# CIVIL AVIATION

## Traffic of the principal airports — 1965

AIRPORTS	NUMBER OF LANDINGS	PASSENGERS BOARDED (thousands)	FREIGHT LOADED (m.t.)	MAIL LOADED (m.t.)
São Paulo .....	19 404	488	7 558	844
Rio de Janeiro				
Santos Dumont ...	14 885	462	6 679	1 197
Galeão .....	8 808	242	2 748	852
Salvador .....	6 357	80	599	92
Recife .....	5 904	108	1 382	162
Brasília .....	5 003	85	717	85
Curitiba .....	4 669	44	256	52
Belém .....	4 311	85	3 900	182
Belo Horizonte .....	4 204	76	392	47
Pôrto Alegre .....	4 038	91	2 284	162

# COMMUNICATIONS

## Telephones in use — 1955-64

YEARS	TELEPHONES IN USE (thousands)	INDEX NUMBERS (1955=100)
1955 .....	811	100
1958 .....	955	118
1961 .....	1 108	137
1964 .....	1 283	158



The Congress Palace (Brasília)



## TRADE

In the last decade, Brazilian trade balance has been decidedly favorable. In fact, in the whole ten-year period 1957-66, only in 1960 and 1962 did deficits occur, and in both cases they represented relatively small amounts — 23 and 89 million dollars. Actually, in the last three years, results were even higher than shown in the recorded data, since imports were effected at CIF values, while exports were at FOB values. Since a considerable portion of Brazilian imports and exports — especially oil imports — are shipped under Brazilian flag, this fact brings the actual balance of Brazilian foreign trade transactions to a rather more meaningful level. In 1965 and 1966, the superavit of the Brazilian trade balance in FOB terms amounted to more than a thousand million dollars.

Brazilian exports for 1966 reached a new high, by almost 2 thousand million dollars, showing an increase of about 10% over 1965. Volume exported in 1966 totaled approximately 20 million metric tons.

The main export product is coffee, which accounts for about 44% of the total of Brazilian exports. In 1966, coffee exports brought into Brazil a total of 764 million dollars in foreign exchange, with coffee derivatives bringing in a further 10 million dollars. Brazil keeps its place as first coffee producing and exporting country in the world. Her export quota for the crop year 1966/67 is 17.3 million bags. In 1966, the chief markets for Brazilian coffee were the United States (41.6%), Italy, Sweden, Western Germany and Denmark. Brazilian exports of coffee beans amounted to a total of 16.8 million bags.

Four other products contribute largely to Brazilian trade balance: cotton, iron ore, sugar, and cocoa.

Brazil ranks amongst the five leading cotton exporting countries in the world, her chief markets being Western Germany, Japan, Hong Kong, The Netherlands, South Africa, and the USSR. In 1966, Brazilian cotton exports amounted to 236 thousand metric tons, valued at 111 million dollars. Exports values undergo continuous pressure from the international market, with the accumulation of large stocks and increases in production of artificial fibers. The increase in quantities exported, however, partially compensates for the decline in prices.

Brazilian exports of iron ore average more than 12 million metric tons per year. The increase in exports of iron ore derives from a successful new Brazilian export policy; a short range estimate allows for a further increase in the quantities exported to a level compatible with national reserves of this ore. One measure taken by the Government to further the exports of iron ore was the construction, in the vicinity of the Eastern coastal city of Vitória, of the port of Tubarão, directly connected by a railway to the producing area, which is the largest of its kind in the world.

The latest technological advances have been incorporated in the processing of iron ore in order to increase its competitiveness on the international market. Western Germany, the United States, Japan, Italy, and the United Kingdom are the chief markets for Brazilian iron ore.

Brazilian sugar exports, as is the case for other Brazilian export products, are conditioned both by international agreements and market fluctuations. However, the country has been able to keep a significant participation in world exports, contributing considerable quantities to the international market in the last two years: 760 thousand metric tons at a value of 56.7 million dollars in 1965, and 1,004 thousand metric tons at a value of 80.5 million dollars in 1966. The chief markets for Brazilian sugar are the United States and the United Kingdom.

The year 1966 was quite favorable for Brazilian cocoa, as is also its near-future prospect on the international market. Brazilian cocoa meets with strong competition from African producers, especially Ghana, that benefit from favorable tariffs from their European ex-mother-countries. Brazilian exports of cocoa in 1965 and 1966 totaled more than 100 thousand metric tons per year.

Manganese ore exports are still another significant source of foreign exchange, with a yearly average of one million metric tons, destined chiefly to the United States.

In 1966 foodstuffs exports — excluding coffee, sugar and cocoa — earned for Brazil more than 200 million dollars; chief products are rice, meat, bran, maize, and Brazil nuts.

Brazilian exports of manufactured goods, while still small, are beginning to show in the country's trade balance. Brazil exports iron and steel rolling and casting products, industrial machinery, office machines, sewing machines, motor vehicles, textiles, chemical and pharmaceutical products, canned food, etc.

According to value, the chief markets for Brazilian exports are the United States — which accounts for about one third of all exports — Western Germany, Argentina, Italy, The Netherlands, the United Kingdom, France, Sweden, Japan, and Belgium.

Chief Brazilian exporting ports are Santos, Paranaguá, Rio de Janeiro, and Vitória.

Composition of Brazilian imports have been strongly influenced by both the establishment of domestic industries and the intensive exploitation of the country's resources. An example is the importation of motor vehicles and their accessories, as well as that of petroleum and its by-products.

Petroleum still represents more than 10% of total Brazilian imports and in fact has greatly increased during the last decade, reaching in 1966 more than 11 million metric tons. On the other hand, imports of petroleum by-products declined considerably during the same period.

Domestic production of crude oil, and especially that of petroleum by-products, already cover a significant portion of domestic consumption. The country's development, the establishment of new industries, and the overwhelming increase of motor vehicles in use — this due to the establishment of the motor vehicle industry in the country — brought about a significant increase in the consumption of petroleum by-products, maintaining imports at high levels.

As regards wheat, Brazil is largely dependent on imports. Wheat consumption is estimated at about 3 million metric tons per year, of which only 20% are produced locally.

Imports of motor vehicles and accessories, which as recently as 1960 represented the highest import item in terms of value, are today reduced to less than 100 million dollars (45,4 million in 1965, 86,9 million in 1966). Current production of motor vehicles fills a considerable portion of the demand.

A certain increase was recorded in imports of agricultural, industrial (especially textile), scientific and technical machinery, as a consequence of the development of Brazilian industry and agriculture. The same applies to imports of raw or semiprocessed materials, such as copper, zinc, aluminium, certain types of iron and steel, fertilizers, chemical and pharmaceutical products.

Brazilian imports amount to more than one thousand million dollars per year. In 1966, they reached 1,500 million dollars. The United States, Western Germany, and Argentina are the chief Brazilian sources of imports, followed by Venezuela, which sends to Brazil almost exclusively crude oil. In 1966, nearly 40% of all Brazilian imports came from the United States (590 million dollars).

**FOREIGN TRADE**  
**Trade balance — 1955-66**

YEARS	VALUE (US\$ 1 000 000)		
	Exports (f.o.b.)	Imports (c.i.f.)	Surplus (+) or deficit (—)
1955 .....	1 423	1 307	+ 116
1960 .....	1 269	1 462	— 193
1962 .....	1 214	1 475	— 261
1964 .....	1 430	1 263	+ 167
1965 .....	1 595	1 096	+ 499
1966 .....	1 741	1 496	+ 245

# Exports and imports — 1955-66

## 1. Quantity

YEARS	QUANTITY (1 000 m.t.)		INDEX NUMBERS (1955=100)	
	Exports	Imports	Exports	Imports
1955 .....	6 186	13 945	100	100
1960 .....	10 608	15 610	171	112
1962 .....	12 361	16 786	200	120
1964 .....	14 587	18 174	236	130
1965 .....	19 679	16 633	318	119
1966 .....	20 103	19 392	325	139

## 2. Value

YEARS	VALUE (US\$ 1 000 000)		INDEX NUMBERS (1955=100)	
	Exports	Imports	Exports	Imports
1955 .....	1 423	1 307	100	100
1960 .....	1 269	1 462	89	112
1962 .....	1 214	1 475	85	113
1964 .....	1 430	1 263	100	97
1965 .....	1 595	1 096	113	84
1966 .....	1 741	1 496	122	114

Buses ready for exportation





# Chief exported commodities — 1960-66

## 1. Value

### a) Absolute figures

ITEMS	VALUE (US\$ 1 000 000)		
	1960	1965	1966
Coffee beans .....	712.7	706.6	764.0
Cotton, raw .....	45.6	95.7	111.0
Iron ore .....	54.4	103.0	100.2
Sugar .....	57.8	56.7	80.5
Cocoa .....	94.2	41.1	71.7
Beans .....	69.2	27.7	50.7
Butter, powder and paste ..	25.0	13.4	21.0
Pinewood, sawn .....	42.7	53.9	57.0
Rice .....	0	23.8	33.3
Meat .....	13.8	47.4	32.4
Fresh and frozen .....	4.2	27.0	17.9
Preserved and canned .....	9.6	20.4	14.5
Corn (maize) .....	0.4	27.9	31.8
Bran .....	6.8	18.4	30.0
Manganese ore .....	29.8	29.2	26.8
Wool, raw .....	1.1	15.0	25.5
Sisal (agave) .....	22.3	24.6	23.2
Castor oil .....	9.7	26.8	22.3
Tobacco, leaf .....	18.6	26.2	21.9
Hides and skins, raw .....	13.1	18.7	20.8
Brazil nuts .....	14.3	11.6	15.1
Soybeans .....	—	7.3	13.0
Carnauba wax .....	17.8	10.8	9.7
Other .....	113.7	250.8	251.2
<b>TOTAL .....</b>	<b>1 268.8</b>	<b>1 595.5</b>	<b>1 741.4</b>

## Chief exported commodities — 1960-66

### 1. Value

#### b) Percentage distribution

ITEMS	VALUE (%)		
	1960	1965	1966
Coffee beans .....	56.2	44.3	43.9
Cotton, raw .....	3.6	6.0	6.4
Iron ore .....	4.3	6.5	5.8
Sugar .....	4.6	3.6	4.6
Cocoa .....	7.4	2.6	4.1
Pinewood, sawn .....	3.4	3.4	3.3
Other .....	20.5	33.6	31.9
<b>TOTAL .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Chief exported commodities — 1960-66

### 2. Quantity

ITEMS	QUANTITY (1 000 m.t.)			INDEX NUMBERS (1960=100)	
	1960	1965	1966	1965	1966
Coffee beans (1) .....	16 819	13 582	16 832	81	100
Cotton, raw .....	95	195	236	205	248
Iron ore .....	5 160	12 731	12 910	247	250
Sugar .....	769	760	1 004	99	131
Cocoa .....	149	110	135	74	91
Pinewood, sawn .....	559	701	722	125	129

(1) Quantity in 1 000 bags.

## Exports of selected manufactured goods — 1965-66

ITEMS	VALUE (US\$ 1 000)	
	1965	1966
Iron and steel (bars, sheets, plates, tubes, etc.) .....	43 949	19 401
Industrial machinery and apparatus .....	4 436	7 300
Electrical machinery, apparatus and appliances .....	4 392	4 902
Office machines .....	2 895	6 379
Typewriters .....	612	2 408
Punching, tabulating and processing machines .....	1 791	3 006
Sewing machines, parts and accessories ....	2 934	2 000
Road-building machines .....	1 631	1 883
Pumps .....	1 134	1 178
Vehicles and accessories .....	7 291	5 140
Buses .....	1 613	2 429
Accessories for motor vehicles .....	1 204	1 453
Ships and boats .....	3 842	4
Tires and tubes for vehicles .....	3 455	1 620
Textile manufactures .....	10 989	6 650
Cotton fabrics .....	4 939	2 176
Jute fabrics .....	4 234	2 093
Sisal cordage .....	982	1 650
Medicinal and pharmaceutical products ....	1 673	2 407
Chemicals, organic .....	5 150	13 981
Chemicals, inorganic .....	1 489	1 046
Orange juice .....	1 884	4 737

## Main export markets — 1960-66

### 1. Absolute figures

COUNTRIES	VALUE (US\$ 1 000 000)			QUANTITY (1 000 m.t.)
	1960	1965	1966	
United States .....	564	520	581	4 971
Western Germany ....	90	141	134	3 593
Argentina .....	56	141	113	1 625
Italy .....	39	85	109	1 422
Netherlands .....	52	81	89	512
United Kingdom ....	65	62	74	1 146
France .....	43	56	60	878
Sweden .....	42	55	55	101
Japan .....	31	30	41	2 049
Belgium-Luxembourg .	25	48	39	575
Denmark .....	25	39	38	59
USSR .....	13	29	32	70
Norway .....	20	20	24	101
Spain .....	15	25	24	220
Canada .....	17	25	23	455

## Main export markets — 1960-66

### 2. Percentage distribution

COUNTRIES	VALUE (%)		
	1960	1965	1966
United States .....	44.4	32.6	33.4
Western Germany .....	7.1	8.8	7.7
Argentina .....	4.4	8.8	6.5
Italy .....	3.1	5.3	6.3
Netherlands .....	4.1	5.1	5.1
United Kingdom .....	5.1	3.9	4.2
Other .....	31.8	35.5	36.8
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Exports of coffee, cotton, iron ore, sugar and pinewood,  
by main countries of destination — 1966**

COUNTRIES OF DESTINATION	EXPORTS		COUNTRIES OF DESTINATION	EXPORTS	
	Value (US\$ 1 000 000)	%		Value (US\$ 1 000 000)	%
COFFEE			IRON ORE		
United States ...	318.2	41.6	United States ...	27.1	27.0
Italy .....	52.2	6.8	Western Germany	19.6	19.6
Sweden .....	49.9	6.5	Japan .....	12.5	12.5
Western Ger- many .....	33.3	4.4	<b>TOTAL ..</b>	<b>100.2</b>	<b>100.0</b>
Denmark .....	32.2	4.2	SUGAR		
<b>TOTAL ..</b>	<b>764.0</b>	<b>100.0</b>	United States ..	57.3	71.2
COTTON			United Kingdom	7.7	9.6
Western Germany	20.2	18.2	<b>TOTAL ..</b>	<b>80.5</b>	<b>100.0</b>
Japan .....	11.9	10.7	PINEWOOD		
Hong Kong .....	11.6	10.5	Argentina .....	28.5	50.0
Netherlands .....	10.0	9.0	United Kingdom	13.1	23.0
<b>TOTAL ..</b>	<b>111.0</b>	<b>100.0</b>	Western Germany	5.0	8.8
			<b>TOTAL ..</b>	<b>57.0</b>	<b>100.0</b>

## Exports, by economic areas — 1965

ECONOMIC AREAS	EXPORTS	
	Value (US\$ 1 000 000)	%
America (excluding Latin America) .....	546.3	34.2
Latin America .....	202.6	12.7
Latin American Free Trade Association (LAFTA) .....	197.4	12.4
Other countries .....	5.2	0.3
Eastern Europe .....	101.6	6.4
Western Europe .....	659.0	41.3
European Economic Community (Common Market) .....	412.4	25.8
European Free Trade Association (EFTA) .....	193.0	12.1
Other countries .....	53.6	3.4
Asia (excluding Middle East) .....	48.2	3.0
Middle East .....	12.8	0.8
Africa (excluding Middle East) .....	22.4	1.4
Oceania .....	2.6	0.2
<b>TOTAL</b> .....	<b>1 595.5</b>	<b>100.0</b>

### Main ports of exportation — 1966

PORTS	QUANTITY (1 000 m.t.)	VALUE (US\$ 1 000 000)	PERCENTAGE	
			Quantity	Value
Santos .....	2 167	563.3	10.8	32.4
Paranaguá .....	616	283.9	3.1	16.3
Rio de Janeiro .....	3 117	180.0	15.5	10.3
Vitória .....	10 282	159.2	51.1	9.1
Salvador .....	339	72.7	1.7	4.2
Rio Grande .....	443	67.6	2.2	3.9
Other .....	3 139	414.7	15.6	23.8
<b>TOTAL .....</b>	<b>20 103</b>	<b>1 741.4</b>	<b>100.0</b>	<b>100.0</b>



# Chief imported commodities — 1960-66

## 1. Value

ITEMS	VALUE (US\$ 1 000 000)		
	1960	1965	1966
Wheat .....	142.7	135.9	169.9
Petroleum, crude .....	112.6	156.4	164.6
Vehicles and accessories .....	198.7	45.4	86.9
Chemicals, organic .....	36.2	59.3	78.6
Copper .....	21.9	26.6	67.2
Petroleum products .....	146.4	43.2	50.9
Industrial machinery, excl. textile equipment ..	72.5	20.0	47.1
Professional and scientific equipment .....	19.1	22.7	34.1
Motive machines .....	35.0	28.8	32.3
Coal and coke .....	18.4	22.6	31.8
Fertilizers .....	23.8	26.4	26.0
Business machines .....	9.7	15.9	23.0
Aluminium .....	8.1	11.8	22.4
Road-building machinery .....	23.7	10.6	20.5
Codfish .....	12.3	11.2	19.4
Iron and steel .....	9.4	11.8	18.8
Generators, motors and similar equipment ....	14.6	6.8	18.0
Paper and paper products .....	37.7	15.2	17.1
Telecommunications equipment .....	9.7	11.3	16.5
Machinery for the textile industry .....	7.6	9.7	16.3
Drugs and medicines .....	10.9	10.6	14.9
Zinc .....	8.9	12.8	14.4
Printed matter .....	7.6	8.5	13.3
Tools and utensils .....	19.2	8.8	12.6
Plastics .....	1.0	8.4	12.4
Other .....	454.4	346.7	467.2
<b>TOTAL</b> .....	<b>1 462.1</b>	<b>1 096.4</b>	<b>1 496.2</b>

## Chief imported commodities — 1960-66

### 2. Percentage distribution

ITEMS	VALUE (%)		
	1960	1965	1966
Wheat .....	9.8	12.4	11.4
Petroleum, crude .....	7.7	14.3	11.0
Vehicles and accessories .....	13.6	4.1	5.8
Chemicals, organic .....	2.5	5.4	5.3
Copper .....	1.5	2.4	4.5
Petroleum products .....	10.0	3.9	3.4
Industrial machinery, excluding textile equipment .....	5.0	2.6	3.1
Professional and scientific equipment .....	1.3	2.1	2.3
Motive machines .....	2.4	2.6	2.2
Coal and coke .....	1.3	2.1	2.1
Other .....	44.9	48.1	48.9
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Main import markets — 1960-66

### 1. Absolute figures

COUNTRIES	VALUE (US\$ 1 000 000)			QUANTITY (1 000 m.t.)
	1960	1965	1966	
United States .....	443	325	590	4 270
Western Germany ....	136	96	135	349
Argentina .....	95	132	117	1 208
Venezuela .....	114	82	71	3 637
Japan .....	38	37	44	123
United Kingdom .....	51	30	44	74
France .....	69	33	41	83
Italy .....	38	26	37	65
USSR .....	18	35	37	2 306
Sweden .....	34	19	31	48
Saudi Arabia .....	21	10	29	1 967
Iraq .....	—	27	26	1 952
Switzerland .....	16	17	26	6
Netherlands .....	35	19	25	64
Belgium-Luxembourg .	16	13	20	81

## Main import markets — 1960-66

### 2. Percentage distribution

COUNTRIES	VALUE (%)		
	1960	1965	1966
United States .....	30.3	29.7	39.4
Western Germany .....	9.3	8.8	9.0
Argentina .....	6.5	12.0	7.8
Venezuela .....	7.8	7.5	4.8
Japan .....	2.6	3.4	2.9
United Kingdom .....	3.5	2.7	2.9
Other .....	40.0	35.9	33.2
<b>TOTAL</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# Imports, by economic areas — 1965

ECONOMIC AREAS	IMPORTS	
	Value (US\$ 1 000 000)	%
America (excluding Latin America) .....	354.6	32.3
Latin America .....	273.3	25.0
Latin American Free Trade Association (LAFTA) .....	190.4	17.4
Other countries .....	82.9	7.6
Eastern Europe .....	70.8	6.4
Western Europe .....	295.7	26.9
European Economic Community (Common Market) .....	186.6	17.0
European Free Trade Association (EFTA)	92.5	8.4
Other countries .....	16.6	1.5
Asia (excluding Middle East) .....	42.8	3.9
Middle East .....	54.4	5.0
Africa (excluding Middle East) .....	4.0	0.4
Oceania .....	0.8	0.1
TOTAL .....	1 096.4	100.0

## Main ports of importation — 1966

PORTS	QUANTITY (1 000 m.t.)	VALUE (US\$ 1 000 000)	PERCENTAGE	
			Quantity	Value
Santos .....	8 609	757.4	44.4	50.6
Rio de Janeiro .....	8 021	462.1	41.4	30.9
Pôrto Alegre .....	185	40.0	1.0	2.7
Recife .....	292	37.9	1.5	2.5
Salvador .....	204	33.7	1.0	2.2
Belém .....	115	18.8	0.6	1.3
Other .....	1 966	146.3	10.1	9.8
<b>TOTAL .....</b>	<b>19 392</b>	<b>1 496.2</b>	<b>100.0</b>	<b>100.0</b>

## Average prices of coffee, cocoa and cotton at the New York market — 1955-66

YEARS	AVERAGE PRICES (US cents/lb)		
	Coffee (Santos No. 4)	Cocoa (Bahia)	Cotton (Middling upland)
1955 .....	57.00	35.96	34.59
1960 .....	36.69	26.67	33.16
1962 .....	34.40	21.34	35.44
1964 .....	47.52	23.16	34.22
1965 .....	44.42	16.92	32.29
1966 .....	40.83	22.95	28.31

## Average prices of selected export commodities — 1960-66

ITEMS	AVERAGE PRICES (US\$ per metric ton)			
	1960	1962	1964	1966
Brazil nuts .....	541.3	430.3	430.9	497.4
Carnauba wax .....	1 604.9	1 051.2	923.8	716.5
Castor oil .....	232.1	243.7	220.1	235.0
Cocoa .....	551.4	437.8	466.0	450.9
Coffee .....	706.3	654.0	847.1	756.5
Cotton .....	477.8	519.5	498.8	470.6
Iron ore .....	10.2	9.1	8.3	7.8
Manganese ore .....	34.4	36.2	24.7	28.0
Pinewood .....	75.9	76.4	75.5	78.4
Sisal (agave) .....	211.1	185.7	288.5	157.6
Sugar .....	75.0	88.7	131.0	80.2
Tobacco .....	592.5	570.4	473.5	479.7

## Freight of imported goods — 1965

COUNTRIES	VALUE (US\$ 1 000 000)			% OF FREIGHT OVER THE TOTAL VALUE
	Total (c.i.f.)	Cost of goods (f.o.b.)	Freight	
Argentina .....	132.0	111.0	21.0	15.9
Chile .....	27.0	24.4	2.6	9.6
France .....	33.3	29.8	3.5	10.5
Iraq .....	27.2	19.7	7.5	27.6
Japan .....	36.7	32.1	4.6	12.5
Kuwait .....	15.5	11.4	4.1	26.5
Saudi Arabia .....	10.4	8.3	2.1	20.2
United Kingdom .....	30.4	27.7	2.7	8.9
United States .....	325.3	281.6	43.7	13.4
USSR .....	35.0	26.6	8.4	24.0
Venezuela .....	82.1	63.6	18.5	22.5
Western Germany .....	96.3	86.3	10.0	10.4
Other .....	245.2	218.1	27.1	11.1
<b>TOTAL .....</b>	<b>1 096.4</b>	<b>940.6</b>	<b>155.8</b>	<b>14.2</b>

## DOMESTIC WATERBORNE TRADE

### Exports — 1955-65

YEARS	QUANTITY (1 000 m.t.)	INDEX NUMBERS (1955=100)
1955 .....	5 404	100
1960 .....	7 650	142
1963 .....	8 873	164
1965 .....	9 232	171



## INTERNAL TRADE

### Number of establishments — 1960

ITEMS	NUMBER OF ESTABLISHMENTS (thousands)
Retail trade .....	325.2
Foodstuffs, beverages and tobacco .....	205.6
Textiles, footwear and wearing apparel .....	47.5
Chemicals and drugs .....	15.0
Fuel and lubricants .....	7.1
Furniture and home appliances .....	7.0
Hardware and construction material .....	6.0
Vehicles and accessories .....	5.1
General merchandise .....	16.7
Other .....	15.2
Wholesale trade .....	18.3
Mixed trade .....	18.0

### Geographical distribution of retail establishments — 1960

STATES	NUMBER OF ESTABLISHMENTS (thousands)	%
São Paulo .....	69.4	21.4
Minas Gerais .....	40.0	12.3
Bahia .....	29.4	9.0
Rio Grande do Sul .....	26.6	8.2
Pernambuco .....	20.9	6.4
Rio de Janeiro .....	18.4	5.7
Guanabara .....	16.9	5.2
Other .....	103.6	31.8
<b>BRAZIL</b> .....	<b>325.2</b>	<b>100.0</b>

# BANKING AND FINANCE

## Banking establishments

### 1. Number — 1955-66

ITEMS	NUMBER OF ESTABLISHMENTS (Dec. 31)			
	1955	1960	1963	1966
TOTAL ....	3 560	5 348	6 481	7 567
By nationality				
Domestic banks ..	3 525	5 307	6 437	7 522
Foreign banks ....	35	41	44	45
By category				
Head offices .....	366	338	326	297
Branches and offices .....	3 194	5 010	6 155	7 270

## Banking establishments

### 2. Summary — 1966

ITEMS	VALUE (NCr\$ 1 000 000) (1)		
	Total	Domestic banks	Foreign banks
Capital .....	621	587	34
Cash on hand .....	497	493	4
Loans .....	11 608	11 428	180
Deposits .....	14 403	14 127	276

(1) End-of-year balances.

### 3. Deposits — 1966

ITEMS	DEPOSITS (end-of-year balances)	
	Value (NCr\$ 1 000 000)	%
Demand and short-term deposits .....	13 665	94.9
Government and official agencies .....	6 265	43.5
Current accounts, unlimited .....	3 480	24.2
Current accounts, popular .....	2 564	17.8
Other .....	1 356	9.4
Time deposits .....	738	5.1
Government and official agencies .....	52	0.4
Fixed term .....	95	0.6
Other .....	591	4.1
<b>TOTAL</b> .....	<b>14 403</b>	<b>100.0</b>

## Banking establishments

### 4. Loans — 1966

ITEMS	LOANS (end-of-year balances)	
	Value (NCr\$ 1 000 000)	%
Current account loans .....	6 061	52.2
Government and official agencies .....	3 998	34.5
Commerce .....	193	1.7
Industrial activities .....	504	4.3
Agriculture .....	980	8.4
Other .....	386	3.3
Mortgage loans .....	62	0.5
Bills discounted .....	5 485	47.3
Government and official agencies .....	63	0.5
Commerce .....	1 533	13.2
Industrial activities .....	2 506	21.6
Agriculture .....	670	5.8
Other .....	713	6.2
TOTAL .....	11 608	100.0

**Number of banking establishments  
in major cities — 1965**

CITIES	STATES	BANKING ESTABLISHMENTS (number)
São Paulo .....	São Paulo	851
Rio de Janeiro .....	Guanabara	712
Belo Horizonte .....	Minas Gerais	110
Pôrto Alegre .....	Rio Grande do Sul	110
Salvador .....	Bahia	96
Recife .....	Pernambuco	84
Santos .....	São Paulo	81
Curitiba .....	Paraná	70
Brasília .....	Federal District	48
Campinas .....	São Paulo	42
Niterói .....	Rio de Janeiro	37
Goiânia .....	Goiás	31
Santo André .....	São Paulo	31
Belém .....	Pará	30

# Cleared cheques — 1964-66

STATES	NUMBER (millions)			VALUE (NC\$ 1 000 000)
	1964	1965	1966	
São Paulo .....	59.1	68.2	81.1	61 700
Guanabara .....	24.3	27.9	28.6	31 386
Minas Gerais .....	10.5	11.9	14.7	8 236
Paraná .....	6.7	8.2	10.4	5 312
Rio Grande do Sul ...	4.9	5.7	7.0	5 191
Pernambuco .....	3.6	3.5	4.3	3 439
Other .....	11.7	15.1	19.7	12 959
BRAZIL .....	120.8	140.5	165.8	128 223

## Investments of foreign capital

### 1. Summary — 1955-66

YEARS	INVESTMENTS (US\$ 1 000)	YEARS	INVESTMENTS (US\$ 1 000)
1955 .....	42 025	1961 .....	26 464
1956 .....	47 453	1962 .....	10 608
1957 .....	119 160	1963 .....	8 419
1958 .....	104 176	1964 .....	9 314
1959 .....	86 816	1965 .....	16 187
1960 .....	85 086	1966 .....	4 068

### 2. Countries of provenance — 1961-66

COUNTRIES	INVESTMENTS (US\$ 1 000) (1)	
	Period 1961-63	Period 1964-66
Canada .....	2 229	5
France .....	707	578
Italy .....	735	1 273
Japan .....	— 1 693	2 051
Netherlands .....	1 609	3 873
United Kingdom .....	3 363	48
United States .....	13 279	13 368
Sweden .....	— 116	1 286
Switzerland .....	4 708	161
Western Germany .....	13 517	8 016
Other .....	7 153	— 1 090
<b>TOTAL</b> .....	<b>45 491</b>	<b>29 569</b>

(1) Negative values correspond to authorized investments which were not applied.

## Investments of foreign capital

### 3. Fields of industry

ITEMS	INVESTMENTS (US\$ 1 000) (1)	
	Period 1961-63	Period 1964-66
Basic industries .....	38 665	19 492
Shipbuilding .....	1 722	2 050
Heavy machinery and electrical equipment .....	8 585	1 388
Chemicals .....	2 650	2 052
Iron and steel .....	2 446	236
Tractors and accessories .....	11 988	263
Motor vehicles and accessories .....	9 671	13 503
Other .....	1 603	—
Light industries .....	6 826	10 077
Machinery and electrical equipment .....	4 358	10 866
Chemicals and drugs .....	883	— 573
Textiles .....	84	214
Other .....	1 501	— 430
<b>TOTAL</b> .....	<b>45 491</b>	<b>29 569</b>

(1) Negative values refer to authorized capitals which were not applied.



## Emission of capitals — 1966

ITEMS	VALUE OF EMISSIONS (NCr\$ 1 000 000)	%	ITEMS	VALUE OF EMISSIONS (NCr\$ 1 000 000)	%
Banking and insurance .....	314	5.2	Paper .....	40	0.7
Commerce .....	275	4.6	Petroleum ....	340	5.7
Industry .....	3 164	52.5	Chemicals and drugs .....	279	4.6
Motor vehicles	116	1.9	Iron and steel	131	2.2
Cement .....	27	0.5	Textiles .....	242	4.0
Construction .	115	1.9	Other .....	997	16.5
Electric equip- ment .....	133	2.2	Public utilities and transporta- tion .....	1 927	32.0
Foodstuffs ...	397	6.6	Other .....	348	5.7
Metals (exclud- ing iron and steel) .....	249	4.1	<b>TOTAL ..</b>	<b>6 028</b>	<b>100.0</b>
Mining .....	98	1.6			

## Money in circulation — 1960-66

YEARS	MONEY (NCr\$ 1 000 000)		
	Emission during year	Redemption during year	Existence on Dec. 31
1960 .....	57	5	206
1961 .....	117	10	314
1962 .....	210	15	509
1963 .....	395	15	889
1964 .....	635	40	1 484
1965 .....	851	160	2 175
1966 .....	777	210	2 741

## Money supply — 1960-66

ITEMS	END-OF-YEAR VALUES (NCr\$ 1 000 000)		
	1960	1963	1966
Money in circulation (a) .....	206	889	2 741
Cash on hand (b) .....	37	205	398
Money with the public (c=a-b)	169	684	2 343
Demand deposits (d) .....	523	2 108	8 343
<b>TOTAL (c+d) .....</b>	<b>692</b>	<b>2 792</b>	<b>10 686</b>

## Gold reserves — 1960-66

YEARS	QUANTITY (kg of fine gold)	
	At the beginning of year	At end of year
1960 .....	290 257	255 195
1962 .....	253 200	244 784
1964 .....	253 608	81 001
1965 .....	81 001	55 795
1966 .....	55 795	40 174

## Average exchange rates — 1960-66

CURRENCIES	AVERAGE DAILY QUOTATIONS (NCr\$ per unit of foreign currency)		
	1960	1963	1966
United States (dollar) .....	0.190	0.578	2.218
United Kingdom (pound sterling) .....	0.542	1.563	6.195
Western Germany (mark) .....	0.046	0.142	0.556
Switzerland (swiss franc) .....	0.044	0.136	0.513
Sweden (krona) .....	0.037	0.114	0.430
Uruguay (peso) .....	0.017	0.051	0.035

## Rio de Janeiro Stock Exchange — 1955-66

YEARS	VALUE OF TRANSACTIONS (NCr\$ 1 000 000)			PERCENTAGE	
	Total	Public bonds	Private bonds	Public bonds	Private bonds
1955 .....	1.4	0.5	0.9	35.7	64.3
1960 .....	5.2	1.3	3.9	25.0	75.0
1963 .....	84.3	3.3	81.0	3.9	96.1
1964 .....	134.4	4.0	130.4	3.0	97.0
1965 .....	370.9	30.0	340.9	8.1	91.9
1966 .....	355.7	21.9	333.8	6.2	93.8

# Balance of payments — 1964-66

ITEMS	VALUE (US\$ 1 000 000)		
	1964	1965	1966 (1)
Current transactions .....	102	263	42
Trade balance .....	344	655	460
Exports (f.o.b.) .....	1 430	1 596	1 730
Imports (f.o.b.) .....	— 1 086	— 941	— 1 270
Services .....	— 305	— 457	— 468
Receipts .....	128	146	150
Payments .....	— 433	— 603	— 618
Donations (net) .....	63	65	50
Capital movement .....	58	67	— 110
Inflow .....	312	411	552
Investments .....	28	70	170
Loans and credits .....	226	257	382
Reinvestments .....	58	84	...
Outflow .....	— 278	— 344	— 370
Amortization of compensatory loans .....	— 91	— 84	— 115
Other loans amortization ....	— 187	— 205	— 255
Other (net) .....	24	— 55	— 72
Errors and omissions ..	— 120	32	—
Surplus (+) or deficit (—) .....	40	362	152
Compensatory .....	— 40	— 362	— 152

(1) Preliminary data.



The Ministry of Foreign Affairs (Brasília)

## NATIONAL ACCOUNTS

In recent years, the annual rates of increase of the Brazilian gross domestic product have fluctuated between a minimum of 1.9% and 1.6%, registered respectively in 1956 and 1963, and a maximum of 7.5%, reached in 1959 and 1961. Estimates based on market prices for 1949 point out that the actual increase of the gross domestic product in Brazil followed a sustained and more rapid pace in the period between 1957 and 1961, when the proportional averages have always been above 6%. The year 1962 (5.4%) saw the beginning of a downward trend, which attained its lowest point in 1963 (1.6%), recuperating slowly there onwards.

For the sake of comparison, if we take estimates based on factor cost, Brazilian averages may be seen to have sustained a higher position than that of Latin America as a whole. Thus, while in the periods 1955-60 and 1960-65 the average increase was 5.9% and 4.9% for Brazil, that of Latin America did not overcome 4.6% and 4.7%. The increase registered in 1964-65 shows a still more sensible difference: 7.3% for Brazil and 6.2% for Latin America.

Another positive aspect that may be induced from the estimates of Brazilian national accounts is the growing participation of industry in the Brazilian economy as a whole. Data related to the gross domestic product, as available up to 1966, show that between this past year and 1960 the product derived from industry increased to 34.4%, over that from agriculture (29.5%) and services (25.8%).

Data related to national income, as available for the years 1940, 1950, and 1960, show that, in the distribution by economic sectors, while industry contributed less than one fifth (18.9%) of the total some twenty years ago, now its participation increased to nearly one third (31.7%) of the total at the end of the period.

However, since the process of industrial development is irregular, considerable differences appear in its geographical distribution. On one hand, as there is concentrated more than two thirds of national income (71.1%) in five Brazilian states — São Paulo (32.2%), Guanabara (13.5%), Minas Gerais (9.7%), Rio Grande do Sul (9.1%) and Paraná (6.6%) — the remaining third is distributed among the other sixteen states, among which three show proportions of less than 1%: Piauí (0.5%), Sergipe (0.6%) and Alagoas (0.9%), all located in Northeast Brazil.

## Index numbers and annual increase of gross domestic product — 1955-66

YEARS	GROSS DOMESTIC PRODUCT (1)		YEARS	GROSS DOMESTIC PRODUCT (1)	
	Index numbers (1949=100)	Annual increase (%)		Index numbers (1949=100)	Annual increase (%)
1955 .....	138.4	6.8	1961 .....	197.4	7.3
1956 .....	141.0	1.9	1962 .....	208.0	5.4
1957 .....	150.7	6.9	1963 .....	211.3	1.6
1958 .....	160.7	6.6	1964 .....	217.9	3.1
1959 .....	172.5	7.3	1965 .....	226.3	3.9
1960 .....	184.0	6.7	1966 .....	236.3	4.4

(1) At market prices of 1949.

## Industrial origin of gross domestic product — 1963-66

SECTORS	INDEX NUMBERS (1960=100)	
	1963	1966
Agriculture .....	114.6	129.5
Industry .....	120.1	134.4
Services .....	113.9	125.8
<b>TOTAL</b> .....	<b>114.8</b>	<b>128.4</b>



# Percentage distribution of income, by sectors — 1940-60

SECTORS	INCOME (%)		
	1940	1950	1960
Agriculture .....	29.8	25.8	22.7
Industry .....	18.9	23.4	31.7
Other sectors .....	51.3	50.8	45.6
<b>TOTAL .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Geographical distribution of income

STATES	INCOME (1)		STATES	INCOME (1)	
	Value (%)	Per capita (index numbers) (2)		Value (%)	Per capita (index numbers) (2)
Amazonas .....	0.9	92	Minas Gerais ....	9.7	70
Pará .....	1.3	58	Espírito Santo ..	1.1	64
Maranhão .....	1.2	34	Rio de Janeiro ..	4.5	94
Piauí .....	0.5	29	Guanabara .....	13.5	289
Ceará .....	2.1	45	São Paulo .....	32.2	176
Rio G. do Norte .	0.9	56	Paraná .....	6.6	110
Paraíba .....	1.5	53	Santa Catarina ..	2.7	89
Pernambuco ....	3.5	60	Rio G. do Sul ..	9.1	119
Alagoas .....	0.9	50	Mato Grosso ....	1.0	77
Sergipe .....	0.6	54	Goiás .....	1.5	54
Bahia .....	4.7	55	<b>BRAZIL .....</b>	<b>100.0</b>	<b>100</b>

(1) Percentages based on data for 1960. — (2) National average = 100.

## National income and national product — 1964

ITEMS	VALUE (NCr\$ 1 000 000)
National income .....	14 966.1
Plus indirect taxes .....	3 204.3
Less subsidies .....	387.6
Net national product .....	17 782.2
Plus fixed capital depreciation .....	943.4
Gross national product .....	18 726.2
Less direct and indirect taxes .....	4 389.3
Less other government current receipts .....	66.6
Plus transfer payments and subsidies .....	1 456.2
Private sector income .....	15 726.5
Government income .....	2 999.7
Indirect taxes less subsidies .....	2 816.7
Direct taxes less transfer payments .....	116.4
Other government current receipts .....	66.6

## Expenditure on gross national product — 1964

ITEMS	VALUE (NCr\$ 1 000 000)
Private consumption expenditure (1) .....	12 615.3
Government consumption expenditure .....	2 909.2
Gross fixed capital formation	
Government .....	903.6
Private enterprises .....	1 792.9
Increase in stocks .....	410.0
Consumption expenditure and gross capital formation .....	18 631.0
Exports of goods and services .....	1 709.1
Gross domestic expenditure and imports .....	20 340.1
Less imports of goods and services .....	1 472.8
Expenditure on gross domestic product .....	18 867.3
Less net factor income from abroad .....	141.1
Expenditure on gross national product .....	18 726.2

(1) Obtained as a residual.

**Rates of growth of gross domestic product  
in Latin America — 1955-65**

COUNTRIES	RATES OF GROWTH (1)		
	Period 1955-60	Period 1960-65	Period 1964-65
Argentina .....	2.7	2.8	7.8
BRAZIL .....	5.9	4.9	7.3
Chile .....	4.3	3.5	4.2
Colombia .....	3.9	4.5	3.9
Mexico .....	6.1	5.9	5.2
Peru .....	4.7	6.3	6.0
Venezuela .....	6.7	5.4	7.0
LATIN AMERICA .....	4.6	4.7	6.2

(1) Annual average, calculated on gross domestic product at factor cost.

# PUBLIC FINANCE

## Federal revenue and expenditure — 1960-66

YEARS	VALUE (NCr\$ 1 000 000)		EXPENDITURE/ REVENUE RATIO (revenue=100)
	Revenue	Expenditure	
1960 .....	233	265	114
1962 .....	512	727	142
1964 .....	2 011	2 771	138
1965 .....	3 594	4 415	123
1966 .....	6 007	6 139	102
1967 (1) .....	6 684	6 943	104

(1) Budget data.

## Federal revenue — 1966

ITEMS	FEDERAL REVENUE	
	Value (NCr\$ 1 000 000)	%
Tax revenue .....	4 763	79.3
Excise tax .....	2 215	36.9
Income tax .....	1 339	22.3
Customs duties .....	416	6.9
Stamp tax .....	539	9.0
Duties on electric energy .....	194	3.2
Other taxes .....	60	1.0
Other receipts .....	1 244	20.7
<b>TOTAL</b> .....	<b>6 007</b>	<b>100.0</b>

## Geographical distribution of federal revenue — 1966

STATES	FEDERAL REVENUE	
	Value (NCr\$ 1 000 000)	%
São Paulo .....	2 480	41.3
Guanabara .....	1 011	16.9
Federal District .....	1 251	20.8
Rio Grande do Sul .....	300	5.0
Minas Gerais .....	260	4.3
Pernambuco .....	134	2.2
Rio de Janeiro .....	120	2.0
Paraná .....	108	1.8
Other .....	343	5.7
<b>TOTAL</b> .....	<b>6 007</b>	<b>100.0</b>

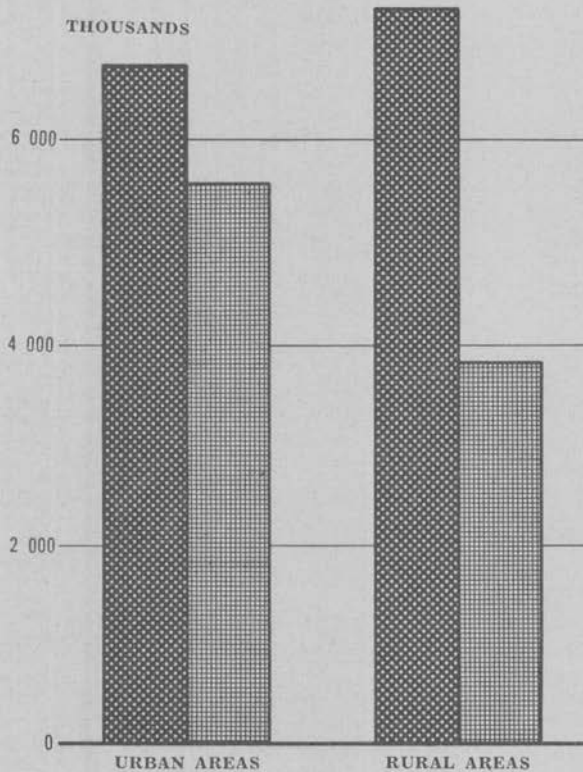
## State revenue — 1966

STATES	STATE REVENUE (1)	
	Value (NCr\$ 1 000 000)	%
São Paulo .....	1 997	41.8
Guanabara .....	595	12.4
Minas Gerais .....	590	12.3
Rio Grande do Sul .....	393	8.2
Rio de Janeiro .....	175	3.7
Paraná .....	166	3.5
Bahia .....	148	3.1
Other .....	719	15.0
<b>TOTAL</b> .....	<b>4 783</b>	<b>100.0</b>

(1) Budget data.

# SCHOOL-AGE POPULATION (7 — 14 years)

 TOTAL  ATTENDING SCHOOL



## EDUCATION AND CULTURE

There are more than 30 million literate Brazilians. This means that even though the rate of illiteracy is still high, although in steady decline from year to year, the actual number of persons in conditions of obtaining an access to cultural facilities is higher than that of a number of other countries which show a better rate of literacy.

About 10 million Brazilian children between 7 and 14 years of age attend schools of the first level. In the urban areas the rate of school attendance at that age group is 82%.

Between 1955 and 1965 the number of schools of the first level in Brazil increased from 77 thousand to 125 thousand. Brazil has today more than 350 thousand teachers, a figure seldom reached in other countries for this level of education.

The largest number of schools of the first level are located in the rural areas (89 thousand or 71.5%), a fact that shows how basic education has penetrated in the less populated and less developed areas of the country.

In Brazil education of the first level is free for everyone. Different levels of the public administration operate the schools and pay the teachers' salaries. Every child has a right to a "school lunch", which is given to them daily free of charge by the Government.



Private schools of the first level also operate in the country; they number about 10 thousand, and have a total enrollment of one million students. Nine million children attend schools of the first level free of charge.

The complete first level of education runs for 6 years, but it may be made in five years.

More than 2 million Brazilians attend schools of the second level at the 9,200 units of this level existing in the country. During the last decade the number of students enrolled at this level of education increased threefold.

Half the students of the second level attend school free of charge at Government operated establishments. Private schools also operate at this level of education: they numbered 6,000 units, with an enrollment of one million students; the Government also provides for scholarships in private schools.

Education of the second level runs for two stages: high school 4 years, and junior college 3 years.

Higher education in Brazil is practically free of charge in official establishments and may be attended by anyone, regardless of nationality and social condition. No discrimination whatever exists at the universities.

Today more than 155 thousand students attend Brazilian universities and the number of available courses is over 1,200.

At some universities the Government provides students with free board and room. Others operate low cost restaurants.

As to the choice of careers, Brazilians prefer the Humanities, Law, Engineering and Medicine. The last few years saw a rush towards Administration and Economics: the economist is today the most sought after professional both by public and private organizations in Brazil.

There are more than two thousand public libraries in Brazil. The total number of libraries of all categories — including those belonging to official and private organizations, schools and universities — is over 15,000.

The National Library of Rio de Janeiro is considered one of the largest in the Americas; it contains more than two million volumes, as well as special collections of manuscripts, rare works, musical works and engravings.

In recent years, Brazilian book production showed a remarkable increase, especially in school manuals, textbooks and technical works.

A fair number of newspapers and magazines are edited in Brazil. The average circulation of daily newspapers is about 2.6 million copies, and that of magazines and other periodicals 20.5 million copies.

About 295 million persons go to the cinema and 1.6 million to the theatre each year in Brazil. The 944 radio and 32 television broadcasting stations have an increasing penetration in Brazilian homes, and a number of TV set manufacturers work full time to meet demand.

## Literacy — 1940-60

YEARS	POPULATION 10 YEARS OF AGE AND OVER		
	Total (thousands)	Literate (thousands)	Literacy rate (%)
1940 .....	29 038	12 498	43.0
1950 .....	36 558	17 676	48.4
1960 .....	48 761	29 563	60.6

## School attendance — 1964

AREAS	POPULATION 7 TO 14 YEARS OF AGE		
	Total (thousands)	Attending school (thousands)	% of school attendance
Urban areas .....	6 738	5 535	82.1
Rural areas .....	7 197	3 704	51.5
<b>TOTAL</b> .....	<b>13 935</b>	<b>9 239</b>	<b>66.3</b>

## PRIMARY EDUCATION

### 1. Schools, teaching staff and students enrolled — 1955-65

#### a) Number

YEARS	NUMBER OF SCHOOLS	TEACHING STAFF (thousands)	STUDENTS ENROLLED (thousands)
1955 .....	76 973	158	4 778
1960 .....	95 938	226	6 404
1962 .....	105 525	273	7 358
1964 .....	124 946	337	8 909
1965 .....	124 526	351	9 923

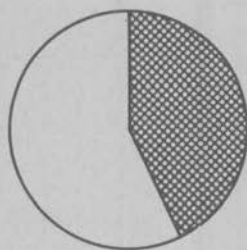
#### b) Index numbers

YEARS	INDEX NUMBERS (1955=100)	
	Number of schools	Students enrolled
1960 .....	125	134
1962 .....	137	154
1964 .....	162	186
1965 .....	162	208

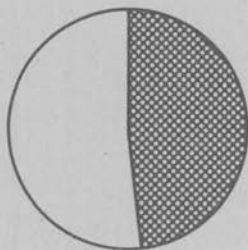
## LITERACY



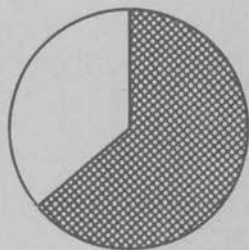
LITERATE



1940



1950



1960

## 2. Location of schools — 1965

LOCATION	NUMBER		PERCENTAGE	
	Schools	Students enrolled (thousands)	Schools	Students enrolled
Urban areas .....	35 494	6 204	28.5	62.5
Rural areas .....	89 032	3 719	71.5	37.5
<b>TOTAL</b> .....	<b>124 526</b>	<b>9 923</b>	<b>100.0</b>	<b>100.0</b>

## 3. Administration of schools — 1965

ITEMS	NUMBER		PERCENTAGE	
	Schools	Students enrolled (thousands)	Schools	Students enrolled
Public schools .....	114 856	8 827	92.2	89.0
Federal .....	793	60	0.6	0.6
State .....	53 405	6 334	42.9	63.9
County .....	60 658	2 433	48.7	24.5
Private schools .....	9 670	1 096	7.8	11.0
<b>TOTAL</b> .....	<b>124 526</b>	<b>9 923</b>	<b>100.0</b>	<b>100.0</b>

## SECOND LEVEL EDUCATION

### 1. Courses, teaching staff and students enrolled — 1955-65

#### a) Number

YEARS	NUMBER OF COURSES	TEACHING STAFF (thousands)	STUDENTS ENROLLED (thousands)
1955 .....	5 107	69	733
1960 .....	7 054	99	1 111
1962 .....	7 639	107	1 377
1964 .....	8 592	132	1 819
1965 .....	9 196	...	2 154

#### b) Index numbers

YEARS	INDEX NUMBERS (1955=100)	
	Number of courses	Students enrolled
1960 .....	138	152
1962 .....	150	188
1964 .....	168	248
1965 .....	180	294

## 2. Administration of schools — 1965

ITEMS	NUMBER		PERCENTAGE	
	Courses	Students enrolled (thousands)	Courses	Students enrolled
Public schools .....	3 266	1 033	35.5	48.0
Federal .....	227	58	2.5	2.7
State .....	2 615	900	28.4	41.8
County .....	424	75	4.6	3.5
Private schools .....	5 930	1 121	64.5	52.0
TOTAL .....	9 196	2 154	100.0	100.0

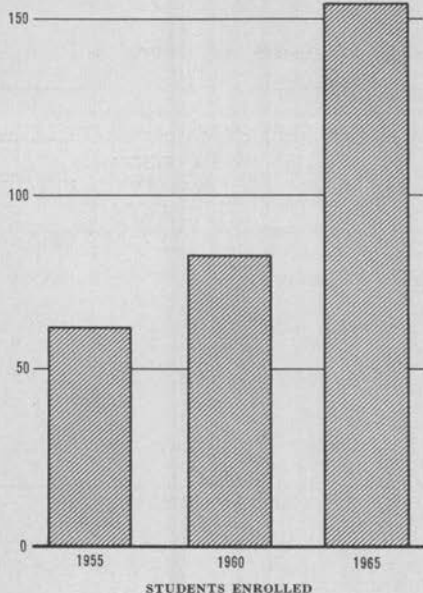
## 3. Type of education — 1965

TYPE OF EDUCATION	NUMBER OF COURSES	STUDENTS ENROLLED	
		Number (thousands)	%
Secondary (general) .....	5 095	1 554	72.1
Commercial .....	1 829	288	13.4
Industrial .....	356	79	3.7
Agricultural .....	105	13	0.6
Teacher-training .....	1 811	220	10.2
TOTAL .....	9 196	2 154	100.0



# HIGHER EDUCATION

THOUSANDS



## HIGHER EDUCATION

### 1. Courses, teaching staff and students enrolled — 1955-65

#### a) Number

YEARS	NUMBER OF COURSES	TEACHING STAFF (thousands)	STUDENTS ENROLLED (thousands)
1955 .....	845	14.6	69.9
1960 .....	1 115	21.1	93.2
1965 .....	1 224	(1) 30.1	155.8

(1) 1964.

# 1. Courses, teaching staff and students enrolled — 1955/65

## b) Index numbers

YEARS	INDEX NUMBERS (1955=100)	
	Number of courses	Students enrolled
1960 .....	132	133
1965 .....	145	223

## 2. Enrolment, by field of study — 1955-65

FIELD OF STUDY	STUDENTS ENROLLED (thousands)			INDEX NUMBERS (1955=100)	
	1955	1960	1965	1960	1965
Humanities .....	12.9	20.7	36.3	160	281
Law .....	19.9	23.8	33.6	120	169
Engineering .....	7.9	11.2	22.0	142	278
Administration and Eco- nomics .....	5.2	8.9	19.8	171	381
Medicine .....	10.0	10.5	15.6	105	156
Dentistry .....	4.9	5.5	6.0	112	122
Agriculture .....	1.3	1.9	4.4	146	338
Social Service .....	1.0	1.3	3.1	130	310
Architecture .....	1.7	1.6	2.6	94	153
Other .....	5.1	7.8	12.4	153	243
<b>TOTAL</b> .....	<b>69.9</b>	<b>93.2</b>	<b>155.8</b>	<b>133</b>	<b>223</b>

### 3. Courses, enrolment and graduations, by field of study — 1965

FIELD OF STUDY	NUMBER OF COURSES	STUDENTS ENROLLED		GRADUATES IN 1964 (thousands)
		Number (thousands)	%	
Humanities .....	498	36.3	23.3	5.1
Law .....	62	33.6	21.5	4.2
Engineering .....	124	22.0	14.1	2.3
Administration and Economics .....	138	19.8	12.7	2.4
Medicine .....	38	15.6	10.0	1.6
Dentistry .....	40	6.0	3.9	1.2
Agriculture .....	18	4.4	2.8	0.5
Social Service .....	35	3.1	2.0	0.5
Architecture .....	9	2.6	1.7	0.3
Other .....	262	12.4	8.0	2.2
<b>TOTAL .....</b>	<b>1 224</b>	<b>155.8</b>	<b>100.0</b>	<b>20.3</b>

A Prophet, sculpture in soapstone by  
Aleijadinho (Congonhas do Campo, State  
of Minas Gerais)



#### 4. Students enrolled at major universities — 1965

UNIVERSITIES	STUDENTS ENROLLED (thousands)
University of São Paulo .....	11.9
Federal University of Rio de Janeiro .....	11.0
Federal University of Minas Gerais .....	6.4
Federal University of Rio Grande do Sul .....	6.2
Federal University of Paraná .....	5.4
Federal University of the State of Rio de Janeiro .....	4.7
Federal University of Pernambuco .....	4.2
Federal University of Bahia .....	4.1
University of the State of Guanabara .....	4.0
Mackenzie University .....	3.8
Federal University of Ceará .....	3.4
Catholic University of Rio Grande do Sul .....	2.8

## Libraries, book production and periodicals — 1964

ITEMS	DATA
<b>Libraries</b>	
Number .....	2 139
Volumes (thousands) .....	16 726
<b>Books and pamphlets published</b>	
Titles (number) .....	4 972
Copies (thousands) .....	69 087
<b>Periodicals</b>	
<b>Daily newspapers</b>	
Number .....	227
Average circulation (thousands) .....	2 606
<b>Other periodicals</b>	
Number .....	1 536
Average circulation (thousands) .....	20 462

## Cinema, theatre, radio and television — 1964

ITEMS	DATA
<b>Cinemas</b>	
Number .....	3 234
Seating capacity (thousands) .....	1 909
Annual attendance (thousands) .....	295 477
<b>Theatres</b>	
Number .....	74
Seating capacity (thousands) .....	42
Annual attendance (thousands) .....	1 606
Radio broadcasting (stations) .....	944
Television (stations) .....	32

## SOCIAL STATISTICS

### Hospitals — 1964

ITEMS	HOSPITALS (number)
TOTAL .....	2 847
By ownership	
Government .....	457
Private .....	2 390
By type	
General hospitals .....	2 225
Specialized hospitals .....	600
Medical-training hospitals .....	22



# Geographical distribution of hospitals — 1964

## 1. Number

REGIONS	HOSPITALS (number)	BEDS	
		Number	Beds per 10 000 inhabitants
North .....	69	7 430	25.1
North-East .....	356	23 372	13.7
East .....	893	88 390	32.1
South .....	1 361	102 654	35.7
Central-West .....	168	6 653	17.9
<b>BRAZIL</b> .....	<b>2 847</b>	<b>228 499</b>	<b>28.6</b>

## 2. Percentage distribution

REGIONS	HOSPITALS	BEDS
	Percentages	
North .....	2.4	3.3
North-East .....	12.5	10.2
East .....	31.4	38.7
South .....	47.8	44.9
Central-West .....	5.9	2.9
<b>BRAZIL</b> .....	<b>100.0</b>	<b>100.0</b>

# Physicians — 1964

## 1. Summary

ITEMS	DATA
Number of physicians .....	34 250
Inhabitants per physician .....	2 331
Number of cities (%)	
With physicians .....	45.2
Without physicians .....	48.5
Unknown .....	6.3

## 2. Geographical distribution

REGIONS	PHYSICIANS (number)	INHABITANTS PER PHYSICIAN
North .....	595	4 970
North-East .....	2 979	5 726
East .....	16 195	1 698
South .....	13 416	2 142
Central-West .....	1 065	3 484
<b>BRAZIL</b> .....	34 250	2 331

## Water supply and sewerage — 1965

ITEMS	DATA
Number of cities .....	3 957
Cities with water supply system	
Number .....	1 778
Percentage .....	44.9
Cities with sewer system	
Number .....	1 245
Percentage .....	31.5

## Households — 1960

ITEMS	HOUSEHOLDS
Number of households (thousands) .....	13 475
With piped water (thousands) .....	2 834
Percentage .....	21.0
With toilet (thousands) .....	6 862
Percentage .....	50.9
With electric installations (thousands) .....	5 210
Percentage .....	38.7
With radio sets (thousands) .....	4 767
Percentage .....	35.4
With refrigerator (thousands) .....	1 531
Percentage .....	11.4

## APPENDIX

### Conversion coefficients and factors

#### Equivalents of metric, Imperial British and United States units of measure

METRIC UNITS	EQUIVALENTS
<b>LENGTH</b>	
1 metre (m) .....	3.280840 feet 1.093613 yard
1 kilometre (km) .....	0.6213712 mile 0.5399568 int. naut. mile
<b>AREA</b>	
1 square metre (m <sup>2</sup> ) .....	10.76391 square feet 1.195990 square yard
1 hectare (ha) .....	2.471054 acres
1 square kilometre (km <sup>2</sup> ) .....	0.3861022 square mile
<b>CAPACITY</b>	
1 litre (l) .....	0.8798766 Imp. quart 1.056688 U.S. liq. quart 0.908083 U.S. dry quart
<b>WEIGHT</b>	
1 ton (m.t.) .....	1.102311 short tons 0.9842065 long tons
<b>RAILWAY TRANSPORT</b>	
1 passenger-km .....	0.621371 passenger-mile
1 ton-km .....	0.684945 short ton-mile 0.611558 long ton-mile
<b>ELECTRIC ENERGY</b>	
1 kilowatt (kW) .....	1.34102 British horsepower (hp) 1.35962 cheval vapeur or metric horsepower (cv)



