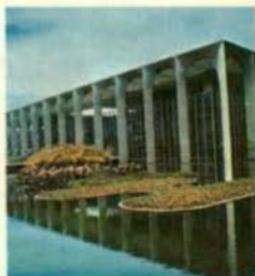
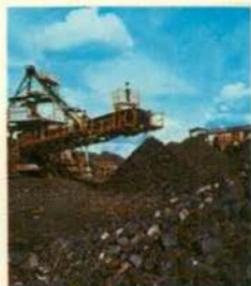
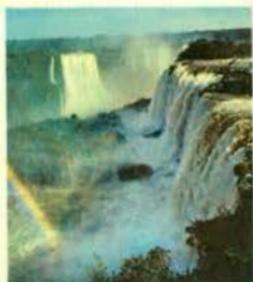


SINOPSE ESTATÍSTICA DO BRASIL

(ENGLISH EDITION)



1972

MINISTÉRIO DO PLANEJAMENTO E COORDENAÇÃO GERAL
FUNDAÇÃO IBGE - INSTITUTO BRASILEIRO DE ESTATÍSTICA

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FUNDAÇÃO IBGE
INSTITUTO BRASILEIRO DE ESTATÍSTICA

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FUNDAÇÃO IBGE

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FOREWORD

The Fundação IBGE, through the Departamento de Divulgação Estatística (DEDIVE) of the Instituto Brasileiro de Estatística, presents another volume of its annual series "Sinopse Estatística do Brasil", formerly entitled "Atualidade Estatística do Brasil".

The present issue contains the most recent statistical figures available, in a condensed form and selected from the tables published by the ANUÁRIO ESTATÍSTICO DO BRASIL — 1972. Also some preliminary data from the Censuses of Population and Agriculture are published in this volume. Besides the statistical tables, the Sinopse presents graphs and photographs, and brief commentaries on the principal aspects of the economic and social conditions prevalent in the country in the last years.

Rio de Janeiro, April, 1973

Photographs:

MANCHETE
EDITORIA ABRIL
DNER
CHESF
CESP
EMBRAER
SUDENE

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SYMBOLS

... Data not available.

— None or not applicable.

0-0,0 Magnitude less than half the unit employed.

PHYSICAL CHARACTERISTICS

PHYSICAL AND POLITICAL FEATURES

Brazil covers an area of 8,511,965 km² (3,286,470 square miles), extending to about 47% of the South American continent. With this enormous land area, it ranks fifth in size, among the countries of the world, immediately after the Soviet Union, Canada, China and the United States.

For the most part it is situated between the Equator and the Tropic of Capricorn or, more precisely, between parallels 5°16'19" N and 33°45'09" S, and meridians 34°45'54" and 73°59'32" WGr.

Bathed by the Southern Atlantic on the northeast, east and southeast, the Brazilian coastline stretches for 7,408 km. It has common frontiers with nearly all the South American countries except Chile and Ecuador. The Bolivian border is the longest, while those of Surinam and French Guiana are the shortest.

The territory of Brazil is made up largely of not very high uplands; the topmost point of the Brazilian relief is Neblina Peak, 3,014 m in altitude, in the extreme north of the country. The river network is far-reaching, and the great rivers like the Amazon, Paraná, São Francisco, Tocantins, Araguaia and many another provide the country with one of the greatest hydraulic potentials in the world.

Brazil is divided into five major regions and subdivided into 27 political units, 22 of which are States and 4 Federal Territories. Finally, in the Federal District, seat of government, there rises Brasília, the capital, inaugurated on April 21, 1960, an active irradiating center of development for the vast unpeopled spaces of the Central Plateau. The Northern Region accounts for 42.1% of the total area of the country, and therein are located the two states with the largest extent: Amazonas and Pará, 1,564 and 1,248 million square kilometers respectively. Apart from these two states, only Mato Grosso, in the West Central Region, has an area of more than one million square kilometers. The Northeastern Region, comprising ten political units, three of them with more than 250,000 square kilometers and less than 565,000, covers 18.2% of the total area of the country. The Southeastern Region extends over five states and 10.9% of the total area, Minas Gerais having the lion's share with 6.9% of that area. Only three political units go to make up the Southern Region, the smallest of all with a mere 6.8% of the total area, Rio Grande do Sul covering half the region with 3.3%.

Five main climatic zones are characteristic of the country: the hot, soaking climate of the Amazonian Rainforest or Hyleia, where the temperature averages 24-26°C all the year round and the rainfall ranges from 1,700 to 3,000 mm; the damp heat of the Tropical Forest, with rainfall of 1,000 to 1,700 mm; the hot, semihumid stretches of Cerrado, transitional between forest and savanna, with a pluviometric range of 1,500 to 2,000 mm; the hot, dry zone of the Caatinga, or scrub forest, where yearly precipitation is as low as 750 to 1,000 mm.; and the mesothermic, humid belt of the middle latitudes, with precipitation indices around 1,500 mm per annum and a thermic index oscillating between 20° and 14°, but absolute minima down to minus 8°C, from the seaboard to the uplands, and absolute maxima of more than 40°C in the low inland areas.

1.1 — PHYSICAL CHARACTERISTICS

1.1.1 — GEOGRAPHIC LOCATION

1.1.1.1 — Extreme points

STATES AND TERRITORIES	LATITUDE		LONGITUDE W.Gr.	
	Northernmost point	Southernmost point	Easternmost point	Westernmost point
Rondônia, Territory.....	7°55'30''S	13°41'30''S	59°50'45''	66°15'00''
Acre.....	7°07'08''S	11°08'45''S	66°37'45''	73°59'32''
Amazonas.....	2°08'30''N	9°49'00''S	56°04'50''	73°48'06''
Roraima, Territory.....	5°16'19''N	1°27'00''S	58°58'30''	64°39'30''
Pará.....	2°37'56''N	9°50'24''S	46°06'30''	59°22'45''
Amapá, Territory.....	4°20'45''N	1°13'30''S	49°54'45''	54°47'30''
Maranhão.....	1°01'00''S	10°21'07''S	41°48'30''	48°50'15''
Piauí.....	2°44'07''S	10°53'05''S	40°29'00''	46°00'24''
Ceará.....	2°46'30''S	7°52'15''S	37°14'54''	41°24'45''
Rio Grande do Norte.....	4°51'54''S	6°58'18''S	43°57'08''	38°35'12''
Paraíba.....	6°02'12''S	8°19'18''S	34°45'54''	38°45'45''
Pernambuco.....	7°15'45''S	9°28'18''S	34°48'33''	41°19'54''
Alagoas.....	8°48'12''S	10°29'12''S	35°09'36''	38°13'54''
Fernando de Noronha, Territory.....	3°48'21''S	3°52'51''S	32°22'48''	32°28'36''
Sergipe.....	9°31'54''S	11°34'12''S	36°24'27''	38°11'20''
Bahia.....	8°32'00''S	18°20'45''S	37°19'39''	46°34'36''
Minas Gerais.....	14°13'06''S	22°54'00''S	39°52'06''	51°02'48''
Espírito Santo.....	17°55'21''S	21°17'59''S	39°40'49''	41°52'32''
Rio de Janeiro.....	20°45'46''S	23°21'42''S	40°57'04''	44°52'06''
Guanabara.....	22°45'05''S	23°04'10''S	43°06'30''	43°47'40''
São Paulo.....	19°46'30''S	25°16'06''S	44°09'24''	53°08'54''
Paraná.....	22°29'30''S	26°42'59''S	48°02'24''	54°37'38''
Santa Catarina.....	25°57'36''S	29°21'48''S	48°22'55''	53°50'00''
Rio Grande do Sul.....	27°03'42''S	33°45'09''S	49°42'41''	57°40'57''
Mato Grosso.....	7°20'39''S	24°05'45''S	50°13'48''	61°31'00''
Goiás.....	5°10'00''S	19°27'50''S	45°55'25''	53°14'00''
Federal District.....	15°30'00''S	16°03'06''S	47°18'21''	48°17'08''
BRAZIL.....	5°16'19''N	33°45'09''S	34°45'54''	73°59'32''

SOURCE — Instituto Brasileiro de Geografia.

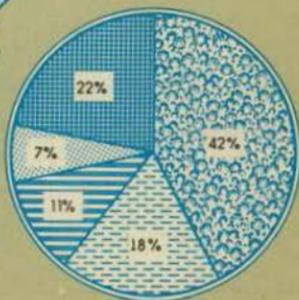
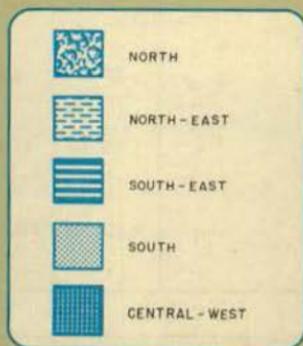
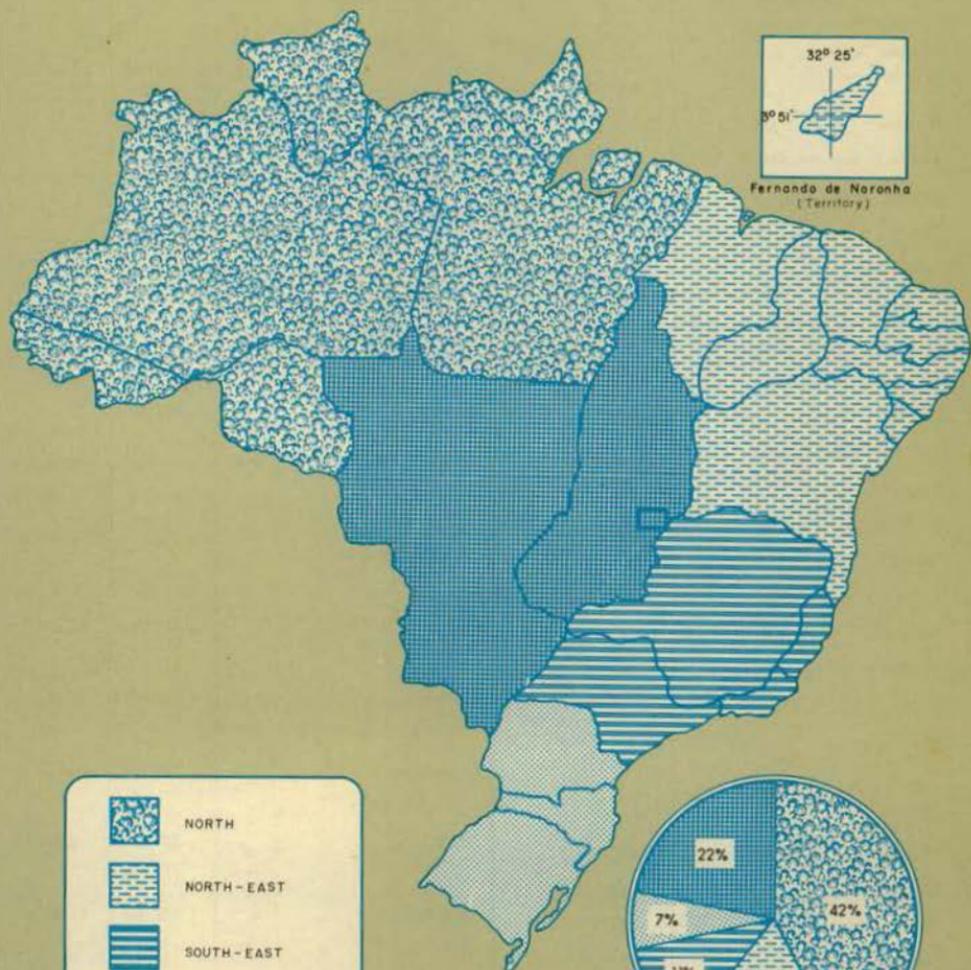


1.1.1 — GEOGRAPHIC LOCATION
1.1.1.2 — Distances between extreme points

STATES AND TERRITORIES	N-S DIRECTION		E-W DIRECTION	
	Angular measure	Linear distance (km)	Angular measure	Linear distance (km)
Rorônia, Territory.....	5°46'00"	638	6°54'15"	755
Acre.....	4°01'37"	445	7°21'47"	809
Amazonas.....	11°58'15"	1 324	17°43'16"	1 996
Roraima, Territory.....	6°43'19"	743	5°41'00"	633
Pará.....	12°28'20"	1 379	13°16'15"	1 477
Amapá, Territory.....	5°34'15"	616	4°52'45"	543
Maranhão.....	9°20'07"	1 032	7°01'45"	781
Piauí.....	8°08'58"	901	5°31'24"	609
Ceará.....	5°05'45"	564	4°09'51"	463
Rio Grande do Norte.....	2°06'24"	233	3°38'04"	403
Paraíba.....	2°17'06"	253	3°59'51"	443
Pernambuco.....	2°12'33"	244	6°31'21"	720
Alagoas.....	1°41'00"	186	3°04'18"	339
Fernando de Noronha, Territory.....	0°04'30"	8	0°05'48"	11
Sergipe.....	2°02'18"	226	1°46'53"	195
Bahia.....	9°48'45"	1 086	9°14'57"	1 013
Minas Gerais.....	8°40'54"	961	11°10'42"	1 184
Espírito Santo.....	3°22'38"	374	2°11'43"	230
Rio de Janeiro.....	2°35'56"	288	3°55'02"	408
Guanebara.....	0°19'05"	35	0°41'10"	70
São Paulo.....	5°29'36"	608	8°59'30"	924
Paraná.....	4°13'29"	468	6°35'14"	674
Santa Catarina.....	3°42'12"	377	5°27'05"	545
Rio Grande do Sul.....	6°41'27"	742	7°58'16"	771
Mato Grosso.....	16°45'06"	1 854	11°17'12"	1 241
Goiás.....	14°17'50"	1 582	7°18'35"	786
Federal District.....	0°33'06"	58	0°58'47"	105
BRAZIL.....	39°01'28"	4 320	39°13'38"	4 328

SOURCE — Instituto Brasileiro de Geografia.

TOTAL AREA DISTRIBUTION BY MAJOR REGIONS



1.1.2 — TOTAL AREA — DISTRIBUTION BY MAJOR REGIONS, STATES AND TERRITORIES

MAJOR REGIONS, STATES AND TERRITORIES	AREA		MAJOR REGIONS, STATES AND TERRITORIES	AREA	
	Absolute (Sq. km)	Per- centage		Absolute (Sq. km)	Per- centage
North			South		
Rondônia, Territory.....	243 044	2,86	Paraná.....	199 554	2,34
Acre.....	152 589	1,79	Santa Catarina.....	95 985	1,13
Amazonas.....	1 564 445	18,38	Rio Grande do Sul.....	282 184	3,32
Area to be delimited, AM/PA.....	2 680	0,03	Central-West		
Roraima, Territory.....	230 104	2,70	Mato Grosso.....	1 231 549	14,47
Pará.....	1 248 042	14,66	Goiás.....	642 092	7,54
Amapá, Territory.....	140 276	1,65	Federal District.....	5 814	0,07
North-East			Summary		
Maranhão.....	328 663	3,86	North	3 581 180	42,07
Piauí.....	250 934	2,95	North-East	1 548 672	18,20
Area to be delimited, PI/CE.....	2 614	0,03	South-East	924 935	10,86
Ceará.....	148 016	1,74	South	577 723	6,79
Rio Grande do Norte.....	53 015	0,62	Central-West	1 879 455	22,08
Paraíba.....	56 372	0,66	BRAZIL	8 511 965	100,00
Pernambuco.....	98 281	1,16			
Alagoas.....	27 731	0,33			
Fernando de Noronha, Territory (1)...	26	0,00			
Sergipe.....	21 934	0,26			
Bahia.....	561 026	6,59			
South-East					
Minas Gerais.....	587 172	6,90			
Espírito Santo (2).....	45 597	0,53			
Rio de Janeiro.....	42 912	0,50			
Guanabara.....	1 356	0,02			
São Paulo.....	247 898	2,91			

SOURCE — Instituto Brasileiro de Geografia.

(1) Including the areas of the Rocas Atoll, and of São Pedro and São Paulo Rocks. (2) Including the areas of the Islands of Trindade and Martim Vaz.



Neblina summit

1.1.3 — HYPSONETRY
1.1.3.1 — Highest elevations

HIGHEST POINT	STATE OR TERRITORY	MOUNTAIN SYSTEM	ELEVATION (m)
Neblina Peak.....	Amazonas	Imeri (Guianas Massif)	3 014
31 de Março Peak....	Amazonas	Imeri (Guianas Massif)	2 992
Bandeira Peak.....	Espirito Santo/Minas Gerais	Caparaó	2 890
Roraima Mount.....	Roraima	Paracaima	2 875
Cruzeiro Peak.....	Espirito Santo	Caparaó	2 861
Cristal Peak.....	Espirito Santo	Caparaó	2 798
Itatiaia Peak.....	Minas Gerais/Rio de Janeiro	Mantiqueira	2 787
Calçado Peak.....	Espirito Santo/Minas Gerais	Caparaó	2 766
Pontão Peak.....	Minas Gerais/São Paulo	Mantiqueira	2 600
Cardona Peak.....	Amazonas	Imeri (Guianas Massif)	2 596
Mashiati Hill.....	Roraima	Imeniariis (Guianas Massif)	2 506
Martins Peak.....	São Paulo	Mantiqueira	2 422

SOURCE — Instituto Brasileiro de Geografia.

1.1.3 — HYPSONOMETRY

1.1.3.2 — Altitudes

HYPSONOMETRIC ZONES	AREA	
	Absolute (Sq. km)	Percentage
Lowlands (under 200m).....	3 489 553	41,0
Highlands (200 — 1 200m).....	4 976 145	58,5
Over 1 200m.....	46 267	0,5
TOTAL	8 511 965	100,0

SOURCE — Instituto Brasileiro de Geografia.

Amazon forest



1.2 — NATURAL RESOURCES

1.2.1 — HIDROGRAPHY

a) Hydraulic power of river basins, by electro-economic regions, States and Territories, as of July 31, 1970

ELECTRO-ECONOMIC REGIONS, STATES AND TERRITORIES	HYDROGRAPHIC BASINS	HYDRAULIC POWER (MW)				
		Total	Stage of utilization			
			In operation	In con- struction	In project or under study	Scheduled for study
North						
Amazonas.....	Amazonian.....	55,1	—	—	—	55,1
Pará.....	Amezcian, Tocantins—Araguaia and North-East.....	5 325,0	—	20,0	70,0	5 235,0
Amapá, Territory.....	Amazonian.....	100,0	—	40,0	20,0	40,0
North-East						
Maranhão.....	Tocantins—Araguaia and North- East.....	57,0	—	—	37,0	20,0
Piauí.....	North-East.....	216,0	108,0	108,0	—	—
Ceará.....	North-East.....	80,0	5,0	15,0	60,0	—
Paraba.....	North-East.....	11,8	4,4	—	7,4	—
Pernambuco.....	São Francisco.....	661,3	—	—	661,3	—
Sergipe.....	São Francisco.....	4 255,0	—	—	4 255,0	—
Bahia.....	São Francisco and East.....	6 744,3	797,0	1 428,0	4 119,3	400,0
Central-South						
Minas Gerais.....	São Francisco, East and Parana .	15 855,7	2 113,6	759,9	5 410,8	7 571,4
Espírito Santo.....	East.....	736,8	46,8	118,0	409,0	163,0
Rio de Janeiro.....	East.....	2 777,5	1 009,9	—	732,6	1 035,0
São Paulo.....	East, Parana and South-East.....	11 595,5	3 003,1	5 206,0	2 986,4	400,0
South						
Paraná.....	Parana and South-East.....	23 440,3	144,9	250,0	73,1	22 972,3
Santa Catarina.....	South-East and Uruguai.....	1 229,8	76,4	22,1	21,3	1 110,0
Rio Grande do Sul.....	South-East and Uruguai.....	2 530,0	208,5	366,5	1 155,0	800,0
Central-West						
Mato Grosso.....	Parana and Paraguai.....	120,0	—	16,0	72,0	32,0
Goiás.....	Tocantins-Araguaia and Parana..	3 151,8	139,7	305,0	547,6	2 159,5
Rondônia, Territory.....	Amazonian.....	377,0	—	—	—	377,0
Brasília, Federal District.....	Parana.....	27,0	27,0	—	—	—
SUMMARY						
North.....	—	5 480,1	—	60,0	90,0	5 330,1
North-East.....	—	12 025,4	914,4	1 551,0	9 140,0	420,0
Central-South.....	—	30 965,5	6 173,4	8 083,9	9 538,8	9 189,4
South.....	—	27 200,1	429,8	638,6	1 249,4	24 882,3
Central-West.....	—	3 675,8	166,7	321,0	619,6	2 568,5
BRAZIL.....	—	79 346,9	7 684,3	8 654,5	20 637,8	42 370,3

SOURCE — Departamento Nacional de Águas e Energia Elétrica.

NOTES — 1. Brazilian total hydraulic power is estimated at 150,000 MW, with a capacity factor of 50%.

2. Data derived from a survey on Brazilian hydraulic power carried out by the Divisão de Águas, Departamento Nacional de Águas e Energia Elétrica.



DEMOGRAPHIC CHARACTERISTICS

POPULATION

Brazil, having an area of 8,511,965 km², belongs to a group of countries characterized by their immense territorial size: USSR, Canada, China, the United States, Brazil and Australia.

The settlement of the United States, Canada, Australia and Brazil began with the shift of communities from Western Europe to the new continents. The population of Brazil, like that of the United States, was formed by the intermingling of various ethnic groups through a process of integration which eliminated the predominance of any one of those ethnic groups in certain areas, effectively avoiding divergencies of a national or political character.

In the United States, the initial colonization by British stock was overlaid by successive waves of European immigrants, joined by others of African, American and Asiatic origin. The first contingents that landed on those shores came from the areas most seriously affected by the changes leading to the Industrial Revolution, and formed an initial nucleus about which subsequent immigrants clustered. There was no such shift, strictly speaking, to Brazil of communities that brought with them the same way of living as in their countries of origin. Portuguese occupation was imposed above all on the lines of a colonial undertaking, though characterized by a constant flow of new settlers. Marked by miscegenation of the Iberian element with the Indian and African strains, and by processes of cultural syncretism that gave it an identity of its own, the Brazilian people was also shaped by migrations of non-Iberian European and Asiatic groups, mostly Japanese, which tended to make the demographic structure more complex.

Contrary to the United States, the initial nucleus of settlement in Brazil was formed by populations linked to countries with agrarian and mercantile traditions. The input of elements proceeding from more industrialized countries, such as Germans and Italians, was in much smaller contingent than to North America. Thus Brazilian society was strongly influenced by the agrarian and mercantile structures of the Mediterranean world, while the drive toward industrialization and modernization acted like a reflex of the industrial world.

As compared with other Latin American nations, the composition of the Brazilian population proves to be more complex than that of the republics of Spanish origin. Here is not to be found a demographic structure formed of two mutually impermeable layers, one of Indian and the other of Spanish origin, as in various Andean and Central American countries and in Mexico, or a European structure with primacy of the heirs to Spanish colonization, as in the River Plate region. It is in population characteristics that Brazil reveals its most striking individuality, as though to stress its qualifications as Latin representative among the continent-size countries.

The Soviet Union, the United States and China ally a vast territorial expanse to a population reckoned in hundreds of millions, while Canada and Australia lie in the 10-million-inhabitant bracket. In the northern hemisphere, the continental countries appear as compact blocs almost continuous in extent, and only separated by the Arctic Ocean. Brazil and Australia, the only ones in the southern hemisphere, stand out as isolated masses located peripherally to those great continental masses. In this group, Brazil takes up an intermediary position as regards population figures. With now close on 100 million inhabitants, it is drawing level with the countries classified as combining a huge area with a large mass of population.

Among the group of continental countries, Brazil alone has an outstandingly continental character. That part of the territory located outside the tropic of Capricorn only amounts to about 7% of the whole area, not reaching as far as the middle latitudes. The south alone rates subtropical conditions. As regards the occupation of geographical space, settlement proceeded inland from the Atlantic seaboard as occurred with the largest countries of the continent. Likewise its main centers of decision are located in the eastern belt of the territory, which, as a whole, is so huge that occupation can only spread with the growth of population, keeping more or less stabilized regions rimmed by an

extensive agricultural fringe of recent settlement. Brazil still has vast expanses almost devoid of population but, unlike the other continent-countries, where the empty spaces comprise desert wastes or polar regions, these endless horizons belong to the spreading area mantled with equatorial forest in the Amazon region. In the scarcely touched natural setting are to be found scattered Indian populations that do not even speak Portuguese and whose cultural level corresponds to a stage prior to the use of metals.

A glance back into the past shows that from 1850 to 1970, a period of 120 years, the Brazilian population swelled from 7 million to 94.5 million. The average annual growth rate of that population rose from 2.4% in the 1940-1950 decade to 3% from 1950 to 1960, dropping slightly to 2.9% in the 1960-1970 period. This expansion resulted mainly from vegetative growth inasmuch as the part played by immigration was very small.

The industrialization and modernization stage that followed on the heels of World War II and has gathered momentum in recent times has helped build up areas of more advanced economy in the country, forging ahead next to more backward areas, as is apt to happen with developing nations. But in Brazil, the proportions already attained by the modern industrial sector have imparted new dynamism to the country's progress enabling it to supersede the traditional agrarian and mercantile structure. Parallel to the growth of industry, integration of the national space has spread with expansion of the highway system, accompanied by development of urbanization to a level that is most unusual in developing countries. By 1970, more than half the population was already living in an urban setting; two metropolitan regions each have a population of more than 6 million, while Belo Horizonte and Recife are cities of more than one million inhabitants.

Keeping pace with the intensification of internal relations in Brazil as a result of industrialization, urbanization and the engineering of a highway network, the spatial structure of the country has evolved according to the "archipelago" pattern, where direct linkages with abroad prevail, accentuating a nucleus/periphery model.

The nucleus is formed mainly by the great metropolitan regions of São Paulo and Rio de Janeiro, united by the valley of the river Paraíba do Sul. The rise of the two national metropolises is related to the importance of their position in a region favored by the most significant period of agricultural expansion for the development of the country, which is known as the coffee cycle. In the case of Rio de Janeiro, special mention should be made of its function as seat of the federal government since Independence and up till quite recently. As chief entrances for modern immigration, including the urban settlement of Europeans, those cities are superimposed on the agrarian regions of the Southeast, and figure as focuses of concentration of private enterprise, starting-points for government undertakings, and sites for the headquarters of large establishments in the fields of secondary and tertiary activity. In the '60s, the change of the national capital to Brasília represented a spearpoint thrust outward from the nucleus into the peripheral space surrounding it, and the growth of that city has been determined by its role as center of government decision.

Schematically, the fringe comprises three large spatial units: the Southern Center, the Northeast and Amazonia.

2.1 — POPULATION

2.1.1 — CENSUS RESULTS

2.1.1.1 — Present population, by main personal characteristics — 1900-1970

MAIN PERSONAL CHARACTERISTICS	PRESENT POPULATION					
	31-12-1900 (1)	1.-9-1920	1.-9-1940	1.-7-1950	1.-9-1960 (2)	1.-9-1970 (2)
TOTAL	17 438 434	30 635 605	41 236 315	51 944 397	70 119 071	93 204 379
Sex						
Male.....	8 900 526	15 443 818	20 614 088	25 885 001	35 010 717	46 330 629
Female.....	8 537 908	15 191 787	20 622 227	26 059 396	35 108 354	46 873 750
Age groups (In years)						
0-4.....	3 001 523	4 593 163	6 439 650	8 370 880	11 196 313	13 898 622
5-9.....	2 622 485	4 575 530	5 758 816	7 015 527	10 161 291	13 301 427
10-14.....	2 062 315	3 909 630	5 328 080	6 308 567	8 573 877	11 665 724
15-19.....	1 862 761	(3) 4 217 917	4 443 923	5 502 315	7 142 443	10 203 492
20-24.....	1 573 072	(4) 2 139 364	3 813 355	4 991 139	6 160 742	8 422 167
25-29.....	1 453 300	2 487 431	3 356 370	4 132 271	5 208 742	6 546 791
30-39.....	2 040 009	3 560 225	4 901 682	6 286 052	8 505 084	10 782 038
40-49.....	1 350 029	2 401 200	3 441 727	4 365 359	5 959 858	8 094 393
50-59.....	771 330	1 451 319	2 044 907	2 650 314	3 786 394	5 354 738
60-69.....	355 235	800 866	1 076 139	1 451 468	2 185 327	3 067 143
70 and over.....	203 164	433 310	599 395	753 873	1 128 296	1 683 495
Age not reported.....	143 211	65 650	32 271	116 632	110 704	174 349
Marital status (5)						
Single.....	4 316 727	...	9 659 144	11 777 572	(6) 13 678 125	19 223 004
Married.....	4 611 067	...	12 231 079	16 371 303	(6) 23 225 167	30 801 910
Separated.....	...	...	...	...	917 954	1 208 151
Legally separated and divorced.....	46 328	...	67 156	40 164	46 644	115 664
Widowed.....	761 697	...	1 721 896	1 992 312	2 270 369	2 928 313
Status not reported.....	16 292	...	30 494	68 072	51 132	61 564
Education						
Literate.....	3 380 451	6 155 567	10 379 990	14 916 779	24 321 798	36 345 241
Illiterate.....	6 348 869	11 401 715	13 269 381	15 272 632	15 815 903	17 936 887
Not reported.....	22 791	—	60 398	60 012	49 889	56 478

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Data for the ex-Federal District, presently Guanabara State, are related to the Census undertaken on September 20, 1906. (2) Preliminary results obtained by sampling procedures. (3) Including persons 20 years old. (4) Excluding persons 20 years old. (5) Persons 15 years old and over. (6) Persons living in steady consensual unions were treated as married.

2.1.1 — CENSUS RESULTS

2.1.1.2 — Present population 10 years old and over by sex, activity status and industry — 1940-1970

ACTIVITY STATUS AND INDUSTRY	PERSONS 10 YEARS OLD AND OVER							
	1.-9-1940		1.-7-1950		1.-9-1960		1.-9-1970 (1)	
	Male	Female	Male	Female	Male	Female	Male	Female
ABSOLUTE NUMBERS (Inhabitants)								
TOTAL	14 434 611	14 603 238	18 088 275	18 469 715	24 139 458	24 622 009	32 580 846	33 423 484
Economically active	11 958 968	2 799 630	14 609 798	2 507 564	18 597 163	4 054 100	23 390 487	6 154 806
Agriculture, livestock production, forestry, logging, hunting and fishing.....	8 415 068	1 310 625	9 495 865	758 380	10 941 580	1 221 477	11 792 294	1 279 081
Manufacturing and other industrial activities.....	1 220 818	297 617	1 955 301	391 565	2 456 289	506 871	4 619 676	644 129
Wholesale and retail trade.....	698 202	50 941	869 448	89 061	1 345 301	174 745	2 161 072	462 823
Services.....	473 741	862 184	746 829	925 973	1 291 204	1 440 944	967 871	2 292 790
Transportation, communication and storage.....	485 782	14 402	668 267	28 822	1 044 183	44 635	1 203 019	56 048
Social activities.....	87 853	116 439	200 689	233 626	266 661	433 614	465 297	949 846
Government.....	382 080	23 548	468 164	44 480	577 874	84 037	992 841	162 113
Other.....	195 324	23 874	205 235	35 657	674 091	147 777	1 188 417	307 966
Not economically active ...	2 475 643	11 803 608	3 478 477	15 962 151	5 542 295	20 567 909	9 190 359	27 268 678
PERCENTAGE								
TOTAL	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Economically active	82,8	19,2	80,8	13,6	77,0	16,5	71,8	18,4
Agriculture, livestock production, forestry, logging, hunting and fishing.....	58,3	9,0	52,5	4,1	45,3	5,0	36,2	3,8
Manufacturing and other industrial activities.....	8,5	2,0	10,8	2,1	10,2	2,1	14,2	1,9
Wholesale and retail trade.....	4,8	0,3	4,8	0,5	5,6	0,7	6,6	1,4
Services.....	3,3	6,6	4,1	5,0	5,3	5,9	3,0	6,9
Transportation, communication and storage.....	3,4	0,1	3,7	0,2	4,3	0,2	3,7	0,2
Social activities.....	0,6	0,8	1,1	1,3	1,1	1,7	1,5	2,8
Government.....	2,6	0,2	2,6	0,2	2,4	0,3	3,0	0,5
Other.....	1,3	0,2	1,2	0,2	2,8	0,6	3,6	0,9
Not economically active	17,2	80,8	19,2	86,4	23,0	83,5	28,2	81,6

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Preliminary data relating to the resident population.

2.1.1 — CENSUS RESULTS

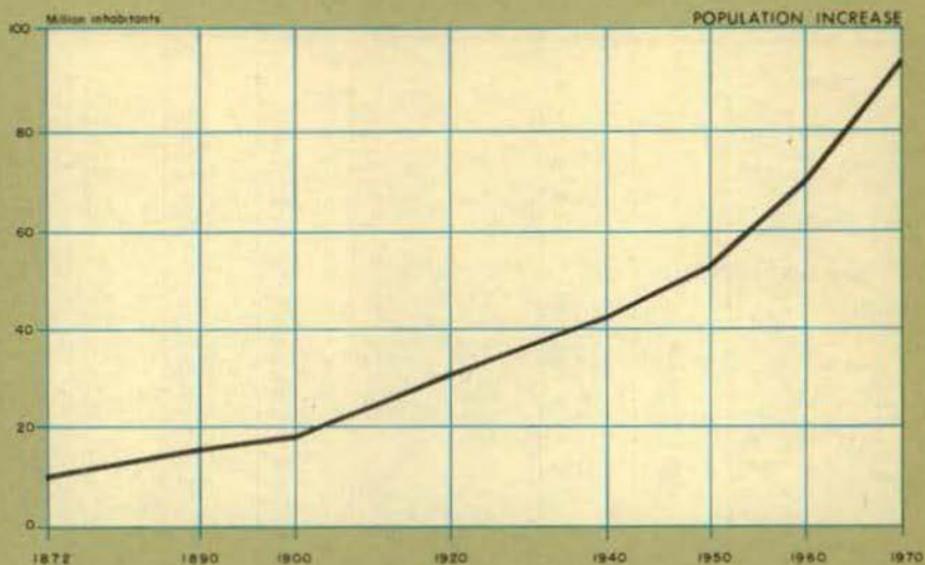
2.1.1.3 — Present population by Major Regions, States and Territories — 1872-1970

MAJOR REGIONS, STATES AND TERRITORIES	PRESENT POPULATION							
	1.-8-1872	31-12-1890	31-12-1900	1.-9-1920	1.-9-1940	1.-7-1950	1.-9-1960 (1)	1.-9-1970 (1)
North								
Rondônia, Territory.....	...	...	...	...	...	36 935	70 783	116 620
Acre.....	...	...	...	92 379	79 768	114 755	160 208	218 006
Amazonas.....	57 610	147 915	249 756	363 166	438 008	514 099	721 215	960 934
Roraima, Territory.....	...	...	...	...	...	18 116	29 489	41 638
Pará.....	275 237	328 455	445 356	983 507	944 644	1 123 273	1 550 935	2 197 072
Amapá, Territory.....	...	...	...	...	...	37 477	68 889	116 480
North-East								
Maranhão.....	359 040	430 854	499 308	874 337	1 235 169	1 583 248	2 492 139	3 037 135
Piauí.....	202 222	267 609	334 328	609 003	817 601	1 045 696	1 263 368	1 734 865
Ceará.....	721 686	805 687	849 127	1 319 228	2 091 032	2 695 450	3 337 856	4 491 590
Rio Grande do Norte.....	233 979	268 273	274 317	537 135	768 018	967 921	1 157 258	1 611 606
Paraíba.....	376 226	457 232	490 784	961 106	1 422 282	1 713 259	2 018 023	2 445 419
Pernambuco.....	841 539	1 030 224	1 178 150	2 154 835	2 688 240	3 395 185	4 136 900	5 252 590
Alagoas.....	348 009	511 440	649 273	978 748	951 300	1 093 137	1 271 062	1 606 174
Fernando de Noronha, Ter- ritory.....	...	...	...	...	...	581	1 389	1 311
Sergipe.....	176 243	310 926	356 264	477 064	542 326	644 361	760 273	911 251
Bahia.....	1 379 616	1 919 802	2 117 956	3 334 465	3 918 112	4 834 575	5 890 605	7 583 140
South-East								
Minas Gerais.....	2 039 735	3 184 099	3 594 471	5 888 174	6 763 368	7 782 188	9 960 040	11 645 095
Espírito Santo.....	82 137	135 997	209 783	457 328	790 149	857 238	1 418 348	1 617 875
Rio de Janeiro.....	782 724	876 884	926 035	1 559 371	1 847 857	2 297 194	3 402 728	4 794 578
Guanabara.....	274 972	522 651	811 443	1 157 873	1 764 141	2 377 451	3 307 163	4 315 746
São Paulo.....	837 354	1 384 753	2 282 279	4 592 188	7 180 316	9 134 423	12 974 699	17 958 693
South								
Paraná.....	126 722	249 491	327 136	685 711	1 236 276	2 115 547	4 296 375	6 997 682
Santa Catarina.....	159 802	283 769	320 289	668 743	1 178 340	1 560 502	2 146 909	2 930 411
Rio Grande do Sul.....	434 813	897 455	1 149 070	2 182 713	3 320 689	4 164 821	5 448 823	6 755 458
Central-West								
Mato Grosso.....	60 417	92 827	118 025	246 612	432 265	522 044	910 262	1 623 618
Goiás.....	160 395	227 572	255 284	511 919	826 414	1 214 921	1 954 862	2 997 570
Federal District.....	...	...	...	...	...	...	141 742	546 015
SUMMARY								
North.....	332 847	476 370	695 112	1 439 052	1 462 420	1 844 655	2 601 519	3 650 750
North-East.....	4 638 560	6 002 047	6 749 507	11 245 921	14 434 080	17 973 413	22 428 873	28 675 081
South-East.....	4 016 922	6 104 384	7 824 011	13 654 934	18 345 831	22 548 494	31 062 978	40 331 969
South.....	721 337	1 430 715	1 796 495	3 537 167	5 735 305	7 840 870	11 892 107	16 683 551
Central-West.....	220 812	320 399	373 309	758 531	1 258 679	1 736 965	3 006 866	5 167 203
BRAZIL.....	9 930 478	14 333 915	17 438 434	30 635 605	41 236 315	51 944 397	70 992 343	94 508 554

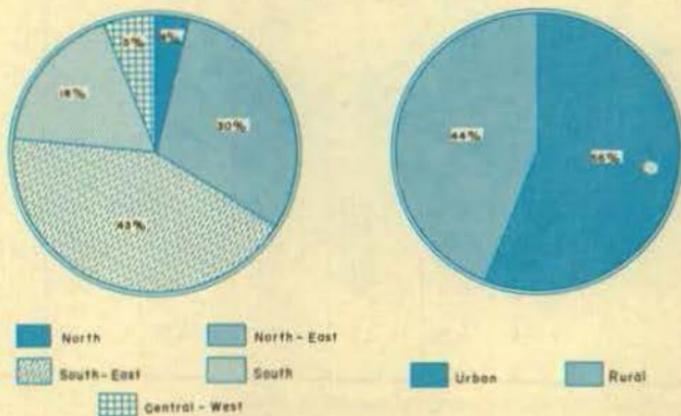
SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Preliminary data relating to the enumerated population.

POPULATION



DISTRIBUTION OF POPULATION - 1970



2.1.1 — CENSUS RESULTS

2.1.1.4 — Population density by Major Regions, States and Territories — 1872-1970

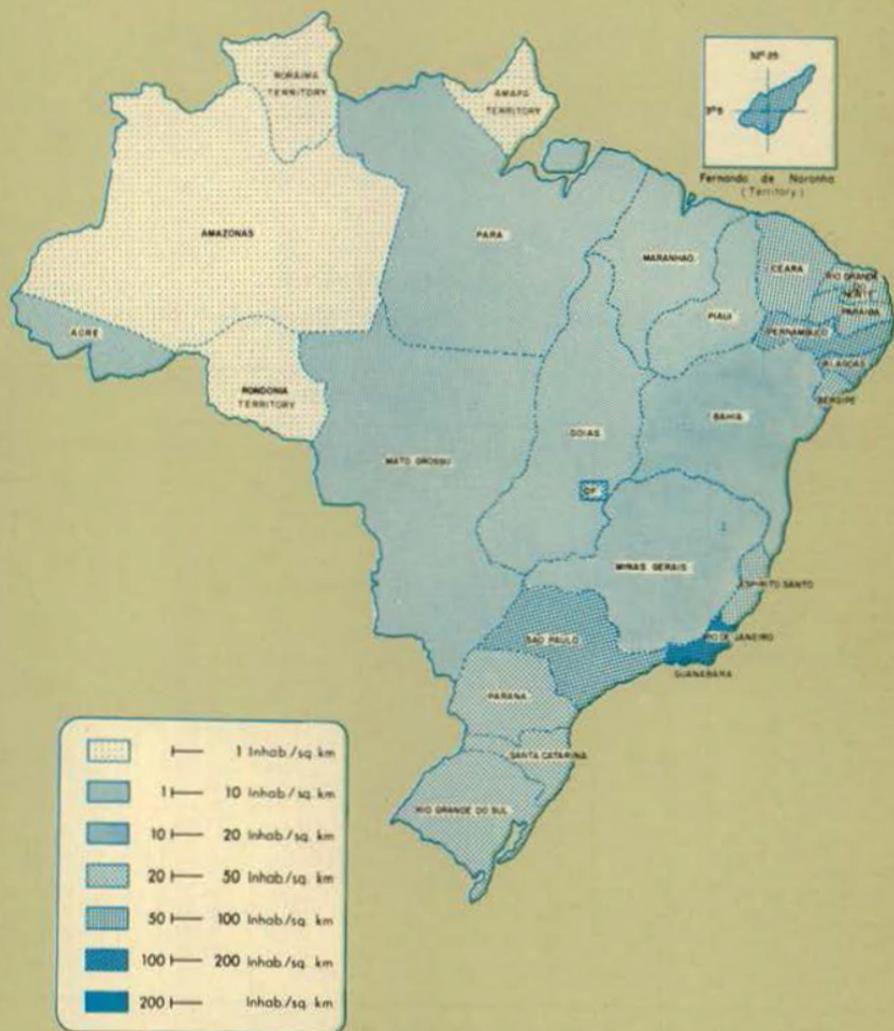
MAJOR REGIONS, STATES AND TERRITORIES	POPULATION DENSITY (Inhab./sq.km)							
	1. ^o -8-1872	31-12-1890	31-12-1900	1. ^o -9-1920	1. ^o -9-1940	1. ^o -7-1950	1. ^o -9-1960 (1)	1. ^o -9-1970 (1)
North								
Rondônia, Territory.....	...	...	...	...	...	0,15	0,29	0,48
Acre.....	...	...	...	...	0,52	0,75	1,05	1,43
Amazonas.....	0,04	0,09	0,16	0,23	0,28	0,33	0,46	0,62
Roraima, Territory.....	...	...	...	...	...	0,08	0,13	0,18
Pará.....	0,22	0,27	0,36	0,80	0,77	0,92	1,26	1,76
Amapá, Territory.....	...	...	...	...	...	0,27	0,50	0,84
North-East								
Maranhão.....	1,11	1,33	1,54	2,69	3,81	4,88	7,68	9,36
Piauí.....	0,81	1,07	1,33	2,43	3,26	4,17	5,03	6,91
Ceará.....	4,92	5,49	5,78	8,99	14,24	18,36	22,73	30,59
Rio Grande do Norte....	4,41	5,06	5,17	10,13	14,49	18,26	21,83	30,40
Paraíba.....	6,67	8,11	8,71	17,05	25,23	30,39	35,80	43,38
Pernambuco.....	8,56	10,48	11,99	21,93	27,35	34,55	42,09	53,44
Alagoas.....	12,59	18,50	23,48	35,40	34,40	39,53	45,97	58,09
Fernando de Noronha, Ter- ritory.....	...	...	...	...	...	23,24	55,56	52,44
Sergipe.....	8,01	14,14	16,20	21,69	24,66	29,30	34,57	41,43
Bahia.....	2,46	3,43	3,78	5,95	7,00	8,63	10,70	13,54
South-East								
Minas Gerais.....	3,50	5,47	6,17	10,11	11,61	13,36	17,00	19,99
Espírito Santo.....	1,80	2,98	4,60	10,03	17,33	20,99	31,11	35,48
Rio de Janeiro.....	18,58	20,81	21,98	37,01	43,86	54,52	80,76	113,79
Guanabara.....	234,82	446,33	692,95	988,79	1 506,53	2 030,27	2 824,22	3 685,52
São Paulo.....	3,39	5,60	9,23	18,57	29,03	36,93	52,46	72,61
South								
Paraná.....	0,64	1,25	1,64	3,44	6,21	10,63	21,58	35,15
Santa Catarina.....	1,67	2,97	3,35	7,00	12,34	16,34	22,48	30,69
Rio Grande do Sul.....	1,63	3,35	4,30	8,16	12,41	15,57	20,37	25,25
Central-West								
Mato Grosso.....	0,05	0,08	0,10	0,20	0,35	0,42	0,74	1,32
Goiás.....	0,25	0,35	0,40	0,80	1,29	1,89	3,04	4,57
Federal District.....	...	...	...	...	...	...	24,56	94,61
SUMMARY								
North.....	0,09	0,13	0,20	0,40	0,41	0,52	0,73	1,03
North-East.....	3,01	3,89	4,38	7,29	9,36	11,65	14,54	18,59
South-East.....	4,37	6,64	8,52	14,86	19,97	24,54	33,81	43,90
South.....	1,28	2,55	3,20	6,29	10,20	13,95	21,16	29,68
Central-West.....	0,12	0,17	0,20	0,40	0,67	0,92	1,60	2,75
BRAZIL.....	1,17	1,70	2,06	3,62	4,88	6,14	8,39	11,18

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Preliminary data.

POPULATION

Population density - 1970



2.1.1 — CENSUS RESULTS

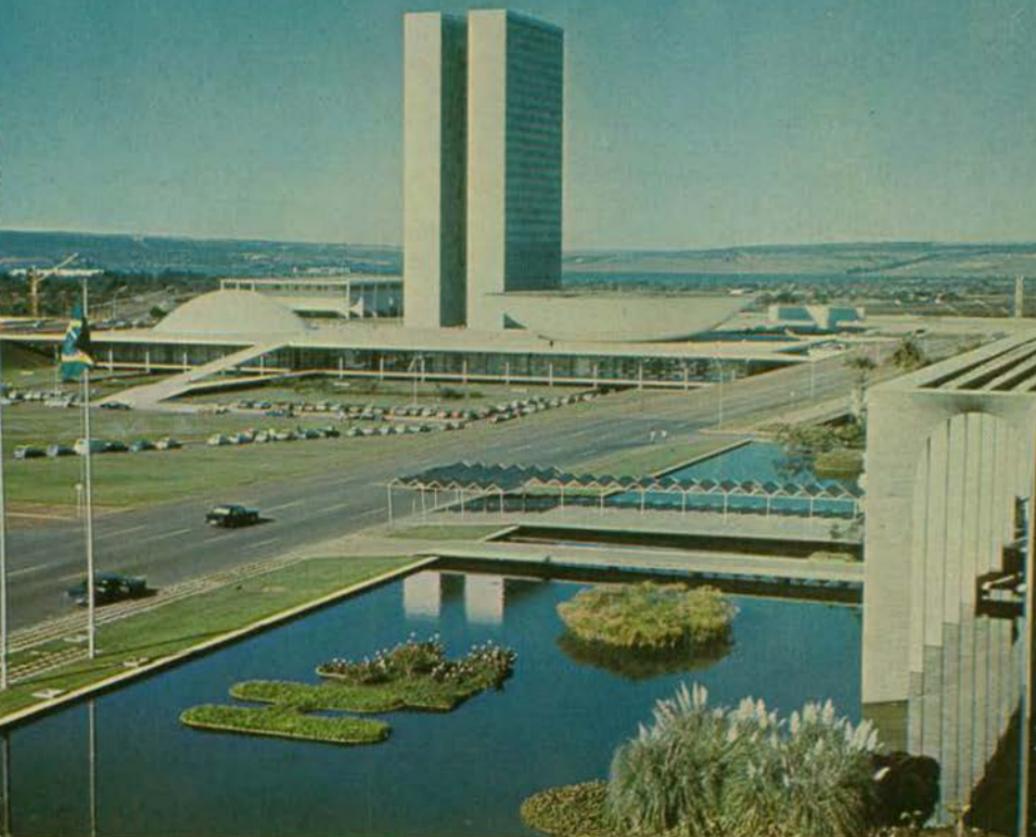
2.1.1.5 — Present population by "Municípios" of the Capital Cities — 1872-1970

"MUNICÍPIOS" OF THE CAPITAL CITIES	PRESENT POPULATION							
	1. ^o -8-1872	31-12-1890	31-12-1900	1. ^o -9-1920	1. ^o -9-1940	1. ^o -7-1950	1. ^o -9-1960 (1)	1. ^o -9-1970 (1)
Porto Velho.....	...	...	...	...	...	27 244	51 049	88 856
Rio Branco.....	...	...	...	19 930	16 038	28 246	47 882	84 845
Manaus.....	29 334	38 720	50 300	75 704	106 399	139 620	175 343	314 197
Boa Vista.....	...	...	...	...	...	17 247	26 168	37 062
Belém.....	61 997	50 064	96 560	236 402	206 331	254 949	402 170	642 514
Macapá.....	...	...	...	...	...	20 594	46 905	87 755
São Luis.....	31 604	29 308	36 798	52 929	85 583	119 785	159 628	270 651
Teresina.....	21 692	31 523	45 316	57 500	67 641	90 723	144 799	230 168
Fortaleza.....	42 458	40 902	48 369	78 536	180 185	270 169	514 813	872 702
Natal.....	20 392	13 725	16 056	30 696	54 836	103 215	162 537	270 127
João Pessoa.....	24 714	18 645	28 793	52 990	94 333	119 326	155 117	228 418
Recife.....	116 671	111 556	113 106	238 843	348 424	524 682	797 234	1 084 459
Maceió.....	27 703	31 498	36 427	74 166	90 253	120 980	170 134	269 415
Aracaju.....	9 559	16 336	21 132	37 440	59 031	78 364	115 713	186 838
Salvador.....	129 109	174 412	205 813	283 422	290 443	417 235	655 735	1 027 142
Belo Horizonte.....	...	...	13 472	55 463	211 377	352 724	693 328	1 255 415
Vitória.....	16 157	16 887	11 850	21 866	45 212	50 922	85 242	136 391
Niterói.....	47 548	34 268	53 433	85 238	142 407	186 309	245 467	330 396
Rio de Janeiro.....	274 872	522 651	811 443	1 157 873	1 764 141	2 377 451	3 307 163	4 315 746
São Paulo.....	31 385	64 934	239 820	579 033	1 326 261	2 198 096	3 825 351	5 978 977
Curitiba.....	12 651	24 553	59 765	78 986	140 656	180 575	361 309	624 362
Florianópolis.....	25 709	30 687	32 229	41 338	46 771	67 630	98 520	143 414
Porto Alegre.....	43 998	52 421	73 474	179 263	272 232	394 151	641 173	903 175
Cuiabá.....	35 887	17 815	34 339	33 678	54 394	56 204	57 860	103 427
Goiânia.....	...	...	...	...	48 166	53 389	153 505	389 784
Brasília.....	...	...	...	...	...	...	92 761	277 005

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — "Município" is an administrative circumscription with a local Government led by a mayor and a Municipal Council. For statistical purposes it is the information unit, i. e. the primary source of statistical information, including data for urban and rural zones.

(1) Preliminary data relating to the enumerated population.



Brasília-DF

DEVELOPMENT OF URBAN CENTERS

Over the last thirty years, Brazil is losing its condition of an essentially agricultural country, with a noticeable overall growth of urban population. The 1970 Nationwide Census showed, for the first time, an urban population greater than the rural: 55.98%. This fact is related to the industrialization process of the Country which, as it expands and consolidates, leads to the acceleration of the development of several urban centers.

Between 1940 and 1970, there was an expressive growth of towns, specially the medium-sized ones (between 20,000 and 100,000 inhabitants) and large ones (over 100,00 inh.), of 465% and 400%, respectively. As to the small towns, the percent growth was 178%. This clearly shows a greater rate of growth of medium-sized and large cities, which are playing a very important role in the urbanization process.

The population growth of urban centers is related to the natural growth of population and to migrations. Regarding the natural or vegetative growth, it is seen that, even in more urbanized centers, the birth rates are high. As to the migrations, they occur not only from the countryside to the city, but from smaller urban centers to bigger ones which, due to the industrial development and a widening of commercial and service sectors, attract people as they offer a larger labor market.

This urbanization process is observed in every Brazilian region, although in different degrees, but is more noticeable in those areas with greater economic development, that is, those more industrialized.

The urbanization process occurred more intensely in the Southeast. There, the two chief metropolitan areas of the Country have developed: São Paulo and Rio de Janeiro; and, in the last few years, the metropolitan area of Belo Horizonte is being formed. Besides, in this Region a number of large and medium-sized towns are concentrated, thus reflecting a certain organization of the urban network. Among them, we should mention those within the urban structure which hold the position of regional centers, such as: Campinas, Sorocaba, Ribeirão Preto, Bauru, Juiz de Fora, Governador Valadares, Campos and Vitória.

Those towns represent, alongside with the metropolises, a converging point for the population of smaller towns and the countryside, when displacing in the search for employment in the secondary and tertiary sectors.

In Southern Brazil, the urbanization process is more recent than in the Southeast. Rio Grande do Sul is the most urbanized State, and there is Porto Alegre, forming its own urban network, based upon the industrial growth that stretches through Canoas, Esteio, São Leopoldo, Novo Hamburgo, all of them a part of the Porto Alegre metropolitan area.

Among the most prominent regional centers are worth mentioning: Caxias do Sul, Passo Fundo, Santa Maria and Pelotas.

In Santa Catarina we see, besides Florianópolis, some towns in the Itajaí River valley which are outstanding because of their industrial development, particularly Joinville and Blumenau. Two other dynamic centers, in the colonial Western area of Santa Catarina are Joaçaba and Chapecó.

In Paraná, Curitiba is becoming industrialized, expanding its urbanized space and its metropolitan area is under formation. At the same time, we cannot fail to call the attention to the dynamic urban growth of Ponta Grossa and, in the North, Londrina and Maringá which in a short time, were transformed into regional centers.

The Northeastern Region of Brazil is characterized by an urbanization along the coast, where some of the medium-sized towns and most of the largest are concentrated, while the small towns predominate in the interior. The large cities showed a high rate of growth, particularly the metropolises of Recife, Salvador and Fortaleza, and all the other State capitals. Also, some regional centers such as Sobral, Juazeiro do Norte, Crato, Caruaru, Campina Grande, Feira de Santana are showing a great demographic growth.

In the Northern Region, the towns are linearly and sparsely arranged along the valleys. Their urban structure is the reflex of an area lacking economic dynamism and underpopulated, where only two great centers are noteworthy: Belém, considered to be regional metropolis, and Manaus, a regional center, absorbing, both of them, 55% of the urban population of the Northern Region. There are numerous small towns in this Region, while those of medium size are practically nonexistent.

In the Central-West Region, the urban network is more balanced than in the North, although the small centers are predominating, too. However, a regular number of medium-sized towns is found here, such as: Anápolis, Campo Grande, Corumbá, and Cuiabá, alongside with two large cities that take the lead in the Region: Brasília and Goiânia.

The urban growth verified in Brazil, in the last thirty years, tends to become more and more accentuated and better organized, to the extent that the secondary and tertiary activities of each town are able to offer real conditions for attending to the great majority of these populations that migrate to bigger centers, looking for jobs and better living conditions.

2.1.1 — CENSUS RESULTS

2.1.1.6 — Present population by urban and rural residence, Major Regions, States and Territories — 1940-1970

MAJOR REGIONS, STATES AND TERRITORIES	PRESENT POPULATION							
	Urban				Rural			
	1. ^o -9-1940	1. ^o -7-1950	1. ^o -9-1960 (1)	1. ^o -9-1970 (1)	1. ^o -9-1940	1. ^o -7-1950	1. ^o -9-1960 (1)	1. ^o -9-1970 (1)
North								
Rondônia, Territory.....	...	13 816	30 842	60 541	...	23 119	39 941	56 079
Acre.....	14 138	21 272	33 998	60 557	65 630	93 483	126 210	157 449
Amazonas.....	104 789	137 736	239 659	409 278	333 219	376 363	481 556	551 656
Roraima, Territory.....	...	5 132	12 717	17 929	...	12 984	16 772	23 709
Pará.....	286 865	389 011	630 672	1 037 340	657 779	734 262	920 263	1 159 732
Amapá, Territory.....	...	13 900	35 390	63 785	...	23 577	33 499	52 695
North-East								
Maranhão.....	185 552	274 288	448 509	771 790	1 049 617	1 308 960	2 043 630	2 265 345
Piauí.....	124 197	170 584	298 152	561 081	693 404	875 112	965 216	1 173 784
Ceará.....	475 028	679 604	1 124 829	1 811 202	1 616 004	2 015 846	2 213 027	2 680 388
Rio Grande do Norte.....	164 248	253 765	435 189	751 064	603 770	714 156	722 069	860 542
Paraíba.....	311 402	456 716	708 051	1 019 338	1 110 880	1 256 543	1 309 972	1 426 061
Pernambuco.....	787 808	1 167 400	1 856 689	2 861 178	1 900 432	2 227 785	2 280 211	2 391 412
Alagoas.....	229 126	286 379	428 228	642 208	722 174	806 758	842 834	963 966
Fernando de Noronha, Territory.....	...	581	1 389	1 311	...	—	—	—
Sergipe.....	166 241	204 984	295 929	421 358	376 085	439 377	464 344	489 893
Bahia.....	937 571	1 250 507	2 083 716	3 140 407	2 980 541	3 584 068	3 906 889	4 442 733
South-East								
Minas Gerais.....	1 693 658	2 322 915	3 964 580	6 167 113	5 069 710	5 459 273	5 995 460	5 477 982
Espírito Santo.....	157 925	199 186	403 461	734 756	632 224	758 052	1 014 887	883 101
Rio de Janeiro.....	693 201	1 091 359	2 077 221	3 697 311	1 154 656	1 205 835	1 325 507	1 097 267
Guanabara.....	1 519 010	2 303 063	3 223 408	4 315 746	245 131	74 388	83 755	—
São Paulo.....	3 168 111	4 804 211	8 149 979	14 432 244	4 012 205	4 330 212	4 824 720	3 526 449
South								
Paraná.....	302 272	528 288	1 327 982	2 546 899	934 004	1 587 259	2 968 393	4 450 783
Santa Catarina.....	253 717	362 717	695 347	1 266 709	924 623	1 197 785	1 451 562	1 663 702
Rio Grande do Sul.....	1 034 486	1 421 980	2 445 774	3 620 588	2 286 203	2 742 841	3 003 049	3 134 870
Central-West								
Mato Grosso.....	128 727	177 830	364 004	699 661	303 538	344 214	546 258	923 957
Goiás.....	142 110	245 667	599 404	1 269 035	684 304	969 254	1 355 458	1 728 535
Federal District.....	...	...	89 698	524 315	...	...	52 044	21 700
SUMMARY								
North.....	405 792	580 867	983 278	1 649 430	1 056 628	1 263 788	1 618 241	2 001 320
North-East.....	3 381 173	4 744 808	7 680 681	11 980 937	11 052 907	13 228 605	14 748 192	16 694 144
South-East.....	7 231 905	10 720 734	17 818 649	29 347 170	11 113 926	11 827 760	13 244 329	10 984 799
South.....	1 590 475	2 312 985	4 489 103	7 434 196	4 144 830	5 527 885	7 423 004	9 249 355
Central-West.....	270 837	423 497	1 053 106	2 493 011	987 842	1 313 468	1 953 760	2 674 192
BRAZIL.....	12 880 182	18 782 891	32 004 817	52 904 744	28 356 133	33 161 506	38 987 526	41 603 810

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Preliminary data relating to the enumerated population.

2.1.1 — CENSUS RESULTS

2.1.1.7 — Enumerated population and annual geometric mean rates of increase, by Major Regions, States and Territories — 1960-1970

MAJOR REGIONS, STATES AND TERRITORIES	ENUMERATED POPULATION		ANNUAL GEOMETRIC MEAN RATES OF INCREASE
	1-9-1960 (1) (2)	1-9-1970 (2) (3)	
North			
Rorônia, Territory.....	70 783	116 620	0.06
Acre.....	160 208	218 006	0.03
Amazonas.....	721 215	960 934	0.03
Roraima, Territory.....	29 489	41 638	0.04
Parâ.....	1 550 935	2 197 072	0.03
Amapâ, Territory.....	68 889	116 480	0.05
North-East			
Maranhão.....	2 492 139	3 037 135	0.02
Piaul.....	1 263 368	1 734 865	0.03
Cearâ.....	3 337 856	4 491 590	0.03
Rio Grande do Norte.....	1 157 258	1 611 606	0.03
Paraiba.....	2 018 023	2 445 419	0.02
Pernambuco (4).....	4 138 289	5 253 901	0.02
Alagoas.....	1 271 062	1 606 174	0.02
Sergipe.....	760 273	911 251	0.02
Bahia.....	5 990 605	7 583 140	0.02
South-East			
Minas Gerais.....	9 960 040	11 645 095	0.02
Espírito Santo.....	1 418 348	1 617 857	0.01
Rio de Janeiro.....	3 402 728	4 794 578	0.03
Guanabara.....	3 307 163	4 315 746	0.03
São Paulo.....	12 974 699	17 958 693	0.03
South			
Paraná.....	4 296 375	6 997 682	0.05
Santa Catarina.....	2 146 909	2 930 411	0.03
Rio Grande do Sul.....	5 448 623	6 755 458	0.02
Central-West			
Mato Grosso.....	910 262	1 623 618	0.06
Goiâs (5).....	2 096 604	3 543 585	0.05
SUMMARY			
North.....	2 601 519	3 650 750	0.03
North-East.....	22 428 873	28 675 081	0.02
South-East.....	31 062 978	40 331 969	0.03
South.....	11 892 107	16 683 551	0.03
Central-West.....	3 006 866	5 167 203	0.06
BRAZIL	70 992 343	94 508 554	0.03

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Figures based on a sample of 1.27 percent. (2) The **resident population** concept is officially adopted, the totals of which are: 70 128 442 in 1960, and 93 215 301 in 1970. Double counting eventually occurs in the enumerated population (see text). (3) Figures based on a sample of 1.3 percent. (4) Including the Territory of Fernando de Noronha. (5) Including the Federal District.

NOTE — Rates were computed by the use of formula

$$i = \sqrt[n]{\frac{P_{70}}{P_{60}}} - 1$$

where P70 and P60 are respectively the populations on the 1970 and 1960 Censuses dates, n is the intercensal period, and i the geometric mean rate.



Urban population: 56% of total population (1970 Census)

2.1.1 — CENSUS RESULTS

2.1.1.8 — Number of "Municípios" and enumerated population, by groups of inhabitants — 1970

GROUPS OF INHABITANTS	"MUNICÍPIOS"		POPULATION	
	Number	Percentage	Number	Percentage
Up to 2 000.....	56	1,4	92 110	0,1
2 001 - 5 000.....	602	15,2	2 213 159	2,3
5 001 - 10 000.....	1 058	26,8	7 764 490	8,2
10 001 - 20 000.....	1 159	29,3	16 403 363	17,4
20 001 - 50 000.....	826	20,9	24 898 753	26,5
50 001 - 100 000.....	157	4,0	10 443 490	11,0
100 000 and over.....	94	2,4	32 593 189	34,5
TOTAL.....	3 952	100,0	94 508 554	100,0

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.5.

2.1.1 — CENSUS RESULTS

2.1.1.9 — Number of districts and enumerated population by groups of inhabitants — 1970

GROUPS OF INHABITANTS	DISTRICTS		POPULATION	
	Number	Percentage	Number	Percentage
Up to 1 000	200	2,5	144 395	0,1
1 001 — 2 000	830	10,5	1 282 796	1,4
2 001 — 5 000	2 728	34,6	9 309 908	9,9
5 001 — 10 000	2 119	26,9	15 036 883	15,9
10 001 — 20 000	1 256	15,9	17 286 869	18,3
20 001 — 50 000	570	7,2	16 666 324	17,6
50 000 and over	188	2,4	34 781 379	36,8
TOTAL	7 891	100,0	94 508 554	100,0

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

2.1.1.10 — Number of cities and enumerated population, by groups of inhabitants — 1970

GROUPS OF INHABITANTS	CITIES (1)		POPULATION	
	Number	Percentage	Number	Percentage
Up to 500	174	4,4	63 427	0,1
501 — 1 000	620	15,7	466 408	1,0
1 001 — 2 000	940	23,7	1 367 571	2,9
2 001 — 5 000	1 111	28,1	3 523 555	7,5
5 001 — 10 000	516	13,1	3 603 974	7,6
10 001 — 20 000	288	7,3	4 061 827	8,6
20 000 and over	303	7,7	34 206 918	72,3
TOTAL	3 952	100,0	47 293 680	100,0

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) "City" corresponds to the head of the "Município".

2.1.1.11 — Number of towns and enumerated population, by groups of inhabitants — 1970

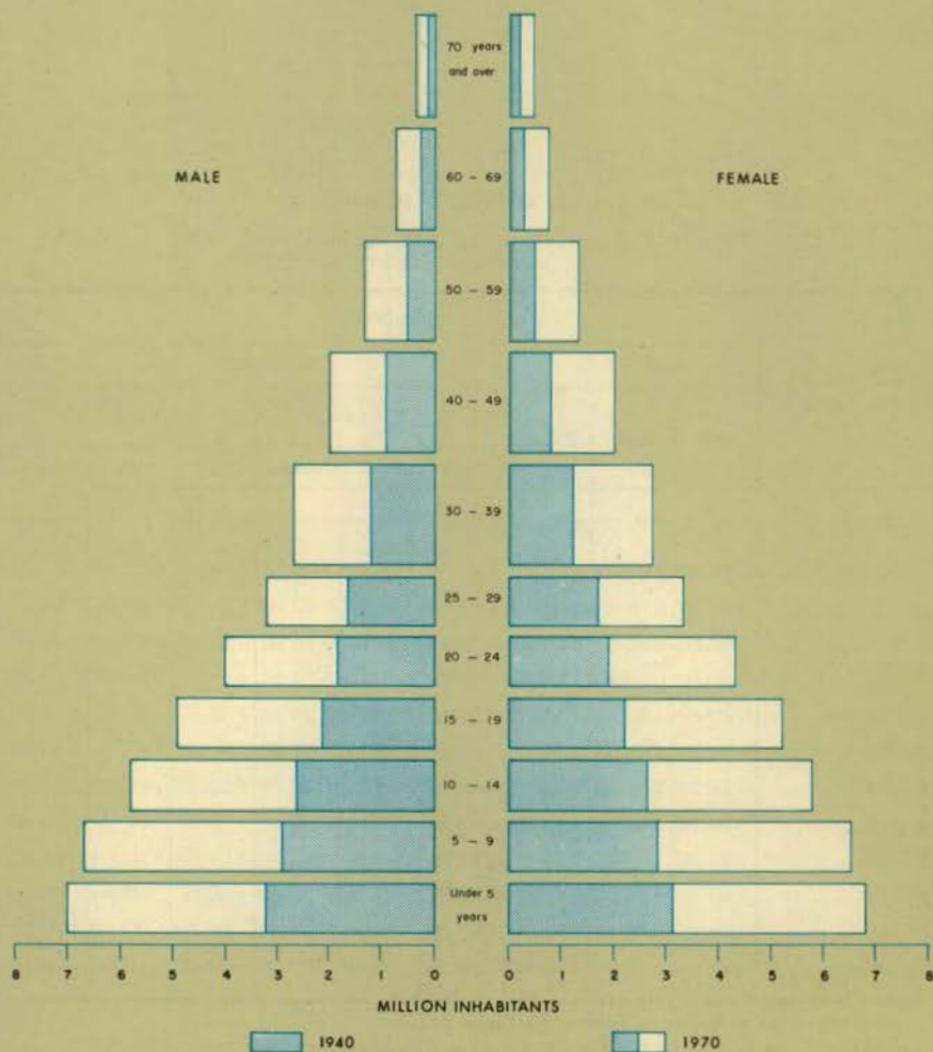
GROUPS OF INHABITANTS	TOWNS (1)		POPULATION	
	Number	Percentage	Number	Percentage
Up to 200	991	25,5	116 901	2,2
201 — 500	1 377	35,5	463 765	8,6
501 — 1 000	917	23,6	638 329	11,9
1 001 — 2 000	376	9,7	503 989	9,4
2 001 — 5 000	130	3,3	375 572	7,0
5 001 — 10 000	30	0,8	206 633	3,7
10 000 and over	61	1,6	3 305 875	57,2
TOTAL	3 882	100,0	5 611 064	100,0

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) "Town" corresponds to the head of the "District".

POPULATION

Population by age groups - 1940 - 1970



2.1.1 — CENSUS RESULTS

2.1.1.12 — Resident population by sex, urban and rural residence and age groups — 1970

AGE GROUPS (in years)	POPULATION								
	TOTALS			RESIDENCE					
	Total	Male	Female	Urban			Rural		
				Total	Male	Female	Total	Male	Female
TOTAL.....	93 204 379	46 330 629	46 873 750	52 098 495	25 214 281	26 884 214	41 105 884	21 116 348	19 989 536
Under 5 years.....	13 898 622	7 019 729	6 878 893	6 837 348	3 449 493	3 387 855	7 061 274	3 570 236	3 491 038
5 - 9	13 301 427	6 730 054	6 571 373	6 926 325	3 489 762	3 436 563	6 375 102	3 240 292	3 134 810
10 - 14	11 665 724	5 849 631	5 816 093	6 356 820	3 130 268	3 226 552	5 308 904	2 719 363	2 589 541
15 - 19	10 203 492	4 933 891	5 269 601	5 748 652	2 667 401	3 081 251	4 454 840	2 266 490	2 188 350
20 - 24	8 422 167	4 063 050	4 359 117	4 859 095	2 272 796	2 586 299	3 563 072	1 790 254	1 772 818
25 - 29	6 546 791	3 202 305	3 344 486	3 805 105	1 795 492	2 009 613	2 741 686	1 406 813	1 334 873
30 - 39	10 782 038	5 317 311	5 464 727	6 509 912	3 120 146	3 389 766	4 272 126	2 197 165	2 074 961
40 - 49	8 094 393	4 087 591	4 006 802	4 898 385	2 395 432	2 502 953	3 196 008	1 692 159	1 503 849
50 - 59	5 354 738	2 703 021	2 651 717	3 180 834	1 525 892	1 654 942	2 173 904	1 177 129	996 775
60 - 69	3 067 143	1 549 608	1 517 535	1 839 512	871 064	968 448	1 227 631	678 544	549 087
70 years and over....	1 693 495	788 946	904 549	1 031 208	444 876	586 332	662 287	344 070	318 217
Age unknown.....	174 349	85 492	88 857	105 299	51 659	53 640	69 050	33 833	35 217

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — Figures derived from a sample of about 1.3 percent of the population and of the living quarters locations.



2.1.1 — CENSUS RESULTS

2.1.1.13 — Population 15 years old and over, by sex, marital status and age groups — 1970

AGE GROUPS (in years)	POPULATION 15 YEARS OLD AND OVER								
	Total (1)	Marital status							
		Single		Married		Separated, legally separated and divorced		Widowed	
		Male	Female	Male	Female	Male	Female	Male	Female
TOTAL	54 338 606	10 317 832	8 905 172	15 418 591	15 383 319	387 860	935 955	571 024	2 357 289
15 - 19	10 203 492	4 855 400	4 573 439	71 416	659 378	4 628	31 205	844	3 705
20 - 24	8 422 167	3 003 132	2 122 783	1 029 710	2 125 347	25 354	93 315	3 160	16 802
25 - 29	6 546 791	1 131 386	781 650	2 023 781	2 417 707	38 265	110 136	7 231	33 834
30 - 39	10 782 038	743 412	653 499	4 453 148	4 412 426	84 578	240 184	33 217	156 104
40 - 49	8 094 393	288 234	334 920	3 633 796	3 097 436	91 467	219 525	70 163	353 505
50 - 59	5 354 738	147 619	212 477	2 362 992	1 725 018	72 295	145 691	117 276	566 384
60 - 69	3 067 143	77 144	124 830	1 274 874	704 371	45 961	69 588	148 304	617 730
70 years and over....	1 693 495	40 098	78 028	536 228	199 738	22 667	23 422	188 982	602 392
Age unknown	174 349	31 407	23 546	32 646	41 898	2 645	2 889	1 847	6 833

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

(1) Including "marital status not reported".

2.1.1 — CENSUS RESULTS

2.1.1.14 — Population 5 years old and over by sex, literacy and age groups — 1970

AGE GROUPS (in years)	POPULATION 5 YEARS OLD AND OVER								
	Totals (1)			Literacy					
				Literate			Illiterate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
5 and over.....	79 305 757	39 310 900	39 994 857	48 821 471	24 849 732	23 971 739	30 424 191	14 425 508	15 998 683
10 and over.....	66 004 330	32 580 846	33 423 484	44 848 108	22 889 036	21 959 072	21 098 428	9 657 476	11 440 952
15 and over.....	54 338 606	26 731 215	27 607 391	36 345 241	18 717 281	17 627 960	17 936 887	7 980 287	9 956 600
5 - 6.....	5 579 784	2 839 232	2 740 552	390 540	193 458	197 081	5 188 264	2 645 320	2 542 944
7 - 9.....	7 721 643	3 890 822	3 830 821	3 582 823	1 767 237	1 815 586	4 137 499	2 122 712	2 014 787
10 - 14.....	11 665 724	5 849 631	5 816 093	8 502 867	4 171 755	4 331 112	3 161 541	1 677 189	1 484 352
15 - 19.....	10 203 492	4 933 891	5 269 601	7 861 107	3 730 383	4 130 724	2 340 342	1 202 409	1 137 933
20 - 24.....	8 422 167	4 063 050	4 359 117	6 231 903	3 047 286	3 184 617	2 187 941	1 014 543	1 173 398
25 - 29.....	6 546 791	3 202 305	3 344 486	4 610 622	2 320 850	2 289 772	1 934 103	879 864	1 054 239
30 - 39.....	10 782 038	5 317 311	5 464 727	7,328 753	3 834 934	3 493 819	3 449 418	1 479 797	1 969 621
40 - 49.....	8 094 393	4 087 591	4 006 802	5 024 994	2 760 183	2 264 811	3 065 771	1 324 532	1 741 239
50 - 59.....	5 354 738	2 703 021	2 651 717	2 962 857	1 691 126	1 271 731	2 389 472	1 010 296	1 379 176
60 - 69.....	3 067 143	1 549 608	1 517 535	1 526 024	893 234	632 790	1 539 226	654 630	884 596
70 and over.....	1 693 495	788 846	904 549	716 639	396 087	320 552	975 852	392 188	583 664
Age unknown.....	174 349	85 492	88 857	82 342	43 198	39 144	54 762	22 028	32 734

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.12.

(1) Including "literacy not reported"

2.1.1 — CENSUS RESULTS

2.1.1.15 — Population 5 years old and over, by educational attainment and age groups — 1970

AGE GROUPS (in years)	POPULATION 5 YEARS OLD AND OVER									
	Total (1)	School level and grade								
		Elementary					Secondary			Higher educa- tion
		Total	Grade 1 (2)	Grade 2	Grade 3	Grades 4,5 and 6	Total	Cycle 1	Cycle 2	
TOTAL	19 496 938	13 906 484	4 398 417	3 114 560	2 858 618	3 534 889	4 989 776	3 853 793	1 135 983	593 009
5 and 6.....	920 003	919 604	753 497	166 107	—	—	—	—	—	—
7 — 9.....	4 902 174	4 901 647	2 207 824	1 490 355	882 448	320 920	—	—	—	—
10 — 14.....	8 066 489	6 323 055	1 160 681	1 189 015	1 606 679	2 366 680	1 742 375	1 742 375	—	—
15 — 19.....	3 675 377	1 314 482	179 056	199 118	283 416	652 892	2 265 100	1 602 953	662 147	94 538
20 — 24.....	1 228 581	247 334	39 992	37 093	48 579	121 670	670 360	331 874	338 486	310 460
25 — 29.....	360 881	78 683	18 834	12 126	15 534	32 189	173 569	94 468	79 101	108 172
30 and over.....	329 361	115 159	36 897	19 717	20 363	38 182	134 345	79 167	55 178	79 358
Age unknown.....	14 072	6 520	1 536	1 028	1 599	2 356	4 027	2 956	1 071	481

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.12.

(1) Including "school level not reported". (2) Including adult education classes.



2.1.1 — CENSUS RESULTS

2.1.1.16 — Population 5 years old and over by years of study and age groups — 1970

AGE GROUPS (in years)	POPULATION 5 YEARS OLD AND OVER							
	Total (1)	Years of study						
		1	2	3	4 and 5	6-9	10-12	13-17
TOTAL	79 305 757	7 109 019	7 922 181	7 615 208	13 243 170	5 635 743	2 464 730	893 415
5 and 6	5 579 784	176 894	—	—	—	—	—	—
7 - 9	7 721 643	1 537 043	899 794	282 024	47 128	—	—	—
10 - 14	11 665 724	1 386 459	1 834 429	1 783 621	1 998 546	1 031 094	—	—
15 - 19	10 203 492	693 064	966 437	1 122 869	2 444 359	1 759 068	510 095	22 915
20 - 24	8 422 167	591 553	804 125	893 908	1 887 858	855 015	672 211	195 009
25 - 29	6 546 791	491 959	654 339	716 059	1 409 725	521 673	374 497	164 149
30 - 39	10 782 038	865 797	1 136 222	1 218 965	2 250 962	679 572	443 909	219 153
40 - 49	8 094 393	642 576	787 193	810 445	1 568 324	421 033	244 339	147 535
50 - 59	5 354 738	408 093	480 090	461 068	906 811	209 271	130 404	77 864
60 - 69	3 067 143	213 252	239 297	218 813	472 559	109 989	58 342	46 156
70 and over	1 693 495	94 046	107 071	94 653	236 777	44 121	28 452	19 513
Age unknown	174 349	8 283	13 184	12 783	20 121	4 907	2 481	1 121

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.12.

(1) Including "no education" and "education not reported".



2.1.1 — CENSUS RESULTS

2.1.1.17 — Population 10 years old and over by years of study and industry — 1970

INDUSTRY	POPULATION 10 YEARS OLD AND OVER							
	Total (1)	Years of study						
		1	2	3	4 and 5	6-9	10-12	13-17
TOTAL	66 004 330	5 395 082	7 022 387	7 333 184	13 196 042	5 635 743	2 464 730	893 415
Economically active	29 545 293	2 326 814	2 941 549	3 111 211	6 306 335	2 197 427	1 405 743	672 347
Agriculture, livestock production, forestry, logging, hunting and fishing.....	13 071 385	1 348 181	1 522 105	1 278 043	1 253 497	105 005	21 251	10 783
Manufacturing and other industrial activities.....	5 263 805	366 513	538 133	684 783	1 691 443	503 252	218 662	112 284
Wholesale and retail trade...	2 623 895	147 501	214 196	283 848	917 897	459 631	198 651	38 700
Services.....	3 260 661	257 933	359 356	431 601	1 001 306	229 071	47 934	11 814
Transportation, communication and storage.....	1 259 067	78 874	128 864	176 136	465 369	153 638	53 565	13 809
Social activities.....	1 415 143	30 107	47 029	72 127	305 393	201 872	450 508	233 330
Government.....	1 154 954	39 393	58 441	86 942	334 512	277 992	161 059	111 533
Other.....	1 496 383	58 312	73 425	97 731	336 918	266 966	254 113	140 094
Not economically active	36 459 037	3 068 268	4 080 838	4 221 973	6 889 707	3 438 316	1 058 987	221 068

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.12.

(1) Including "no education" and "education not reported".

2.1.1 — CENSUS RESULTS

2.1.1.18 — Economically active population 10 years old and over by sex, employment status and industry — 1970

INDUSTRY	ECONOMICALLY ACTIVE POPULATION								
	Total (1)	Employment status							
		Employees		Own account workers		Employers		Unpaid family workers	
		Male	Female	Male	Female	Male	Female	Male	Female
TOTAL	29 545 293	11 830 694	4 359 992	8 995 810	1 091 877	444 063	19 325	2 078 250	676 985
Agriculture, livestock production, forestry, logging, hunting and fishing.....	13 071 385	3 122 686	233 646	6 679 857	456 770	214 962	6 131	1 772 855	582 473
Manufacturing and other industrial activities.....	5 263 805	3 873 585	542 635	630 980	90 437	89 758	2 828	24 960	8 229
Wholesale and retail trade....	2 623 895	1 118 131	340 005	911 657	105 726	110 322	6 299	20 962	10 718
Services.....	3 260 661	606 860	1 911 996	339 097	374 407	15 680	3 242	6 154	3 145
Transportation, communication and storage.....	1 259 067	933 618	55 375	257 732	370	6 012	—	5 657	133
Social activities.....	1 415 143	436 006	914 904	12 384	19 162	1 172	569	15 735	15 211
Government.....	1 154 954	992 841	162 113	—	—	—	—	—	—
Other.....	1 496 383	746 967	199 318	164 103	45 005	6 157	256	231 927	57 076

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — See note to table 2.1.1.12.

(1) Including "employment status not reported".

2.1.1 — CENSUS RESULTS

2.1.1.19 — Population, by sex and residence, Major Regions, States and Territories — 1970

MAJOR REGIONS STATES AND TERRITORIES	RESIDENT POPULATION								
	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
North									
Rorôndônia, Territory....	113 659	61 002	52 657	59 895	30 044	29 851	53 764	30 958	22 806
Acre.....	216 200	112 590	103 610	59 474	28 976	30 498	156 726	83 614	73 112
Amazonas.....	955 394	481 848	473 546	405 562	194 756	210 806	549 832	287 092	262 740
Roraima, Territory.....	40 915	21 073	19 842	17 475	8 664	8 811	23 440	12 409	11 031
Pará.....	2 161 316	1 082 598	1 078 718	1 021 820	486 449	535 371	1 139 496	596 149	543 347
Amapá, Territory.....	114 687	57 613	57 074	62 653	30 499	32 154	52 034	27 114	24 920
North-East									
Maranhão.....	2 997 576	1 496 959	1 500 617	752 465	356 728	395 737	2 245 111	1 140 231	1 104 880
Piauí.....	1 680 954	828 107	852 847	538 197	253 094	285 103	1 142 757	575 013	567 744
Ceará.....	4 366 970	2 132 420	2 234 550	1 781 282	835 129	946 163	2 585 678	1 297 291	1 288 387
Rio Grande do Norte.....	1 552 158	755 343	796 815	738 060	346 957	391 103	814 098	408 386	405 712
Paraíba.....	2 384 615	1 143 874	1 240 741	1 002 926	464 750	538 176	1 381 689	679 124	702 565
Pernambuco.....	5 166 554	2 491 053	2 675 501	2 813 907	1 322 029	1 491 878	2 352 647	1 169 024	1 183 623
Alagoas.....	1 589 605	777 181	812 424	632 397	297 282	335 115	957 208	479 899	477 309
Fernando de Noronha, Ter- ritory.....	1 239	687	552	1 239	687	552	—	—	—
Sergipe.....	901 618	436 532	465 086	415 620	195 239	220 381	485 998	241 293	244 705
Bahia.....	7 508 779	3 667 816	3 840 963	3 090 360	1 456 020	1 634 340	4 418 419	2 211 796	2 206 623
South-East									
Minas Gerais.....	11 497 574	5 714 465	5 783 109	6 063 234	2 913 293	3 149 941	5 434 340	2 801 172	2 633 168
Espírito Santo.....	1 600 305	806 147	794 158	722 485	350 955	371 530	877 820	455 192	422 628
Rio de Janeiro.....	4 746 848	2 380 000	2 366 848	3 656 653	1 807 511	1 849 142	1 090 195	572 489	517 706
Guangabara.....	4 252 009	2 035 494	2 216 515	4 252 009	2 035 494	2 216 515	—	—	—
São Paulo.....	17 775 889	8 931 642	8 844 247	14 275 660	7 075 338	7 200 322	3 500 229	1 856 304	1 643 925
South									
Paraná.....	6 936 743	3 554 282	3 382 461	2 501 660	1 231 026	1 270 634	4 435 083	2 323 256	2 111 827
Santa Catarina.....	2 903 360	1 462 658	1 440 702	1 246 998	610 259	636 739	1 656 362	852 399	803 963
Rio Grande do Sul.....	6 670 382	3 319 761	3 350 621	3 555 854	1 709 069	1 846 785	3 114 528	1 610 692	1 503 836
Central-West									
Mato Grosso.....	1 600 494	833 962	766 532	685 775	338 857	346 918	914 719	495 105	419 614
Goias.....	2 941 107	1 504 376	1 436 731	1 238 190	605 317	632 873	1 702 917	899 059	803 858
Federal District.....	538 351	271 095	267 256	516 896	259 377	257 519	21 455	11 718	9 737
SUMMARY									
North.....	3 602 171	1 816 724	1 785 447	1 626 879	779 388	847 491	1 975 292	1 037 336	937 956
North-East.....	28 150 068	13 729 972	14 420 096	11 766 463	5 527 915	6 238 548	16 383 605	8 202 057	8 181 548
South-East.....	39 872 625	19 867 748	20 004 877	28 970 041	14 182 591	14 787 450	10 902 584	5 685 157	5 217 427
South.....	16 510 485	8 336 701	8 173 784	7 304 512	3 550 354	3 754 158	9 205 973	4 786 347	4 419 626
Central-West.....	5 079 952	2 609 433	2 470 519	2 440 861	1 203 551	1 237 310	2 639 091	1 405 882	1 233 209
BRAZIL.....	93 215 301	46 360 578	46 854 723	52 108 756	25 243 799	26 864 957	41 106 545	21 116 779	19 989 766

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — Preliminary data.



Salvador — BA

METROPOLITAN AREAS

By metropolis we mean a big city, not only in terms of population volume but also in the ability to display a number of diversified and specialized urban functions.

There are nine metropolises in Brazil: Belém, Fortaleza, Recife, Salvador, Belo Horizonte, Rio de Janeiro, São Paulo, Curitiba and Porto Alegre.

The population volume concentrated in them allows a great division of labor and, consequently, the production of a diversity of goods and services, conditions that enable those towns to reach a vast area of influence which, in turn, contributes to the development of its urban functions through the market it represents.

Thus, a metropolitan area would be the whole set of counties or districts economically or socially integrated to a metropolis, mainly because they share with the city an occupational structure and a peculiar form of organization in addition to representing, in the development process, its nearest or remotest expansion area.

The areas stricken by the metropolization process are characterized, at the same time, by a pronounced demographic inflow, a transformation of the occupational structure — which begins to show a noticeable predominance of the secondary and tertiary sectors — and by an integration system that is evident through an alternate movement of people between the different unities, completing the labor market. Usually, the process starts in the urban nucleus with a regional capital function, when it acts alone as a labor market.

This is the reason why the urban growth is, at first, more accentuated in the central city. Afterwards, it spreads itself to the neighbouring districts, which act either as "sleep-in" nuclei to a population that displaces itself to a bigger center to reach the benefits of job opportunities or as areas of industrial expansion, where local favorable conditions give way to the settlement of industrial plants of several types.

As this metropolization process is relatively long, a number of the areas around the nine Brazilian metropolises are at different stages, as they are associated to the national or regional development process.

Considering those differences in stage in the metropolization process, criteria were adopted to define the mentioned process, taking those differences always into account.

The criteria initially adopted with the objective of identifying and delimitating the metropolitan areas are within the three categories below:

1) Demographic

- a) the central city should have, at least, 400,000 inhabitants;
- b) the population density in the district where the central city is located should be 500 inhabitants or more per square kilometer;
- c) population density of the neighbouring municipalities should be, at least, 60 inhabitants per km²; in case the municipality doesn't have such density on the whole, should show it at least in one district adjoining another municipality in the area; and
- d) variation in population during 1950-60 should be, at least, 45% in the municipality or in an adjoining district, as mentioned above.

2) Structural

- a) in order to be included in the area, a municipality should have, at least, 10% of its potentially active population occupied in industrial activities; in the case of the so-called "sleep-in" nuclei, this percentage is replaced by a pendular movement index equal to or greater than 20% of the population which is daily displaced to any point of the area; and
- b) when the value of industrial production is three times that of agricultural.

3) Integrational

- a) a municipality will be included in the research area when at least 10% of its total population commute every day to the municipality where the central city is located or to other municipalities in the area. The

criterion should be applied only to the urban population of the main district or to the district adjoining other municipality of the area; and

- b) when showing a rate of over 80 telephone calls per receiver for the central city, yearly.

São Paulo is the most typical metropolitan area in Brazil, together with Rio de Janeiro. These two cities went through all the characteristic stages in the metropolization process, from the humble functions of a small nucleus to regional capital and, ultimately, national and regional metropolises having São Paulo, notwithstanding, a greater and vaster area of influence than Rio.

The metropolization process in the areas of Belo Horizonte, Salvador, Recife and Porto Alegre is under way but is still feeble, as industrialization was only recently established.

The metropolitan area of Belo Horizonte has its activity limited by the proximity of the two largest metropolises of the Country. Nevertheless, transformations are noticed both in the capital and in the surroundings, supported by industrialization processes, as is the case of Contagem, the nearest expansion area for the metropolis, which has benefited from the localization of industrial plants.

The urban growth of the Salvador metropolitan area occurred mainly after the discovery and exploration of petroleum, which created conditions to accelerate the industrial development, originating Aratu's industrial park, now in the implementation stage.

Regarding Recife, although its urban growth has been superior to employment supply, a widening of the industrial sector has occurred, specially as a result of Federal Government incentives. The installation of new industries surpassed the capital's own urban boundaries, reaching the municipalities of Cabo, São Lourenço da Mata and Paulista. As to Olinda and Jaboatão, they perform the role of "sleep-in" nuclei.

In relation to the metropolitan area of Porto Alegre, the industrial development was intensified in the nucleus periphery, with a resulting population growth. It encompasses a continuous urban chain of counties situated along the BR-116 highway as, for example, Canoas and Esteio, and, at the same time, the urbanized space in São Leopoldo and Novo Hamburgo is widened.

The cities of Curitiba, Belém and Fortaleza, as a result of their urban growth, of recent installation of industries, of the distribution of goods and services and also due to the fact that their areas are integrated by municipalities with a slower rhythm of population growth than the central city, show signs of being on the threshold of the metropolization process.

Curitiba, as a converging point of highways and as a result of the recent industrial spurt, is showing a great demographic increment. Due to its commercial function, Belém is a true market center for the Amazon Region, and only recently had a major development, through the settlement of industries based on local raw materials.

Fortaleza is a market center, chiefly for products intended for export. Its industrial development is related to the utilization of local raw materials.

2.1.1 — CENSUS RESULTS

2.1.1.20 — Population of metropolitan areas, by sex and residence — 1970

METROPOLITAN AREAS	RESIDENT POPULATION								
	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Belém, PA.....	656 351	308 931	347 420	606 188	283 258	322 930	50 163	25 673	24 490
Fortaleza, CE.....	973 452	458 329	515 123	863 925	402 609	461 316	109 527	55 720	53 807
Recife, PE.....	1 699 079	802 439	896 640	1 597 871	750 871	847 000	101 208	51 568	49 640
Salvador, BA.....	1 095 274	517 616	577 658	1 047 218	492 608	554 610	48 056	25 008	23 048
Belo Horizonte, MG.....	1 613 305	777 551	835 754	1 505 310	721 854	783 456	107 995	55 697	52 298
Rio de Janeiro, GB.....	7 094 211	3 452 463	3 641 748	6 846 511	3 322 343	3 524 168	247 700	130 120	117 580
São Paulo, SP.....	8 062 130	3 998 981	4 063 149	7 837 416	3 877 882	3 959 534	224 714	121 099	103 615
Curitiba, PR.....	767 879	375 956	391 923	646 765	313 023	333 742	121 114	62 933	58 181
Porto Alegre, RS.....	1 531 168	741 087	790 081	1 408 402	677 384	731 018	122 766	63 703	59 063

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — Preliminary data.

2.1.1.21 — Metropolitan areas: Population, urban residence, area and density — 1970

METROPOLITAN AREAS	RESIDENT POPULATION			AREA (sq. km)	DENSITY (inhabitants per sq. km)
	Total	Urban			
		Absolute numbers	Percentage		
Belém, PA.....	656 351	606 188	92,36	1 221	537,55
Fortaleza, CE.....	973 452	863 925	88,75	2 383	408,50
Recife, PE.....	1 699 079	1 597 871	94,04	1 460	1 163,75
Salvador, BA.....	1 095 274	1 047 218	95,61	1 041	1 052,14
Belo Horizonte, MG.....	1 613 305	1 505 310	93,31	3 862	417,74
Rio de Janeiro, GB.....	7 094 211	6 846 511	96,51	6 399	1 108,64
São Paulo, SP.....	8 062 130	7 837 416	97,21	5 674	1 420,89
Curitiba, PR.....	767 879	646 765	84,23	5 949	129,08
Porto Alegre, RS.....	1 531 168	1 408 402	91,98	5 806	263,72

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — Preliminary data.

2.2 — VITAL STATISTICS

2.2.1 — RECORDED BIRTHS — 1962-1969

YEARS	RECORDED BIRTHS			
	Total	Live births	Still-births	Born in previous years
1962.....	(1) 3 304 444	1 531 308	52 555	1 628 301
1965.....	3 062 299	1 790 764	43 891	1 227 644
1968.....	2 997 190	1 494 458	58 909	1 443 823
1969.....	2 995 349	1 500 342	54 715	1 440 292

SOURCE — Serviço de Estatística Demográfica, Moral e Política.

(1) Includes 92 280 recorded births with no specification as to live births or still-births.

2.2.2 — MARRIAGES, BY CAPITAL CITIES — 1962-1971

CAPITAL CITIES	MARRIAGES			
	1962	1965	1968	1971
Porto Velho.....	221	144	188	247
Rio Branco.....	239	262	452	618
Manaus.....	1 598	1 570	2 513	(1) 2 371
Boa Vista.....	12	38	150	...
Belém.....	1 003	1 105	2 773	3 083
Macapá.....	305	310	263	570
São Luís.....	1 269	1 267	1 699	585
Teresina.....	934	1 095	1 331	1 468
Fortaleza.....	4 954	4 603	5 319	6 307
Natal.....	940	1 023	1 793	1 959
João Pessoa.....	1 172	1 169	1 660	1 940
Recife.....	6 962	5 838	6 181	6 117
Maceió.....	1 410	1 455	1 824	1 904
Aracaju.....	968	781	989	1 116
Salvador.....	3 826	2 308	5 160	6 112
Belo Horizonte.....	5 495	3 856	5 678	7 738
Vitória.....	593	645	788	1 207
Niterói.....	2 317	2 179	2 297	2 603
Rio de Janeiro.....	15 855	...	20 315	...
São Paulo.....	34 314	33 640	34 860	47 630
Curitiba.....	3 625	3 553	3 645	5 855
Florianópolis.....	777	771	1 057	1 238
Porto Alegre.....	5 467	5 184	5 678	7 091
Cuiabá.....	357	294	323	382
Goiânia.....	1 549	1 877	2 660	3 264
Brasília.....	1 697	2 053	3 250	3 637

SOURCE — Instituto Brasileiro de Estatística.

(1) Data are for ten months only.

2.2.3 — DEATHS

2.2.3.1 — Total and infant deaths; crude mortality rates in selected Capital Cities — 1970

SELECTED CAPITAL CITIES	NUMBER OF DEATHS		MORTALITY RATES	
	All ages	Infants under 1 year of age	Total (Per 1 000 pop.)	Infant (Per 1000 live births)
Manaus.....	2 561	814	10,7	80,4
Belém.....	4 507	1 152	8,3	60,3
São Luis.....	2 078	625	9,7	(1) 82,7
Teresina.....	1 985	708	10,1	79,5
Fortaleza.....	10 654	4 935	14,2	(1) 152,0
Natal.....	3 581	1 605	15,9	(1) 166,1
João Pessoa.....	3 507	1 376	17,5	156,0
Recife.....	13 760	4 498	13,0	205,7
Maceió.....	4 533	1 833	20,8	141,0
Aracaju.....	1 111	161	7,3	32,3
Salvador.....	9 664	2 762	10,9	(1) 88,5
Belo Horizonte.....	13 235	4 011	12,1	(1) 107,7
Vitória.....	2 569	799	21,7	121,8
Niterói.....	3 336	607	11,0	64,0
Rio de Janeiro (2).....	38 006	5 663	9,2	52,9
São Paulo (2).....	48 535	12 106	9,3	83,8
Curitiba.....	6 774	1 791	12,6	(1) 83,9
Porto Alegre.....	7 033	1 286	8,0	(1) 39,1
Cuiabá.....	867	216	10,7	70,2
Goânia.....	2 694	1 117	10,7	(1) 123,1
Brasília.....	3 897	1 583	8,8	(1) 96,3

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

(1) Mortality rates per 1 000 infants under 1 year of age. (2) Data for 1969.

2.2.3 — DEATHS

2.2.3.2 — Maternal and foetal deaths; mortality rates in selected Capital Cities — 1970

SELECTED CAPITAL CITIES	NUMBER OF DEATHS		MORTALITY RATES (Per 1 000 live births)	
	Maternal	Foetal	Maternal	Foetal
Manaus.....	3	333	0,3	32,6
São Luís.....	17	367	(1) 2,3	(1) 48,6
Teresina.....	19	329	2,1	36,9
Fortaleza.....	25	708	(1) 0,8	(1) 21,8
Natal.....	4	...	(1) 0,4	...
João Pessoa.....	13	...	1,5	...
Recife.....	44	1 658	2,0	76,8
Maceió.....	41	442	3,2	34,0
Aracaju.....	3	14	0,6	2,8
Salvador.....	36	...	(1) 1,2	...
Belo Horizonte.....	41	...	(1) 1,1	...
Vitória.....	13	359	2,0	54,8
Niterói.....	5	259	0,5	27,3
Rio de Janeiro (2).....	104	2 299	(1) 1,0	(1) 21,5
São Paulo (2).....	...	3 575	...	24,7
Curitiba.....	17	...	(1) 0,8	...
Porto Alegre.....	14	...	0,4	...
Goiânia.....	12	385	1,3	42,4
Brasília.....	7	529	(1) 0,4	(1) 32,2

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

(1) Mortality rates per 1 000 infants under 1 year of age. (2) Data for 1969.

2.2.4 — LEGAL SEPARATIONS

2.2.4.1 — Legal separations settled by the courts — 1962-1969

a) By nature of legal proceedings

YEARS	LEGAL PROCEEDINGS SETTLED		
	Total	Nature	
		Mutual agreement	Dispute
1962.....	3 368	2 519	849
1965.....	4 749	3 490	1 259
1968.....	6 603	5 014	1 589
1969.....	7 684	5 834	1 850

SOURCE — Serviço de Estatística Demográfica, Moral e Política

b) By age of parties

YEARS	LEGAL PROCEEDINGS SETTLED							
	Age of parties (in years)							
	Husband				Wife			
	Under 31 years	31 and under 45	45 and over	Age unknown	Under 31 years	31 and under 45	45 and over	Age unknown
1962.....	635	(1) 1 671	(2) 719	343	1 188	(1) 1 416	(2) 421	343
1965.....	901	2 207	1 060	581	1 612	1 936	627	574
1968.....	1 250	3 243	1 564	546	2 296	2 771	998	538
1969.....	1 595	3 614	1 741	734	2 816	3 034	1 113	721

SOURCE — Serviço de Estatística Demográfica, Moral e Política.

(1) 31 to 45 years. (2) 46 years and over.

2.2.5 — MIGRATION

2.2.5.1 — Immigrants admitted by country of nationality — 1962-1971

COUNTRY OF NATIONALITY	IMMIGRANTS			
	1962	1965	1968	1971
South America	888	524	597	824
Argentina	256	138	232	276
Bolivia	186	41	49	94
Chile	62	47	43	224
Paraguay	116	57	54	65
Uruguay	172	192	165	110
Other	96	49	54	55
North America	1 089	1 113	1 677	714
Canadá	89	109	140	29
United States	973	979	1 537	675
Mexico	17	25	—	10
Western Europe	23 418	5 873	7 163	2 272
Germany	651	365	723	354
Belgium	289	88	117	63
Spain	4 968	550	743	281
France	367	121	122	34
Italy	1 900	642	738	254
Netherlands	206	192	163	69
Portugal	13 713	3 262	3 917	807
United Kingdom	335	322	240	181
Switzerland	177	130	134	62
Other	812	201	266	167
Eastern Europe	199	168	68	65
Poland	59	49	—	36
U. S. S. R.	13	52	32	6
Other	127	67	36	23
Middle East	1 096	287	746	39
Jordan	63	—	273	14
Lebanon	642	188	399	9
Syria	235	41	74	2
Other	156	58	—	14
Africa	264	73	257	18
Egypt	225	59	257	15
Other	39	14	—	3
Asia	3 822	1 716	1 663	2 415
China	552	402	1 066	226
Korea	1	406	—	1 895
Japan	3 257	903	597	260
Other	12	5	—	34
Oceania	4	12	—	4
Australia	4	12	—	2
Other	—	—	—	2
Other	236	28	32	14
Without nationality	122	44	318	13
TOTAL	31 138	9 838	12 521	6 378

SOURCE — Departamento Nacional de Mão-de-Obra, Divisão de Migração.

2.2.5 — MIGRATION

2.2.5.2 — Entrance of alien tourists by country of provenance — 1962-1971

COUNTRY OF PROVENANCE	NUMBER OF TOURISTS				COUNTRY OF PROVENANCE	NUMBER OF TOURISTS			
	1962	1965	1968	1971 (1)		1962	1965	1968	1971 (1)
South America	62 117	46 739	51 618	104 358	Eastern Europe	289	407	797	626
Argentina.....	28 485	29 406	27 086	48 163	Hungary.....	32	42	110	117
Bolivia.....	1 345	872	1 224	861	Poland.....	143	103	89	190
Chile.....	2 514	3 244	4 635	5 271	Czechoslovakia.....	23	110	70	155
Paraguay.....	4 763	1 626	1 588	5 594	U. S. S. R.....	60	94	248	40
Peru.....	1 311	2 938	2 415	3 018	Other.....	31	58	280	124
Uruguay.....	22 006	6 372	11 229	36 256	Middle East	953	988	1 706	1 619
Other.....	1 693	2 281	3 431	5 195	Saudi Arabia.....	8	121	499	349
Central America	647	754	1 031	1 573	Israel.....	393	422	607	707
Costa Rica.....	47	52	100	279	Lebanon.....	358	236	133	104
Cuba.....	197	107	103	107	Turkey.....	55	85	107	192
El Salvador.....	72	64	69	146	Other.....	139	124	360	267
Guatemala.....	113	99	166	240	Africa	208	207	348	3 443
Nicaragua.....	30	102	127	179	Egypt.....	25	36	83	61
Panama.....	109	140	281	327	Republic of South Africa.....	162	171	259	3 353
Dominican Republic.....	49	136	109	135	Other.....	21	—	6	29
Other.....	30	54	76	160	Asia	678	1 026	1 906	4 202
North America	17 126	26 939	38 125	51 764	China.....	64	179	200	354
Canada.....	824	970	1 910	3 616	Philippines.....	103	71	48	71
United States.....	15 077	24 483	34 473	44 993	India.....	14	52	111	297
Mexico.....	1 225	1 486	1 742	3 155	Japan.....	478	712	1 544	3 410
Western Europe	16 252	25 624	39 972	57 944	Other.....	19	12	3	70
Germany (Federal Republic).....	3 020	4 590	7 839	11 400	Oceania	101	235	474	906
Spain.....	1 720	2 026	3 686	5 771	Australia.....	88	218	436	777
France.....	2 024	3 567	5 410	8 625	New Zealand.....	13	17	38	129
Italy.....	2 645	3 845	5 657	8 114	Not Reported	1 606	45	160	2 645 57
Portugal.....	1 582	3 015	4 776	5 492	TOTAL	99 977	102 964	136 137	290 992
United Kingdom.....	1 661	3 113	4 259	7 538					
Switzerland.....	1 456	1 845	2 188	3 208					
Other.....	2 144	3 623	6 157	7 796					

SOURCE — Empresa Brasileira de Turismo — EMBRATUR.

(1) Preliminary data. (2) Includes entrances of alien tourists arrived by aircraft whose country of provenance was not informed by the States of Amazonas, Pará and São Paulo.

2.2.6 — NATURALIZED ALIENS BY SEX, COUNTRY OF FORMER NATIONALITY, AND STATES AND TERRITORIES OF RESIDENCE — 1965-1971

SPECIFICATION	NATURALIZED ALIENS			
	1965	1968	1970	1971
TOTAL	4 306	3 813	2 864	4 834
Sex				
Male.....	3 061	2 481	1 728	3 052
Female.....	1 245	1 332	1 136	1 782
Country of former nationality				
Germany.....	177	189	107	183
Argentina.....	46	43	41	89
Austria.....	37	55	28	65
China.....	182	208	140	389
Egypt.....	190	188	53	134
Spain.....	175	131	142	278
France.....	37	49	23	46
Greece.....	80	58	56	42
Hungary.....	196	145	55	99
Israel.....	32	57	115	112
Italy.....	265	300	328	449
Yugoslavia.....	141	96	33	93
Japan.....	570	249	215	735
Poland.....	363	290	183	266
Portugal.....	847	709	550	626
Romania.....	236	290	82	157
Syria, Lebanon and Armenia.....	187	252	184	359
Czechoslovakia.....	47	56	20	29
Turkey.....	38	35	23	19
U. S. S. R.....	143	105	46	69
Other.....	317	308	440	595
States and Territories of residence				
Rondônia, Territory.....	—	1	—	1
Acre.....	1	—	2	—
Amazonas.....	3	4	5	5
Roraima, Territory.....	—	—	1	1
Pará.....	14	9	34	18
Amapá, Territory.....	2	—	—	4
Maranhão.....	—	—	4	7
Piauí.....	—	1	—	1
Ceará.....	8	2	6	4
Rio Grande do Norte.....	2	1	—	6
Paraíba.....	2	1	1	6
Pernambuco.....	24	38	14	11
Alagoas.....	2	—	—	2
Sergipe.....	—	1	—	2
Bahia.....	10	15	4	30
Minas Gerais.....	88	97	101	123
Espírito Santo.....	7	7	2	10
Rio de Janeiro.....	196	165	152	140
Guanabara.....	908	811	617	575
São Paulo.....	2 209	1 937	1 333	2 911
Paraná.....	516	416	274	510
Santa Catarina.....	21	18	18	28
Rio Grande do Sul.....	176	202	243	368
Mato Grosso.....	16	12	7	15
Goiás.....	20	36	21	23
Federal District.....	81	39	25	33

SOURCE — Serviço de Estatística Demográfica, Moral e Política.



NATIONAL ECONOMY

THE BRAZILIAN ECONOMY

In 1971, the Brazilian Economy showed an exceptional performance, demonstrated by a rate of growth of the Gross Domestic Product of approximately 11.3% — the highest rate of overall expansion since the postwar period. This result, although extreme, is a natural trend; it began in 1968, and since then the Brazilian productive effort has been largely rewarded by high rates of growth. In fact, between 1968 and 1970 the physical volume of domestic production increased by 9.3%, 9.0% and 9.5%, respectively.

The structural and institutional transformations observed in the economy, coupled with rational decisions compensating for conjuncture fluctuations, allow the expectation of favorable future prospects of sustained growth. In case the average pace of expansion of the last four years is to continue, the average per capita income of Brazil will be the equivalent to US\$750 by the end of the decade, a very remarkable level as compared to other developing nations.

The success obtained in 1971 resulted from a growth of 11.4% in agriculture, 11.2% in industry, 8.4% in transportation, and 12.8% in trade.

It should be noticed that a substantial part of the production increase was due to an exceptional coffee crop (about 110% above the 1970 crop), which could lead to a certain distortion in the optimistic analysis of the behavior of the country's economy if, on the other hand, a self-sustained growth of industry and an expansionist trend in the service sector had not also occurred lately.

Indeed, 1971 was a year characterized by a climate of euphoria in the economic activity as a whole, for there was a greater absorption of labor, the wage level of those employed was raised, new fronts were open in foreign trade and, subsequently, the consumer's market was enlarged with an increase in sales and the realization, on the part of the companies, of new capital investments.

In addition to the greater intensity of private investments, other factors determining the expansion of goods and services in that year were, for example, the great amount of Government investment, particularly in the areas of transportation and building, the high level of exports and the flow of foreign capital.

As regards the other major objective of the economic policy, that is, the gradual reduction of the inflationary rhythm, the results appear to be less satisfactory, in spite of the Government's efforts. In 1971, the general price

index climbed 19.8% as compared to 1970, when it didn't surpass 19.2% (in 1969 it was equal to 20.2%).

Apparently, the monetary measures aimed at fighting inflation, although considerably efficient in the first few years of implementation, are now insufficient to lower to the desired level the expansionist rhythm of prices without jeopardizing the economic development. In fact, the unfavorable crops of some farm products contributed to the price increases in 1971 which, however, were mainly caused by structural inefficiencies such as a faulty distribution system. That explains why the modernization of this system is included amongst the main concerns of the Government in trying to make the economic growth compatible with the gradual elimination of the inflationary rate.

Taking into account the needs of liquidity of the economic system under the impact of high rates of growth, the results achieved in 1971 in the credit and monetary areas could be considered remarkable. The expansion of the means of payment was around 31% (against 26.7% in 1970), compatible with the evolution of the Gross Domestic Product and the general average of price increase in the year. Loans of banks to the private sector, after allowance for the inflationary rate, evolved more rapidly than the real production and at a faster pace, as compared to the preceding year: 45.5% in 1971 and 34.4% in 1970. During the year the definitive implementation of the open market was consummated by the intensification of operations through Treasury Bills (LTN), which successfully replaced, in that market, the National Treasury Purchasing Power Clause Bonds (ORTN). The flexibility introduced into the open market by the LTN allowed for a greater control over the means of payment and made it possible to maintain the liquidity of the economy at an adequate level.

In the area of financial management of the Treasury, the previous trend towards the reduction of the cash deficit still remained. It represented 0.4% of the Gross Domestic Product in 1970, decreased to 0.3% in 1971 and was totally financed through the placement of LTNs in the open market. Treasury revenues amounted to Cr\$26,980 million, that is, over 40% the total obtained in the previous year. Expenditures, on the other hand, increased 39%, totalling Cr\$27,652 million. Of the total collected taxes 72% represented resources to the direct administration. The Tax on Manufactures (IPI) continued to be the main source of revenue, with a share of 40%, followed by Income Tax, with approximately 24%, and the Single Tax on Fuels and Lubricants, with nearly 14%.

In the area of the securities market, several developments in 1971 are worth mentioning. The corporate capital issues expanded 47%, amounting to about Cr\$32 billion, of which Cr\$14 billion represented an increase of capital through cash subscriptions. These subscriptions evolved more than 150%, as compared to the 1970 total. In the stock market, a variation of 83% for the entire year was registered in the SN average, which means a very favorable result, nonetheless inferior to that occurred in 1970 (about 95%). Incidentally, the stock exchange behaved during the year according to two different trends: one of increasing quotations and high volume of trades, which lasted through the first semester, a phase where the SN average showed a rise of 170%, reaching the peak of 113,537 points in June 14; another, from then on, characterized by successive downfalls in quotations and trade, with the SN average dropping, by the end of December, to 77,202 points. The euphoria of the market, in the first semester, encouraged the expansion of registrations of stocks to public offer in the Central Bank which, from Cr\$322 million in December, 1970 climbed to nearly Cr\$1.9 billion by the end of December, 1971. The issue of

new stocks in a number well above the market capacity was one of the factors which influenced most the decline observed in the second semester of the year. Still on the subject of the stock market, it is noticeable that the demand for fixed income securities had also a significant expansion. Exchange acceptances of investment companies surpassed by 55% the total amount of 1970, and the fixed term deposits of investment banks experienced an increase of 90%. In the sector of the Housing Financial System(SFH), the National Housing Bank (BNH) showed an increase of 60% in assets. The Time of Service Guarantee Fund(FGTS) provided BNH with liquid resources (gross collection minus compensations) of Cr\$1,990 million, 31% above the 1970 level. The savings deposits of Real Estate Credit Companies(SCI) in the Savings and Loans Associations and the Savings Banks increased, altogether, approximately 80% and the liquid funds provided by the placement of Real Estate Bills (to the public and BNH) had an increase of about 32% in 1971.

In the foreign trade area, the expansionist trend was due to continue, in response to several Government incentives. Among the major steps taken by the Government to stimulate exports, specially those of manufactures, are credit and fiscal benefits, successive elimination of red tape, maintenance of flexible exchange rates and the contracting of substantial foreign funds to help finance the economic growth, all of them contributing to the results obtained. Exports grew, although at a slower pace than in previous years, reaching an expressive total of US\$2.9 billion — being noteworthy the fact that exports of manufactures had a relatively accelerated growth (24% above the 1970 level) in the total amount of US\$822 million. Imports showed a noticeable increase, too, reaching around US\$3.3 billion. Although exports have been less than the expected, the system of flexible exchange rates favored the competitive capacity of the economy, in terms of international pricing, and stimulated the inflow and permanence of foreign capital.

In 1971, a law concerning the First National Plan of Economic and Social Development for the years 1972-74 was passed. The basic targets expressed in the plan, once accomplished, will allow Brazil, in addition to being listed among the ten nations of the Western World with the higher overall level of Gross Domestic Product, to reach the eighth place, instead of ninth, in that category, and to surpass the level of 500 US dollars per capita income in 1974. In order to fulfill those objectives, steps will be taken towards: a more effective Government action, in direct administration, authorities or Government corporations; a more intensive mobilization of the national financial system and the stock market; implementation of the national technological policy; a better utilization of human resources; realization of great investments in infra-structure and basic industries; a policy of social openness, to assure the participation of all social classes in the benefits of development; regional strategy to make national integration effective and maintenance of foreign economic strategy.

As to the institutional framework of last year, the regulation of the Social Integration Plan(PIS) and the Government Officials Patrimony Formation Program (PASEP), governmental instruments established in 1970 to secure a better personal division of the benefits of economic growth are worth mentioning. Another important realization was the establishment of the Agricultural Worker Assistance Program(PRORURAL), aimed at extending the advantages of social security and medical assistance to agriculture. Two relevant events in the area of regional development should be mentioned: the creation of PROTERRA, aimed at developing the agricultural sector in the Northeastern Region and PRODOESTE, created to influence the Central Western Region, namely, South of Mato Grosso, Goiás and the Federal District.

3.1 — FORESTRY

3.1.1 — FOREST PRODUCTS

3.1.1.1 — "Quantum" index numbers — 1962-1970

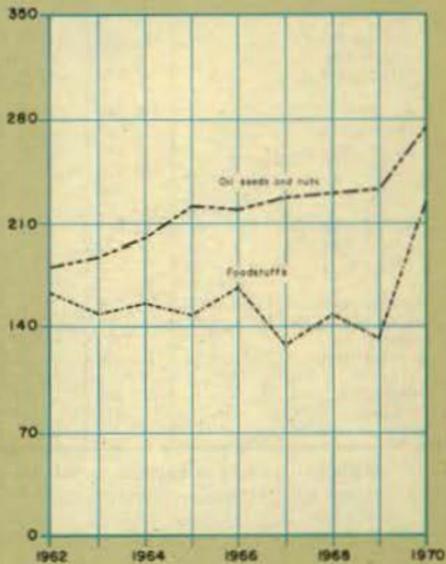
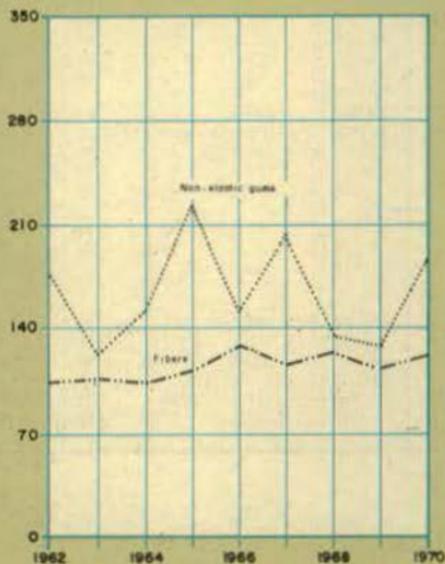
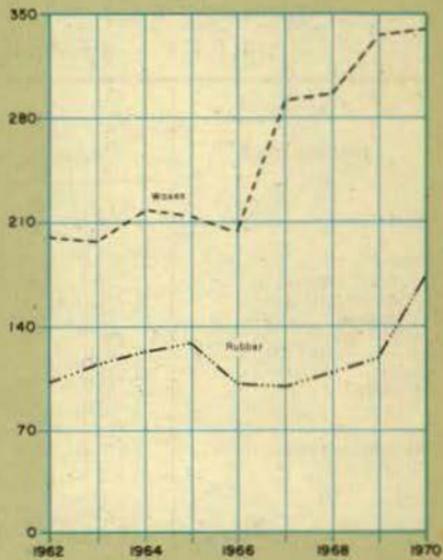
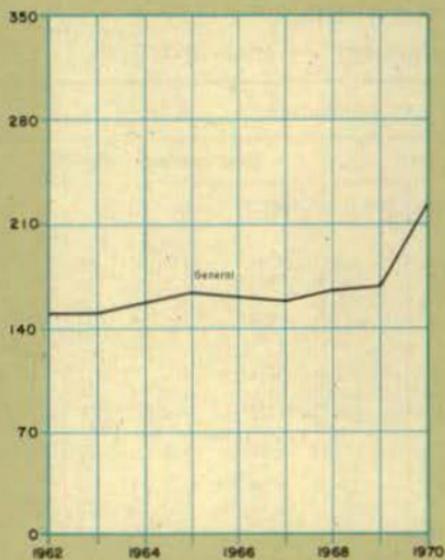
YEARS	"QUANTUM" INDEX NUMBERS (Laspeyres criterion)							
	General index numbers (1955=100)	Specific index numbers (1955=100)						
		Rubber	Non-elastic vegetable gums	Waxes	Fibers	Oilseeds and nuts	Food	Tanning, aromatic and toxic products
1962.....	150,1	104,5	177,9	202,9	105,3	180,6	163,4	447,0
1965.....	164,0	130,4	221,7	213,2	114,9	224,4	147,5	165,1
1968.....	165,9	109,1	136,0	295,5	124,9	230,5	147,1	112,2
1970.....	224,4	176,9	186,2	339,2	123,5	279,7	235,0	98,7

SOURCE — Instituto Brasileiro de Estatística

NOTE — 1. Computation of the synthetic index numbers covered the 20 following products: rubber — hevea, latex, panama rubber, mangabeira, and manissoba; non — elastic vegetable gums — balata, massaranduba, sorva and coquirana; waxes — carnauba and licuri waxes; fibers — caroa, guaxima and mallows, piassava and tucum; oilseeds and nuts — ba-bassu nuts, licuri nuts, murumuru nuts, oiticica beans, and tucum nuts; food — cashew nuts, Brazil nuts, maté and guarana; tanning, aromatic and toxic products — angico bark, ipecac and timbo roots.

FORESTRY

"Quantum" indexes 1955 = 100



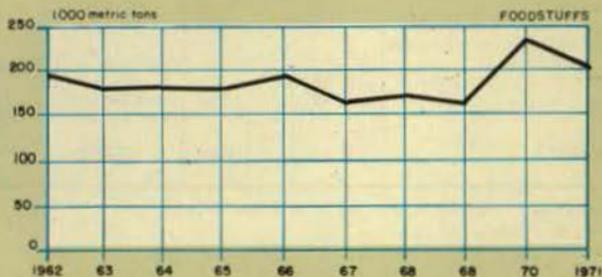
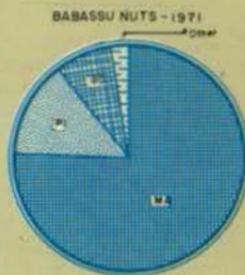
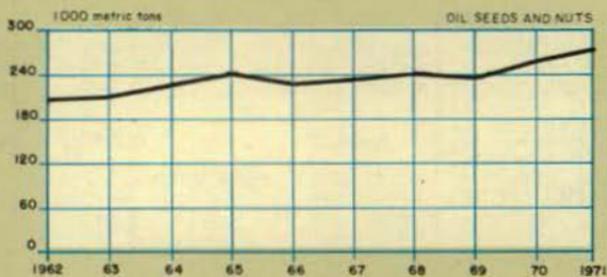
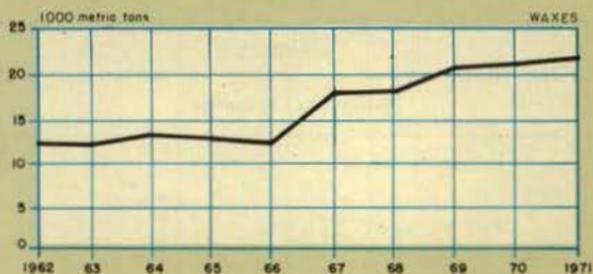
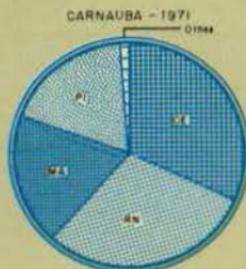
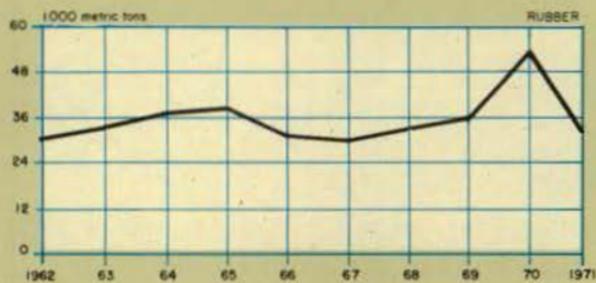
3.1.1 — FOREST PRODUCTS
3.1.1.2 — Production summary — 1962-1971

SPECIFICATION	PRODUCTION							
	Quantities (Metric tons)				Index numbers (1961=100)			
	1962	1965	1968	1971 (1)	1962	1965	1968	1971 (1)
Rubber	30 814	38 458	32 184	32 973	91	114	95	98
Panama rubber.....	751	923	459	123	112	138	69	18
Hevea.....	29 700	37 315	31 666	32 798	92	115	98	101
Mangabeira.....	81	83	17	27	159	163	33	53
Manissoba.....	282	137	42	25	41	20	6	4
Waxes	12 294	12 914	17 899	21 804	106	111	154	188
Carnauba.....	12 102	12 729	17 658	21 636	106	111	154	189
Licuri.....	192	185	241	168	122	118	154	107
Non-elastic gums	5 596	6 974	4 278	14 807	88	109	67	229
Balata.....	1 013	1 415	468	6 604	81	113	37	527
Massaranduba.....	758	1 064	405	938	96	138	52	121
Sorva.....	3 615	4 207	3 351	6 966	86	100	79	165
Coquirana.....	210	288	54	99	147	201	38	69
Fibers	34 929	37 163	38 945	43 789	102	108	113	127
Caroa.....	4 349	2 549	1 088	4 153	112	85	28	107
Guaxima and mallows.....	13 152	15 701	15 249	11 730	100	120	118	89
Piassava.....	17 368	18 845	22 528	22 576	101	109	131	131
Tucum.....	60	68	80	90	94	106	125	141
Butia.....	...	...	...	5 240	...	...	...	(2) 106
Oil seeds and nuts	200 509	238 659	235 223	271 548	104	124	122	141
Babassu nuts.....	136 723	170 809	176 737	193 346	116	145	150	165
Licuri nuts.....	4 776	7 588	8 985	20 799	97	154	183	423
Oiticica beans.....	51 682	52 334	42 179	49 974	82	83	67	80
Tucum nuts.....	6 193	6 836	6 414	6 982	103	114	107	116
Murumuru nuts.....	1 135	1 092	908	447	70	67	56	27
Food	193 765	178 112	172 112	201 708	100	92	89	104
Cashew nuts.....	11 987	13 789	23 683	28 602	124	143	245	295
Brazil nuts.....	45 442	40 798	50 977	67 005	88	79	99	130
Maté.....	136 026	123 325	97 272	105 897	103	94	74	80
Guarana.....	310	200	180	204	168	108	97	110
Tanning products	24 617	10 225	6 696	9 712	87	36	24	34
Angico bark.....	24 617	10 225	6 696	8 973	87	36	24	32
Mangrove.....	...	...	...	739	...	...	...	(2) 43
Aromatic, medicinal and toxic products	345	143	92	92	199	83	53	48
Ipecac roots.....	261	93	64	71	326	116	80	89
Timbo roots.....	84	50	28	21	90	54	30	23
Other	842	511	410	257	154	93	75	47
Kapok.....	842	511	410	257	154	93	75	47

SOURCE — Escritório de Estatística do Ministério da Agricultura

(1) Data subject to revision. (2) 1970=100

FORESTRY



3.1.1 — FOREST PRODUCTS

3.1.1.3 — Quantities produced, by States and Territories — 1971

STATES AND TERRITORIES	QUANTITIES		STATES AND TERRITORIES	QUANTITIES	
	Metric tons	Percentage		Metric tons	Percentage
RUBBER (Hevea)			BABASSU NUTS		
Acre.....	10 728	32,7	Maranhão.....	146 689	75,9
Amazonas.....	8 641	26,4	Piauí.....	27 118	14,0
Pará.....	4 424	13,5	Goiás.....	15 207	7,9
Rorondônia, Territory.....	4 244	12,9	Other.....	4 332	2,2
Bahia.....	3 860	11,8	BRAZIL.....	193 346	100,0
Other.....	901	2,7			
BRAZIL.....	32 798	100,0	GITICICA BEANS		
CARNAUBA WAX			Ceará.....	30 477	61,0
Ceará.....	6 923	32,0	Paraíba.....	10 217	20,4
Rio Grande do Norte.....	6 521	30,1	Rio Grande do Norte.....	8 570	17,2
Maranhão.....	4 024	18,6	Other.....	710	1,4
Piauí.....	3 957	18,3	BRAZIL.....	49 974	100,0
Other.....	211	1,0			
BRAZIL.....	21 636	100,0	BRAZIL NUTS		
GUAXIMA AND MALLOWES			Amazonas.....	30 222	45,1
Pará.....	9 522	81,2	Pará.....	18 152	27,1
Other.....	2 208	18,8	Acre.....	14 076	21,0
BRAZIL.....	11 730	100,0	Other.....	4 555	6,8
PIASSAVA			BRAZIL.....	67 005	100,0
Bahia.....	20 621	91,3			
Other.....	1 955	8,7	MATÊ		
BRAZIL.....	22 576	100,0	Rio Grande do SUL.....	50 681	47,9
			Paraná.....	30 664	29,0
			Santa Catarina.....	24 430	23,1
			Mato Grosso.....	122	0,0
			BRAZIL.....	105 897	100,0

SOURCE — Escritório de Estatística do Ministério da Agricultura.

NOTE — Data subject to revision.



3.2 — FISHING

3.2.1 — FISH CATCHES

3.2.1.1 — "Quantum" index numbers — 1962-1970

YEARS	"QUANTUM" INDEX NUMBERS (LASPEYRES CRITERION) (1955=100)	YEARS	"QUANTUM" INDEX NUMBERS (LASPEYRES CRITERION) (1955=100)
1962.....	215,8	1968.....	269,0
1965.....	227,7	1970.....	280,5

SOURCE — Instituto Brasileiro de Estatística.

NOTE — Computation of the synthetic index numbers included the following products: fish, crustacea, molluscs, water mammals, chelonians and other aquatic catch.

3.2.1.2 — Summary — 1962-1970

YEARS	FISH CATCHES					
	Fish	Crustacea	Molluscs	Water mammals	Chelonians	Not specified
QUANTITIES (metric tons)						
1962.....	329 652	48 711	2 545	22 822	695	10 115
1965.....	357 569	57 155	2 682	3 538	590	755
1968.....	414 529	70 814	4 775	8 461	237	1 571
1970.....	449 322	64 044	3 545	8 074	473	834
INDEX NUMBERS (1961=100)						
1962.....	141	127	106	47	125	155
1965.....	153	149	112	7	106	12
1968.....	177	185	199	17	42	24
1970.....	192	167	148	17	85	13

SOURCE — Escritório de Estatística do Ministério da Agricultura.

AGRICULTURE

The number of farms throughout the country is now close on 5 million. The results of the latest of Agriculture Census show that the number of farms have risen from 3.3 million in 1960 to 4.9 million in 1970. This growth is due rather to the subdivision of existing properties than to the appearance of new farms in the empty spaces, since the settlement of large areas in the south was prior to 1940 and the process of occupying

Amazonia did not get under way until after 1970. The personnel occupied on these farms amounts to 18.3 million, which means that farm labor absorbs 44.5% of the rural population of the country, as opposed to 15.5 million so engaged when the General Census was taken in 1960.

Within this setting, where the figures for crop and livestock farms and farm labor rose to high levels in all the states, São Paulo, which has taken the lead in the industrial upsurge, is an exception. In this state, where only 19.5% of the population live in the rural zone, the number of farms has remained practically stationary in the last ten years, while the personnel engaged in farm work dropped from 1.7 million to 1.5 million during the period. These data, together with a high index of mechanization on the farm, for more than one-third of the tractors used in agriculture throughout the country are owned by São Paulo, is one of the main characteristics of a developed area. To this should be added the fact that São Paulo stands high in the list of states that are traditionally the leading producers of cotton, peanuts, rice, potatoes, coffee, sugarcane, beans, oranges and corn (maize).

Brazil is one of the five largest cattle-raising countries in the world. More than half the herd is distributed over 4 states: Minas Gerais — 15.1 million head; Rio Grande do Sul — 12.3 million; Mato Grosso — 9.4 million; São Paulo — 9.1 million. The results of the 1970 Crop and Livestock Census show that, in 10 years, Minas livestock increased by 3.1 million head, Rio Grande by 3.5 million, Mato Grosso by 3.7 million and São Paulo by 2 million. In those ten years, the entire Brazilian herd had risen from 55.8 to 78.3 million head. Among Brazilian cattle, the zebu breeds predominate and, though the raising of European breeds is spread fairly widely over the states in the central region of the country, it is only in Rio Grande do Sul, Paraná and Santa Catarina that such breeds are very clearly in evidence.

Brazil's herd of swine, totalling 31.5 million head, figures among the largest in the world. About half the national herd is concentrated in the Southern Region: Paraná — 6.2 million head; Rio Grande do Sul — 5.9 million; Santa Catarina — 3.1 million. Between the 1960 and 1970 Censuses, the Brazilian swine herd increased by 6.1 million head.

Poultry-farming has expanded greatly in the last ten years. Grouped in cooperatives, the farmers have been very successful in operating factories for making balanced rations, cold storage slaughterhouses and large specialized chicken farms. In spite of the growth in domestic consumption of eggs and poultry, this has enabled the Brazilian flock of chickens to be increased in the 1960/70 period close on 100 million head.

With the exception of crops like cocoa in Bahia, pepper in Pará, sisal in Bahia, Paraíba and Rio Grande do Norte, and jute in Pará and Amazonas, the greater volume of farm produce comes from the states belonging to the Southern and Southeastern Regions of Brazil.

3.3 — AGRICULTURE

3.3.1 — CENSUS RESULTS

3.3.1.1 — Number of establishments, employment, tractors and livestock, by Major Regions — 1920-1970

YEARS	NUMBER OF ESTABLISHMENTS	EMPLOYMENT	TRACTORS	LIVESTOCK (Number of heads)		
				Cattle	Pigs	Chickens
NORTH						
1920.....	33 023	350 520	7	869 109	265 599	2 426 819
1940.....	81 079	380 188	26	999 041	372 265	2 918 832
1950.....	78 227	326 340	61	1 020 305	377 534	2 240 191
1960.....	138 241	544 028	430	1 234 882	537 347	4 037 476
1970.....	261 692	982 225	1 013	1 695 873	912 834	7 367 005
NORTH-EAST						
1920.....	162 023	2 462 973	72	7 365 493	1 842 443	10 619 717
1940.....	737 604	4 571 862	250	7 655 206	3 889 770	14 659 576
1950.....	844 510	4 327 018	451	9 632 438	6 019 404	18 323 088
1960.....	1 408 114	6 659 175	3 130	11 555 757	5 281 688	30 651 158
1970.....	2 213 050	7 836 224	6 033	13 730 374	7 068 164	36 112 245
SOUTH-EAST						
1920.....	243 304	2 604 464	619	10 540 823	8 707 396	22 148 955
1940.....	636 388	4 523 949	1 835	11 962 442	6 006 422	26 511 437
1950.....	581 531	3 999 860	5 155	16 803 492	7 408 144	31 729 999
1960.....	824 407	4 548 331	34 135	21 039 830	6 494 409	49 975 381
1970.....	930 775	4 217 097	79 564	26 726 147	5 821 592	89 655 648
SOUTH						
1920.....	189 685	723 637	1 006	9 643 463	4 759 273	12 970 723
1940.....	383 588	1 491 704	1 240	8 664 147	5 770 714	12 551 679
1950.....	480 623	1 949 923	2 566	10 327 785	7 843 918	18 214 295
1960.....	807 615	3 194 031	21 456	11 678 003	11 578 962	40 078 686
1970.....	1 274 589	4 256 615	60 533	18 925 039	15 176 426	68 153 524
CENTRAL-WEST						
1920.....	20 118	170 729	2	5 852 436	593 838	1 600 044
1940.....	65 930	375 712	28	5 111 583	800 021	2 632 743
1950.....	79 751	385 613	139	6 816 139	1 321 814	3 412 701
1960.....	159 392	688 420	2 194	10 532 835	1 687 445	7 532 297
1970.....	253 261	957 108	9 449	17 180 593	2 522 677	12 172 107
BRAZIL						
1920.....	648 153	6 312 323	1 706	34 271 324	16 168 549	49 766 258
1940.....	1 904 689	11 343 415	3 379	34 392 419	16 839 192	59 274 267
1950.....	2 064 642	10 988 754	8 372	44 600 159	22 970 814	73 920 274
1960.....	3 337 769	15 633 985	61 345	56 041 307	25 579 851	132 274 998
1970.....	4 933 367	18 249 269	156 592	78 258 026	31 501 693	213 460 529

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

3.3.1 — CENSUS RESULTS

3.3.1.2 — Number of establishments, employment, tractors and livestock, by States and Territories — 1970

STATES AND TERRITORIES	NUMBER OF ESTABLISHMENTS	EMPLOYMENT	TRACTORS	LIVESTOCK (Number of heads)		
				Cattle	Pigs	Chickens
Rorônia, Territory.....	7 090	21 692	40	23 133	13 316	312 571
Acre.....	23 100	63 412	11	72 455	102 803	886 543
Amazonas.....	85 268	286 670	57	260 553	139 866	1 965 276
Roraima, Territory.....	1 959	8 493	4	235 608	21 052	159 785
Pará.....	141 959	591 252	866	1 036 726	603 180	3 947 229
Amapá, Territory.....	2 316	10 706	35	67 398	32 617	95 601
Maranhão.....	396 962	1 205 064	122	1 464 944	2 752 095	9 015 100
Piauí.....	218 011	520 505	167	1 193 382	1 193 028	3 277 812
Ceará.....	246 179	1 085 186	577	1 704 396	643 473	4 996 664
Rio Grande do Norte.....	104 397	312 928	488	602 731	61 156	847 973
Paraíba.....	170 174	614 034	687	863 155	153 425	2 011 341
Pernambuco.....	331 955	1 154 742	1 328	1 183 353	289 409	5 506 237
Alagoas.....	105 408	460 439	924	479 783	50 240	933 023
Sergipe.....	95 931	274 371	374	613 763	30 870	796 979
Bahia.....	544 033	2 208 955	1 366	5 624 867	1 894 468	8 727 116
Minas Gerais.....	455 007	2 127 335	9 245	15 080 399	3 291 527	22 924 152
Espírito Santo.....	70 905	308 787	984	1 380 401	491 988	4 209 562
Rio de Janeiro.....	72 120	253 626	3 479	1 169 976	156 302	9 676 084
Guanabara.....	5 048	14 385	125	13 817	13 432	2 255 405
São Paulo.....	327 695	1 512 964	65 731	9 081 554	1 868 343	50 590 445
Paraná.....	554 836	2 015 151	17 190	4 680 737	6 192 310	26 182 902
Santa Catarina.....	207 331	774 012	5 026	1 955 779	3 131 984	12 727 992
Rio Grande do Sul.....	512 422	1 467 452	38 317	12 288 523	5 852 132	29 242 630
Mato Grosso.....	106 191	380 180	3 926	9 393 896	818 187	4 521 879
Goiás.....	145 157	569 374	5 265	7 756 328	1 690 384	6 982 454
Brasília, Federal District.....	1 913	7 554	258	30 369	14 106	667 774
BRAZIL.....	4 933 367	18 249 269	156 592	78 258 026	31 501 693	213 460 529

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.



Paddy crop

3.3.2 — AGRICULTURE

3.3.2.1 — "Quantum" index numbers — 1962-1969

YEARS	QUANTUM INDEX NUMBERS (Laspeyres criterion)								
	General index numbers (1955=100)	Specific index numbers (1955=100)							
		Cereals	Roots and tubers	Truck vegetables	Leguminous vegetables	Fruits	Agricultural crops for industrial purposes	Beverages (coffee)	Other products
1962.....	148,6	131,4	131,9	168,7	122,5	141,4	146,4	177,1	162,0
1965.....	184,5	167,3	159,1	190,3	165,6	171,0	168,4	223,3	281,2
1968.....	154,5	165,3	192,0	241,9	178,3	195,1	171,9	103,0	394,5
1969.....	164,0	169,9	192,8	228,8	175,2	205,2	178,5	124,9	396,7

SOURCE — Instituto Brasileiro de Estatística.

NOTE — Computation of the synthetic index numbers included the following 46 products: cereals — rice, oats, rye, barley, corn, maize and wheat; roots and tuber — sweet potato, potato, manioc; truck vegetables — garlic, onion, and tomato; leguminous vegetables—broad beans, black beans (haricot), and soybeans; fruits — avocado, pineapple, banana, caki, fig, orange, lemon, apple, mango, quince, water melon, melon, pear, peach, tangerine, and grape; agricultural crops for industrial purposes — cottonseed, peanut in the shell, cocoa beans, sugar cane, coconut, tobacco leaf, jute, castor beans, sisal, and tung; beverages — coffee beans; other products — black pepper, alfafa, chestnuts and walnuts.

3.3.2 — AGRICULTURE

3.3.2.2 — Permanent crops — 1962-1969

a) Area

MAIN CROPS	HARVESTED AREA (ha)			
	1962 (1)	1965 (1)	1968	1969
Banana.....	208 699	238 260	268 476	273 113
Cocoa.....	464 762	482 317	432 691	437 637
Coffee beans.....	4 420 315	3 511 079	2 622 885	2 570 899
Coconuts.....	78 811	87 680	114 439	115 992
Orange.....	125 823	150 257	173 170	183 057
Pepper, black.....	2 980	4 426	5 567	5 453
Sisal.....	160 240	250 020	344 580	310 679

SOURCES — Escritório de Estatística do Ministério da Agricultura and Instituto Brasileiro do Café

(1) Area under cultivation.

b) Quantities

MAIN CROPS	QUANTITIES (Metric tons)			
	1962	1965	1968	1969
Banana (1).....	300 660	348 522	421 857	463 324
Cocoa.....	140 363	160 823	149 338	211 162
Coffee beans.....	3 637 979	3 663 587	2 115 404	2 567 014
Coconuts (2).....	429 067	529 402	690 504	656 007
Orange (2).....	9 254 518	11 427 622	13 586 728	14 484 057
Pepper, black.....	3 753	8 943	14 094	14 031
Sisal.....	174 255	241 985	328 276	311 110

SOURCES — Escritório de Estatística do Ministério da Agricultura and Instituto Brasileiro do Café

(1) 1 000 bunches. (2) 1 000 fruits.



Pepper, black

3.3.2 — AGRICULTURE

3.3.2.3 — Temporary crops — 1962-1969

a) Area

MAIN CROPS	HARVESTED AREA (ha)			
	1962 (1)	1965 (1)	1968	1969
Unginned cotton.....	3 457 857	4 004 444	3 902 238	4 194 676
Peanuts, shell.....	476 461	540 627	606 434	613 332
Rice (paddy).....	3 349 810	4 618 898	4 458 952	4 620 699
Potato.....	196 188	202 257	226 728	221 049
Sugar cane.....	1 466 619	1 705 081	1 686 727	1 672 101
Beans, black (haricot).....	2 716 257	3 272 525	3 663 301	3 633 264
Tobacco, leaf.....	232 297	273 849	275 654	258 128
Jute.....	40 688	47 269	48 424	45 952
Castor beans.....	284 180	394 146	377 048	377 636
Manioc.....	1 476 206	1 749 960	1 998 197	2 029 373
Corn (maize).....	7 347 881	8 771 318	9 584 754	9 653 757
Soybeans.....	313 640	431 834	721 913	906 073
Tomato.....	34 737	39 648	44 216	40 601
Wheat.....	743 458	766 640	970 128	1 407 115

SOURCE — Escritório de Estatística do Ministério da Agricultura.

(1) Area under cultivation.

3.3.2 — AGRICULTURE

3.3.2.3 — Temporary crops — 1962-1969

b) Quantities

MAIN CROPS	QUANTITIES (Metric tons)			
	1962	1965	1968	1969
Unginned cotton.....	1 902 335	1 986 313	1 999 465	2 110 775
Peanuts, shell.....	647 811	742 686	753 905	753 863
Rice (paddy).....	5 556 834	7 579 649	6 652 508	6 394 285
Potato.....	1 133 860	1 245 857	1 606 473	1 506 500
Sugar cane.....	62 534 516	75 852 866	76 610 500	75 247 090
Beans, black (haricot).....	1 708 983	2 289 796	2 419 677	2 199 974
Tobacco, leaf.....	187 040	248 182	258 019	250 224
Jute.....	47 477	61 585	51 206	48 718
Castor beans.....	224 961	355 026	370 334	378 398
Manioc.....	19 843 422	24 992 579	29 203 229	30 073 943
Corn (maize).....	9 587 285	12 111 921	12 813 638	12 693 435
Soybeans.....	342 175	523 176	654 476	1 056 607
Tomato.....	488 364	579 839	775 262	700 438
Wheat.....	705 619	585 384	856 170	1 373 691

SOURCE — Escritório de Estatística do Ministério da Agricultura.

Trans-Amazon colonist village





3.3.2 — AGRICULTURE

3.3.2.4 — Main crops, by States and Territories — 1969

a) Harvested area, and quantities produced of permanent crops

STATES AND TERRITORIES	HARVESTED AREA (ha)	QUANTITIES		STATES AND TERRITORIES	HARVESTED AREA (ha)	QUANTITIES	
		Metric tons	Percentage			Metric tons	Percentage
BANANA (1)				COCONUT (2)			
Ceará.....	40 807	87 781	18,9	Ceará.....	10 663	62 760	9,6
São Paulo.....	42 074	60 832	13,1	Pernambuco.....	9 702	61 025	9,3
Minas Gerais.....	36 399	55 277	11,9	Other.....	20 918	148 025	22,6
Rio de Janeiro.....	35 800	43 106	9,3	BRAZIL.....	115 992	656 007	100,0
Rio Grande do Sul.....	8 985	35 048	7,6	ORANGE (2)			
Pernambuco.....	16 490	33 924	7,3	São Paulo.....	82 996	6 305 544	43,5
Espírito Santo.....	18 948	27 995	6,1	Minas Gerais.....	19 834	1 687 818	11,6
Other.....	73 610	119 361	25,8	Rio de Janeiro.....	17 488	1 195 632	8,3
BRAZIL.....	273 113	463 324	100,0	Rio Grande do Sul.....	16 585	1 099 000	7,6
COCOA				Paraná.....	6 731	756 961	5,2
Bahia.....	406 367	203 098	96,2	Guanabara.....	7 344	734 400	5,1
Other.....	31 270	8 064	3,8	Other.....	32 079	2 704 702	18,7
BRAZIL.....	437 637	211 162	100,0	BRAZIL.....	183 057	14 484 057	100,0
COFFEE BEANS				PEPPER, BLACK			
Paraná.....	1 150 403	1 492 000	58,1	Pará.....	3 531	13 230	94,3
São Paulo.....	762 325	732 000	28,5	Other.....	1 922	801	5,7
Minas Gerais.....	290 985	164 000	6,4	BRAZIL.....	5 453	14 031	100,0
Espírito Santo.....	217 764	68 000	2,7	SISAL			
Other.....	149 422	111 014	4,3	Paraíba.....	69 446	105 913	34,0
BRAZIL.....	2 570 899	2 567 014	100,0	Bahia.....	140 926	99 760	32,1
COCONUT (2)				Rio Grande do Norte.....	81 442	88 672	28,5
Bahia.....	31 196	178 955	27,3	Other.....	18 865	16 765	5,4
Alagoas.....	22 356	102 473	15,6	BRAZIL.....	310 679	311 110	100,0
Sergipe.....	21 157	102 769	15,6				

SOURCES — Escritório de Estatística do Ministério da Agricultura and Instituto Brasileiro do Café.

(1) 1 000 bunches. (2) 1 000 fruits.



3.3.2 — AGRICULTURE

3.3.2.4 — Main crops, by States and Territories — 1969

b) Harvested area, and quantities produced of temporary crops

STATES AND TERRITORIES	HARVEST-ED AREA (ha)	QUANTITIES		STATES AND TERRITORIES	HARVEST-ED AREA (ha)	QUANTITIES	
		Metric tons	Percentage			Metric tons	Percentage
UNGINNED COTTON				MANIOC			
São Paulo.....	469 767	551 493	26,1	Minas Gerais.....	120 161	2 023 257	6,7
Paraná.....	418 982	521 452	24,7	São Paulo.....	110 523	2 020 247	6,7
Ceará.....	1 201 181	333 691	15,8	Paraná.....	84 472	1 851 235	6,2
Paraíba.....	477 062	131 643	6,2	Pernambuco.....	141 328	1 756 198	5,8
Rio Grande do Norte.....	518 687	105 386	5,0	Goiás.....	70 279	1 219 582	4,1
Pernambuco.....	377 757	102 888	4,8	Other.....	490 032	6 312 153	21,0
Bahia.....	147 343	85 864	4,6	BRAZIL.....	2 029 373	30 073 943	100,0
Other.....	583 897	268 358	12,7	POTATO			
BRAZIL.....	4 194 676	2 110 775	100,0	Paraná.....	44 717	381 858	25,4
PEANUTS, SHELL				Rio Grande do Sul.....	64 421	345 523	22,9
São Paulo.....	479 193	565 772	75,0	São Paulo.....	42 703	337 549	22,4
Paraná.....	81 314	133 225	17,7	Minas Gerais.....	27 066	215 651	14,3
Other.....	52 825	54 866	7,3	Santa Catarina.....	27 694	182 799	12,1
BRAZIL.....	613 332	753 863	100,0	Other.....	14 448	43 121	2,9
RICE (Paddy)				BRAZIL.....	221 049	1 506 500	100,0
Rio Grande do Sul.....	409 037	1 353 673	21,2	SUGAR CANE			
Minas Gerais.....	839 414	1 014 998	15,9	São Paulo.....	495 704	25 887 374	34,4
Goiás.....	930 670	915 003	14,3	Pernambuco.....	227 249	10 565 274	14,0
São Paulo.....	709 017	774 097	12,1	Minas Gerais.....	216 716	8 332 004	11,1
Maranhão.....	536 940	697 634	10,9	Rio de Janeiro.....	142 244	5 971 945	7,9
Paraná.....	398 061	432 057	6,7	Alagoas.....	114 367	5 497 026	7,3
Mato Grosso.....	251 217	389 666	6,1	Bahia.....	85 002	4 205 799	5,6
Other.....	546 343	817 157	12,8	Ceará.....	60 092	2 469 275	3,3
BRAZIL.....	4 620 699	6 394 285	100,0	Paraná.....	34 822	2 219 817	3,0
BEANS, BLACK (haricot)				Other.....	295 905	10 098 576	13,4
Paraná.....	675 771	469 501	21,4	BRAZIL.....	1 672 101	75 247 090	100,0
Minas Gerais.....	499 237	258 653	11,8	CORN (maize)			
Rio Grande do Sul.....	272 292	218 700	9,9	Paraná.....	1 552 341	2 711 972	21,4
Bahia.....	250 993	196 039	8,9	Rio Grande do Sul.....	1 730 130	2 233 679	17,6
Ceará.....	350 571	188 060	8,6	São Paulo.....	1 317 595	2 114 931	16,7
Pernambuco.....	247 541	128 433	5,8	Minas Gerais.....	1 569 666	1 989 130	15,6
São Paulo.....	230 933	128 237	5,8	Santa Catarina.....	537 455	989 628	7,8
Santa Catarina.....	111 607	104 383	4,7	Goiás.....	379 283	561 393	4,4
Goiás.....	157 472	96 061	4,4	Other.....	2 567 287	2 092 704	16,5
Other.....	836 847	411 107	18,7	BRAZIL.....	9 653 757	12 893 435	100,0
BRAZIL.....	3 633 264	2 199 974	100,0	SOYBEANS			
JUTE				Rio Grande do Sul.....	649 116	744 498	70,5
Pará.....	29 214	29 376	60,3	Paraná.....	172 401	213 584	20,2
Amazonas.....	15 393	18 487	37,9	Other.....	84 556	98 525	9,3
Maranhão.....	1 345	855	1,8	BRAZIL.....	906 073	1 056 607	100,0
BRAZIL.....	45 952	48 718	100,0	WHEAT			
MANIOC				Rio Grande do Sul.....	1 072 574	1 065 888	77,6
Bahia.....	228 353	4 056 688	13,5	Paraná.....	231 675	220 559	16,1
Rio Grande do Sul.....	283 343	3 622 176	12,0	Santa Catarina.....	96 668	81 694	5,9
Santa Catarina.....	138 674	2 936 226	9,8	Other.....	6 198	5 550	0,4
Ceará.....	137 612	2 163 508	7,2	BRAZIL.....	1 407 115	1 373 691	100,0
Maranhão.....	224 596	2 112 673	7,0				

SOURCE — Escritório de Estatística do Ministério de Agricultura.





Cattle in Minas Gerais

3.3.3 — LIVESTOCK

3.3.3.1 — "Quantum" index numbers — 1962-1969

YEARS	"QUANTUM" INDEX NUMBERS (Laspeyres criterion)				
	General index numbers (1955=100)	Specific index numbers (1955=100)			
		Large cattle	Small cattle	Poultry	Products
1962.....	126.7	124.0	132.9	134.4	133.4
1965.....	146.4	141.0	156.2	169.8	162.6
1968.....	151.0	143.9	163.1	183.8	174.4
1969.....	154.2	147.0	165.0	190.6	178.7

SOURCE — Instituto Brasileiro de Estatística

3.3.3 — LIVESTOCK

3.3.3.2 — Livestock numbers — 1962-1969

SPECIFICATION	LIVESTOCK			
	1962	1965	1968	1969
ABSOLUTE NUMBERS (1 000 heads)				
Horses.....	8 692	9 344	9 146	9 100
Asses.....	2 393	2 851	2 996	2 958
Mules.....	4 421	4 856	4 830	4 796
Sheep.....	19 718	22 312	24 606	24 449
Goats.....	12 397	14 253	14 815	14 637
INDEX NUMBERS (1961=100)				
Horses.....	104	112	109	109
Asses.....	108	126	133	131
Mules.....	105	115	115	114
Sheep.....	103	116	128	128
Goats.....	107	123	128	127

SOURCE — Escritório de Estatística do Ministério da Agricultura.

Cattle



3.3.3 — LIVESTOCK

3.3.3.3 — Livestock, by States and Territories — 1969

STATES AND TERRITORIES	LIVESTOCK		STATES AND TERRITORIES	LIVESTOCK	
	1 000 heads	Percentage		1 000 heads	Percentage
HORSES			MULES		
Minas Gerais.....	1 371	15,1	Pernambuco.....	223	4,7
Rio Grande do Sul.....	1 340	14,7	Paraíba.....	200	4,2
Bahia.....	982	10,8	Other.....	1 156	24,1
Goiás.....	797	8,8	BRAZIL.....	4 796	100,0
São Paulo.....	763	8,4	SHEEP		
Paraná.....	665	7,3	Rio Grande do Sul.....	13 235	54,1
Mato Grosso.....	593	6,5	Bahia.....	2 733	11,2
Santa Catarina.....	395	4,4	Ceará.....	1 550	6,4
Other.....	2 194	24,0	Piauí.....	1 228	5,0
BRAZIL.....	9 100	100,0	Paraíba.....	1 205	4,9
ASSES			Pernambuco.....	875	3,6
Bahia.....	941	31,8	Other.....	3 623	14,8
Ceará.....	464	15,7	BRAZIL.....	24 449	100,0
Piauí.....	368	12,5	GOATS		
Pernambuco.....	249	8,4	Bahia.....	3 188	21,8
Maranhão.....	238	8,0	Piauí.....	1 872	12,8
Paraíba.....	205	6,9	Pernambuco.....	1 593	10,9
Other.....	493	16,7	Ceará.....	1 585	10,8
BRAZIL.....	2 958	100,0	Paraíba.....	1 197	8,2
MULES			Paraná.....	851	5,8
Bahia.....	917	19,1	Maranhão.....	784	5,4
Minas Gerais.....	806	16,8	Rio Grande do Norte.....	667	4,5
São Paulo.....	620	12,9	Minas Gerais.....	553	3,8
Paraná.....	327	6,8	São Paulo.....	477	3,2
Goiás.....	299	6,2	Other.....	1 870	12,8
Ceará.....	248	5,2	BRAZIL.....	14 637	100,0

SOURCE — Escritório de Estatística do Ministério da Agricultura.

DOMESTIC INDUSTRY

The secondary sector of Brazilian industry, specially the manufacturing industries, has been expanding vigorously since 1968, with an annual growth rate of more than 10%.

Preliminary estimates of the physical volume of industrial production for 1971 foresee an increase of 11.2%, practically the same as that for the previous year (11.1%).

This rate is the result of an uptrend of 11.3% in the manufacturing industries, 8.4% in the building trades and 11.4% in the production of electric power.

Among other factors, the amazing effort of Brazilian industry in recent years can be traced to the recovery and subsequent expansion of the domestic market, better organization of the credit market and encouragement of exportation of manufactured goods.

The year 1971 was characterized by a predominantly optimistic outlook in industry, expressed in expansion of the productive capacity and justified by a reasonably high degree of utilization of machines, equipment and plant. On the other hand, there was a significant increase in the real value of industrial sales. The sector worked, therefore, at an increasing rate of production and sales.

It is important to examine the performance of the manufacturing industry in closer detail, inasmuch as it was responsible for 85% of the internal income generated by the sector.

In 1971, the industrial groups concerned with the manufacturing industry that showed the highest rates of growth were those of: transportation material (18%); rubber, metallurgy, mechanical engineering, electrical engineering and communications (15%), and textiles and clothing (14%); among those not so active figure non-metallic mineral products (4%) and food products, beverages and tobacco (2%).

Cement production reached 9.8 million tons, with an increase of about 9% over the figures for the previous year.

16,695 thousand square meters of plate glass were produced as compared with 14,780 thousand square meters in 1970, i.e. an increase of 13%.

The production of pig iron amounted to some 4.7 million tons, rather more than 12% of the accumulated total in 1970. Ingot steel advanced about 11% (from 5.4 million tons in 1970 to 6 million in 1971).

The real sales of electric household appliances rose 28% and electronic apparatus for household use 17%.

The output of passenger cars attained 342 thousand, 37% up from the results of the previous year. The tractor industry, likewise developing remarkably in 1971, achieved a total 23 thousand units, which meant an increase of about 54%.

The manufacture of pneumatic tires for vehicles also showed better results in 1971, 9,382 thousand covers or about 11% more than the 8,456 thousand of 1970, while inner tubes, with a total of 6,438 thousand, advanced 26%.

The production of automotive grade A gasoline increased about 5% to 9,696 thousand cubic meters in 1971. Diesel oil (7,066 thousand cubic meters) expanded 7%, but fuel oil (9,139 thousand cubic meters) only 2%.

In 1971, the production of 175,659 thousand meters of artificial and synthetic woven fabrics was 65% greater, comparatively, than in 1970. There was a reduction, however, in that of cotton fabrics, only 744,182 thousand meters being turned out, i.e. 9,861 thousand meters or 1% less than the year before.

The 783,916 thousand liters of beer brewed in 1970 rose to 881,761 thousand in 1971, while soft drink production increased from 606,147 to 733,964 thousand liters in the same period, involving a growth rate of 12% and 21% respectively.

Cigarette manufacture topped the 74,132-million mark in 1971, a rise of about 5% over the figures for the previous year.

The development of the civil construction industry was handicapped by a remarkable burst of activity of the Stock Exchange, in the first half-year, attracting savings which would probably have been invested in real estate otherwise. The growth rate of 8.4% is mainly due to heavier government commitments in so-called public works (highways, dams, etc.).

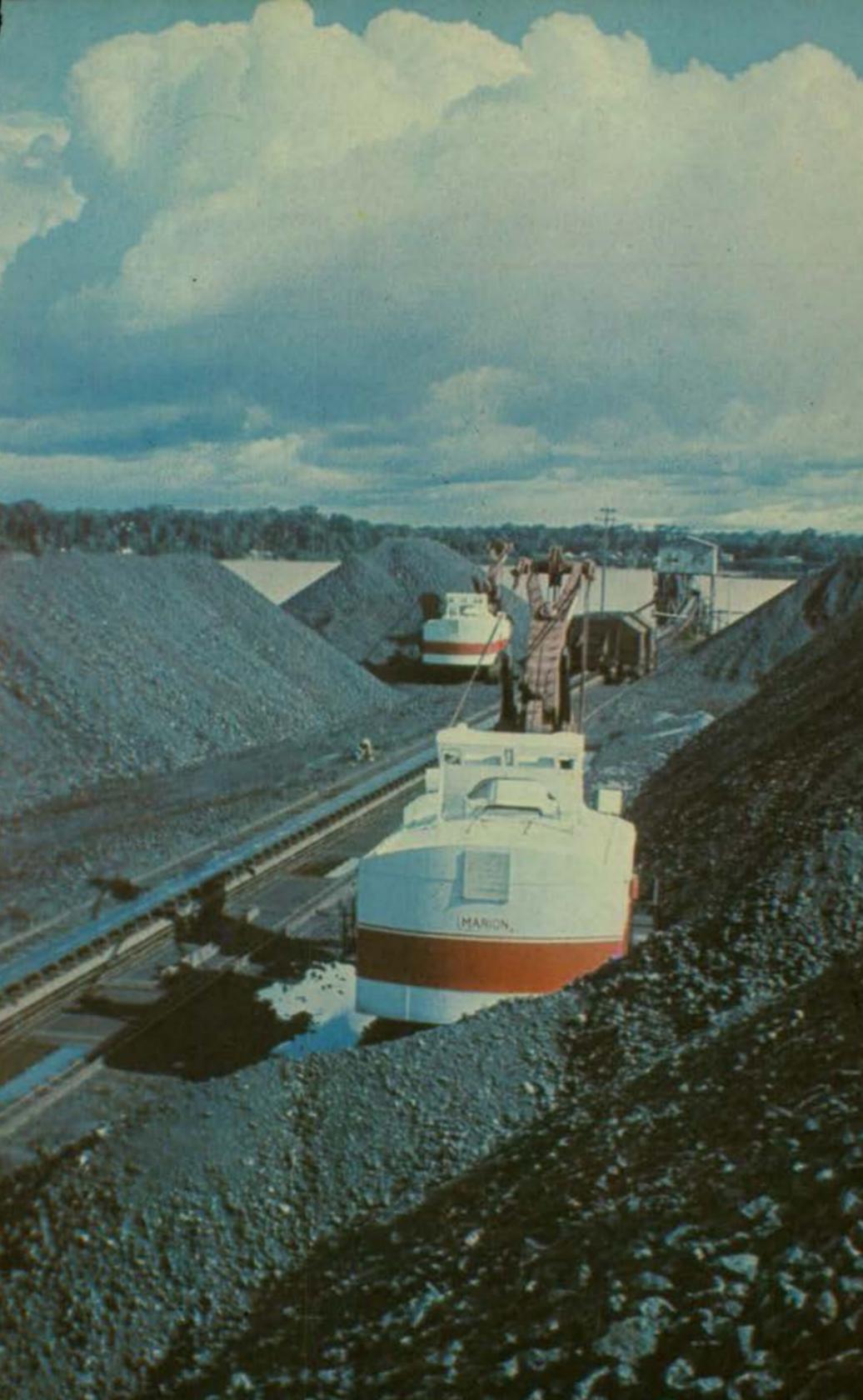
In the electric power industry, the generating capacity was expanded 13%, a higher rate than in 1970 (9.5%). In that year the installed capacity amounted to 11,233 MW, advancing to a total 12,670 MW in 1971. The greatest increase was made in the hydroelectric plants of Jaguará (456 MW), Jupuí (200 MW), Xavantes (200 MW) and Capivari-Cachoeira (123.5 MW) in the South Central region, and Paulo Afonso (412 MW) in the Northeastern region.

In the institutional field, with the object of ensuring continuity of the high growth indexes in the industrial sector and promoting its modernization and reorganization, the outstanding steps taken in 1971, apart from the Resolutions of the Industrial Development Commission (Conselho de Desenvolvimento Industrial — CDI) designed to encourage development in the sectors held to be top priority, were Decree Law N.º 1182 of July 16, 1971, and Law N.º 5772 of December 21, 1971.

Decree Law N.º 1182, while granting incentives to mergers and the opening of corporative capital, created a Commission on the Amalgamation and Incorporation of Enterprises (COFIE — Comissão de Fusão e Incorporação de Empresas) at the Finance Ministry. The COFIE has authority to pass on applications for revaluation of fixed assets, mergers or incorporation of acting concerns in the country. Such enterprises, if deemed by the COFIE to be of national interest, may proceed to the revaluation of fixed assets above the limits justified by adjustment for currency devaluation and up to market value, without paying income tax.

Incentives to mergers, incorporation and capital opening are important in enabling business to share in an economy designed to function in accordance with a model of advanced industrial capitalism, with technological innovations and reduction of operational costs. Supervision and control of the concentration process set in motion by the incentives is assigned to the COFIE in order to avoid certain undesirable situations in the way of monopolies, oligopolies and denationalization.

Law N.º 5772, in turn, deals with the Industrial Property Code (patents, etc.) and reorganization of the National Institute of Industrial Property (Instituto Nacional de Propriedade Industrial — INPI). According to the provisions of the new Code, more efficient treatment will be accorded via the INPI to acts and contracts relating to the transfer of technology, besides affording industrialists, interested in a better knowledge of technical possibilities open to them at home and abroad, a wider choice of options and/or alternatives. Thus, by creating greater facilities in the sector, for adapting to more refined technology or even finding a substitute for imported know-how, it is sought to attain one of the objectives envisaged in the industrial strategy proposed in the First National Economic and Social Development Plan — 1972/74.



3.4 — INDUSTRIAL PRODUCTION

3.4.1 — INDEX NUMBERS OF INDUSTRIAL PRODUCTION — 1963-1970

BRANCH OF INDUSTRY	INDEX NUMBERS (1962=100)			
	1963	1965	1968	1970 (1)
Mining (2).....	118,4	160,9	211,1	...
Manufacturing industries.....	99,7	99,8	133,0	163,7
Non-metallic minerals manufactures.....	99,9	95,6	129,2	171,7
Metallurgy.....	103,4	105,5	150,1	181,8
Machinery.....	102,6	91,5	117,2	148,1
Electric and communications material.....	96,2	116,4	197,5	224,2
Transportation equipment.....	89,3	91,7	144,0	225,2
Wood and wood products.....	102,5	83,4	...	...
Paper and cardboard.....	107,8	112,5	149,6	181,5
Rubber.....	100,9	101,5	157,0	202,9
Hides and skins.....	92,8	132,4	132,8	...
Chemicals.....	103,6	109,7	147,2	192,4
Textiles.....	97,3	85,2	94,9	97,2
Wearing apparel, footwear and textile products.....	100,8	100,7	129,5	113,7
Food products.....	99,2	95,8	114,4	142,8
Beverages.....	102,0	99,1	108,1	129,9
Tobacco.....	100,5	94,5	119,8	136,7
Construction.....	101,3	78,8	106,2	130,9
Public utilities (electric power).....	102,6	114,6	146,7	179,5
TOTAL	100,2	100,4	133,4	164,1

SOURCES — Instituto Brasileiro de Estatística and Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary data. (2) Crude petroleum excluded.

3.4.2 — MINING

3.4.2.1 — "Quantum" index numbers — 1962-1968

YEARS	GENERAL INDEX NUMBERS (1955=100)	SPECIFIC INDEX NUMBERS (1955=100)		
		Exploitation of metallic minerals	Exploitation of non-metallic minerals	Exploitation of coal, petroleum, and natural gas
1962.....	346,2	313,0	228,5	473,6
1965.....	515,1	585,2	282,3	508,7
1968.....	743,8	743,0	532,4	860,4

SOURCE — Instituto Brasileiro de Estatística.

- NOTES — 1. Annual synthetic indexes shown in this table are weighted average arithmetic indexes based on a sample of 25 specific products, from which 11 are minerals (aluminium, beryllium, columbium and tantalite ores, chromium, lead, iron, manganese, nickel, titanium, tungsten and zirconium ores) and 14 are non-metallic minerals (asbestos, barytes, dolomite, natural phosphates, gypsum, graphite, mica, quartz, salt, talc, marble, coal, natural gas and crude petroleum) which represent a very high percentage of the total production value in mining.
2. The Laspeyres criterion was adopted for computing the index numbers.



Petrobrás terminal — Bahia

MINERAL RESOURCES

Brazil has one of the largest mineral reserves in the world. In its vast territory, of varied geological formation, are to be found, in larger or smaller quantity, nearly all the known types of minerals. The Brazilian reserves of iron ore are estimated at 80,000 million tons and those of manganese at 150 million, both ranking high in the country's exports.

With the industrial upsurge in Brazil that began in the early forties, the need for a broader knowledge of the subsoil of the country to exploit its resources adequately has increased from year to year. With the object of increasing the consumer supply of mineral goods, as well as the output of

minerals for export, the Companhia de Pesquisa de Recursos Minerais (Mineral Resources Prospection Company) was created in 1969 as a mixed economy corporation for stimulating the discovery and development of the mineral and water resources of the country. In the Amazonian region — an area that covers more than 4 million square kilometers — there are still two state agencies carrying out projects in order to make an assessment of its mineral resources: Superintendência do Desenvolvimento da Amazônia — SUDAM (Supervision for Amazonia Development) and Instituto de Desenvolvimento Sócio-Econômico do Pará — IDESP (Institute for Economic and Social Development of Pará).

The Prospection Company has more than 100 projects under way covering the whole of the national territory. Its range of action has increased so rapidly that the total payroll has risen from 787 in 1970 to 1,898 in 1971, including 165 top-level technologists, 290 on the intermediate level, and 290 auxiliary technicians. Particularly outstanding work has been done in geological surveys and mapping, assessment of mineral outcrops, geochemical prospection of sediments and detailed research and studies to determine the economic feasibility of working new mineral deposits. The execution of a number of projects has led to assessment of occurrences of lead, nickel, manganese, iron, copper, gold, diamonds, rock crystal, coal, beryl, columbite, tantalite, rock salt, niobium, titanium, scheelite, molybdenum, limestone, clay, amazonite, galena, fluorite, barytes, cassiterite, magnetite, rutile, marble, kaolin, feldspar, graphite, talc, phosphates, titanium and asbestos.

Since 1969, SUDAM has been taking an active part in prospecting in Amazonia. The first project covered an area of 20,800 square kilometers in the Jamanxim river basin, state of Pará, with the purpose of geological reconnaissance and geochemical prospection of the basin, in which there were found to exist considerable reserves of gold and tin, besides occurrences of copper, lead and silver. Another project financed by SUDAM in the Iri-Curuá area, on the left bank of the River Xingu, led to the conclusion that the soil of the region denoted the same formation for nonferrous metals as that encountered in the Jamanxim basin. Among the achievements of SUDAM in this field, attention should be drawn to the construction of a Geology and Mineralogy Laboratory in the University of Pará.

Parallel to the action developed by the CPRM and the SUDAM, the IDESP has 11 projects being carried out by the Study Group on Geology and Mines, the most important being the Coal Prospection Program in the valley of the Rio Fresco, a tributary of the Xingu. Started in 1958, the project covered an area of 28,000 km², the main purpose being to outline the area of particular interest for coal-mining. The geological map showed the existence of iron, gold and cassiterite, and, on analysis, the carbonaceous material was found to have reached a high degree of metamorphism into anthracite with a heating value of 6,000 calories, specially suitable therefore for power production.

3.4.2 — MINING
3.4.2.2 — Production

a) Summary — 1967-69

ITEMS	QUANTITIES (Metric tons)			INDEX NUMBERS (1966=100)		
	1967	1968	1969	1967	1968	1969
ORES						
Bauxite.....	302 853	313 748	362 058	121	126	145
Beryllium.....	...	744	207	...	175	49
Lead.....	295 706	320 553	340 905	89	96	102
Copper.....	119 206	162 842	...	100	136	...
Columbite.....	56	130	202	1 400	3 250	5 050
Chromite.....	15 025	17 032	18 353	62	70	76
Tin (cassiterite).....	2 709	2 870	3 080	108	115	123
Iron.....	22 297 562	25 123 213	27 156 684	96	108	117
Manganese.....	1 358 370	2 096 595	2 010 816	93	144	138
Nickel (garnierite).....	62 294	67 744	92 885	104	113	156
Tungsten (scheelite).....	141 935	151 583	...	100	107	...
Zirconium.....	420	328	2 934	85	66	593
INDUSTRIAL MINERALS						
Asbestos (crysolite).....	337 813	345 442	...	124	127	...
Apatite.....	504 832	582 703	...	171	197	...
Barite.....	86 005	99 980	...	132	153	...
Dolomite.....	224 972	353 091	706 534	112	176	352
Phosphorite.....	70 370	66 090	159 979	85	79	192
Gypsum.....	71 450	216 798	285 644	89	270	356
Magnesite.....	109 253	137 820	...	86	108	...
Quartz (rock crystal).....	1 254	1 182	...	162	153	...
Salt.....	1 086 827	1 248 058	1 629 507	76	87	114
Talc (steatite).....	29 359	79 490	125 060	102	275	433
STRUCTURAL MATERIALS						
Marble.....	41 882	40 993	49 832	102	99	121
FUEL						
Coal.....	4 338 787	4 827 590	5 127 351	118	132	140

SOURCES — Escritório de Estatística do Ministério da Agricultura, Instituto Brasileiro de Estatística, Comissão Executiva do Sal and Conselho Nacional do Petróleo — Serviço de Combustíveis Sólidos.

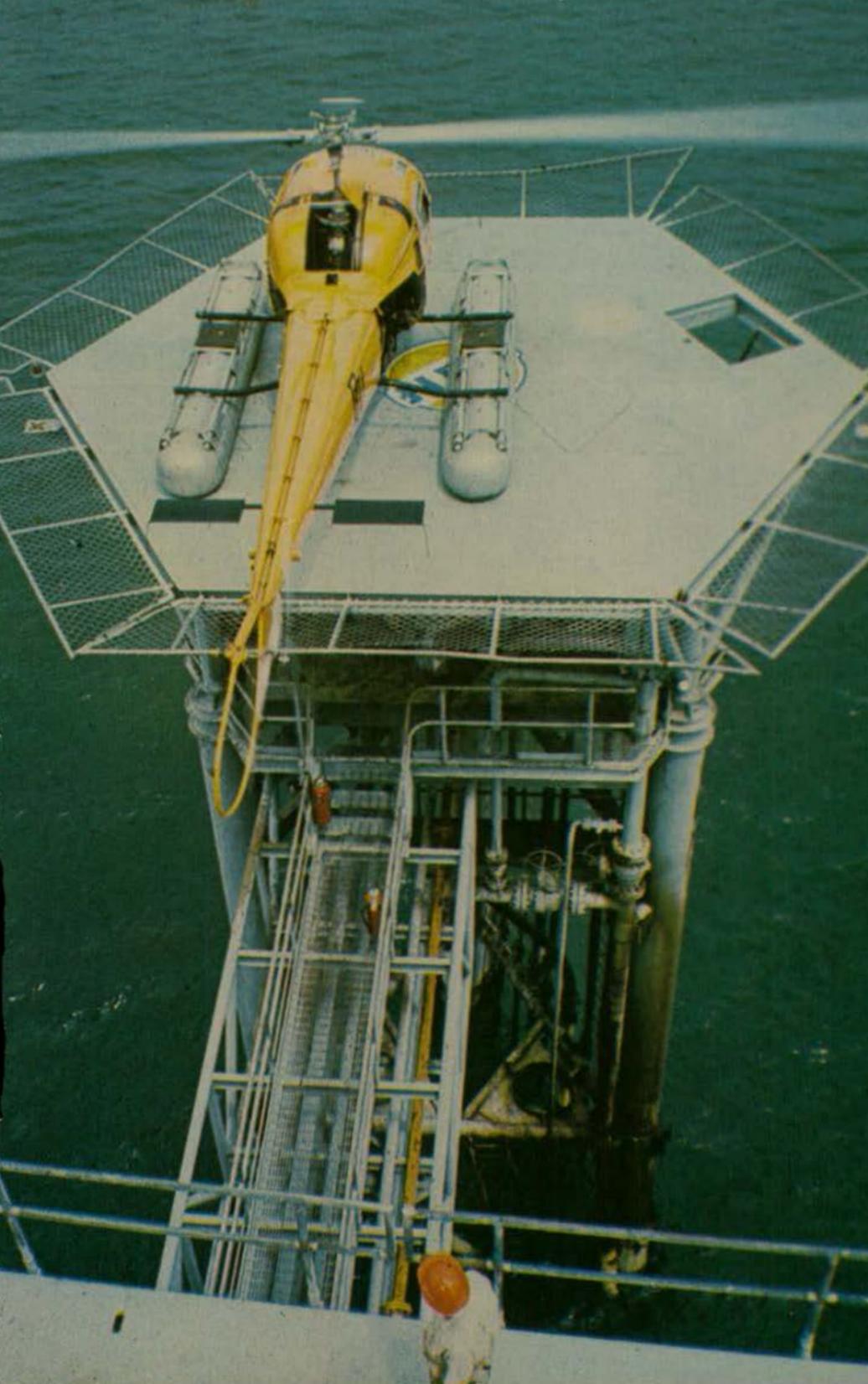
3.4.2 — MINING

3.4.2.2 — Production

b) Production, by States and Territories — 1969

STATES AND TERRITORIES	QUANTITY		STATES AND TERRITORIES	QUANTITY	
	Metric tons	Percentage		Metric tons	Percentage
BAUXITE			GYPSUM		
Minas Gerais.....	361 372	99,8	Pernambuco.....	205 024	71,8
São Paulo.....	686	0,2	Bahia.....	43 864	15,4
BRAZIL.....	362 058	100,0	Piauí.....	17 040	6,0
BERYLLIUM			Sergipe.....	13 906	4,9
Minas Gerais.....	200	96,0	Other.....	5 810	1,9
Other.....	7	3,4	BRAZIL.....	285 644	100,0
BRAZIL.....	207	100,0	MARBLE		
CASSITERITE			Espírito Santo.....	23 443	47,0
Rorônia, Territory.....	2 818	91,5	Bahia.....	7 660	15,4
Minas Gerais.....	231	7,5	Minas Gerais.....	7 073	14,2
Other.....	31	1,0	Rio de Janeiro.....	5 240	10,5
BRAZIL.....	3 080	100,0	Other.....	6 416	12,9
COLUMBITE			BRAZIL.....	49 832	100,0
Minas Gerais.....	197	97,5	LEAD (ores)		
Rio Grande do Norte.....	5	2,5	Bahia.....	249 110	73,1
BRAZIL.....	202	100,0	Paraná.....	91 795	26,9
CHROMITE			BRAZIL.....	340 905	100,0
Bahia.....	17 087	93,1	IRON (ores)		
Minas Gerais.....	1 176	6,4	Minas Gerais.....	27 106 431	99,8
Other.....	90	0,5	Other.....	50 253	0,2
BRAZIL.....	18 353	100,0	BRAZIL.....	27 156 684	100,0
DOLOMITE			MANGANESE (ores)		
Minas Gerais.....	355 541	50,3	Amapá, Territory.....	1 428 049	71,0
São Paulo.....	206 935	29,3	Minas Gerais.....	494 243	24,6
Rio de Janeiro.....	131 878	18,7	Other.....	88 524	4,4
Other.....	12 180	1,7	BRAZIL.....	2 010 816	100,0
BRAZIL.....	706 534	100,0	ZIRCONIUM (ores)		
PHOSPHORITE			Rio de Janeiro.....	2 335	79,6
São Paulo.....	89 577	56,0	Minas Gerais.....	364	12,4
Minas Gerais.....	37 949	23,7	Bahia.....	235	8,0
Pernambuco.....	32 453	20,3	BRAZIL.....	2 934	100,0
BRAZIL.....	159 979	100,0	TALC (steatite)		
GARNIERITE			Paraná.....	54 787	43,8
Minas Gerais.....	92 885	100,0	Minas Gerais.....	40 555	32,4
BRAZIL.....	92 885	100,0	Rio de Janeiro.....	13 381	10,7
			Other.....	16 337	13,1
			BRAZIL.....	125 060	100,0

SOURCE — Instituto Brasileiro de Estatística.



3.4.2 — MINING

3.4.2.2 — Production

c) Production of coal and salt, by States — 1971

STATES	QUANTITIES	
	Metric tons	Percentage
COAL		
Santa Catarina.....	4 363 929	77,0
Rio Grande do Sul.....	956 146	16,9
Paraná.....	345 812	6,1
BRAZIL.....	5 665 887	100,0
SALT		
Rio Grande do Norte.....	916 645	62,1
Rio de Janeiro.....	352 080	23,8
Ceará.....	84 447	5,7
Maranhão.....	69 820	4,7
Other.....	53 872	3,7
BRAZIL.....	1 476 864	100,0

SOURCES — Conselho Nacional do Petróleo — Serviço de Combustíveis Sólidos and Comissão Executiva do Sal.

d) Crude petroleum, by States — 1962-1971

STATES	PRODUCTION (m ³)			
	1962	1965	1968	1971
Alagoas.....	2 330	21 427	36 586	45 566
Sergipe.....	1	11 009	1 281 427	1 729 332
Bahia.....	5 310 238	5 427 912 (1)	8 191 958 (2)	8 33 8396
BRAZIL.....	5 312 569	5 460 348	9 509 971	10 114 294

SOURCE — Petróleo Brasileiro S.A. (Petrobrás).

(1) Including 163 925 m³ of natural gas liquids. (2) Including 218 299 m³ of natural gas liquids.

CRUDE PETROLEUM AND REFINED PRODUCTS

As a result of many years of drilling over the land area of Brazil, extending for 8,456,508 square kilometers, 21 sedimentary basins have been located, together covering 3.2 million square kilometers. Recent exploration of the continental shelf as far as 200 meters reveals a prolongation of the coastal basins seawards and the existence of new sedimentary basins stretching all along the coast of the country with an estimated area of 800 thousand square kilometers.

Exploration and production of oil is exclusively in the hands of Petrobrás, a state enterprise created in 1953 which began operating in 1954 with a production of 158 thousand cubic meters of crude oil. Despite continuous expansion since 1954, Brazilian petroleum production has remained stationary throughout the three years period 1969-71 at an annual average of 10 million cubic meters, a volume that meets almost half the demand for domestic consumption. At present the greater part of the Brazilian oil output comes from wells in the land area, particularly the Recôncavo Baiano, which contributes 82% to production.

Petrobrás has been intensifying drillings on the continental shelf, where there are signs of large oil formations with an estimated reserve of 25,000 million barrels. The results obtained with seismic methods reveal that the deposits beneath the continental platform may be more productive and afford a better yield than those explored on the land area. The results show further that the most promising areas are the Amazon delta, and off the Sergipe and São Paulo coast.

Petrobrás has been keeping 5 drilling platforms and 2 sounding vessels at work and operation has been concentrated on the ocean rim edging the states of Bahia, Sergipe, Rio de Janeiro, São Paulo, Piauí and Ceará. As the platforms now in service cannot drill deeper than about 80 meters and there are signs of oil lower down, Petrobrás has purchased a sounding ship that can get a satisfactory echo from a depth of 300 meters and will be brought into operation at the beginning of 1973.

Oil refining started in Brazil in 1932, when a small unit was set up at Uruguaiana, in Rio Grande do Sul, with a capacity of 150 barrels a day. There are now 12 units in operation in different parts of the country and the refining capacity already installed, amounting to 834,100 barrels a day, should be enough to provide for domestic consumption up to the end of 1974.

In order to meet the increasing demand in the 1975/80 period, Petrobrás has drawn up a plan for expanding the refining capacity, divided into two stages. The first stage, scheduled for completion by 1974/75, covers doubling the refinery on the São Paulo uplands (Refinaria do Planalto Paulista — REPLAN) and building a new one in the state of Paraná with a capacity of about 20 thousand cubic meters a day. The second stage involves a complementary rise in refining capacity, by 1977/78, in the existing units in São Paulo and the North and Northeastern regions. By 1981, the overall refining capacity of the country should have reached 1.2 million barrels a day.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

a) Brazil

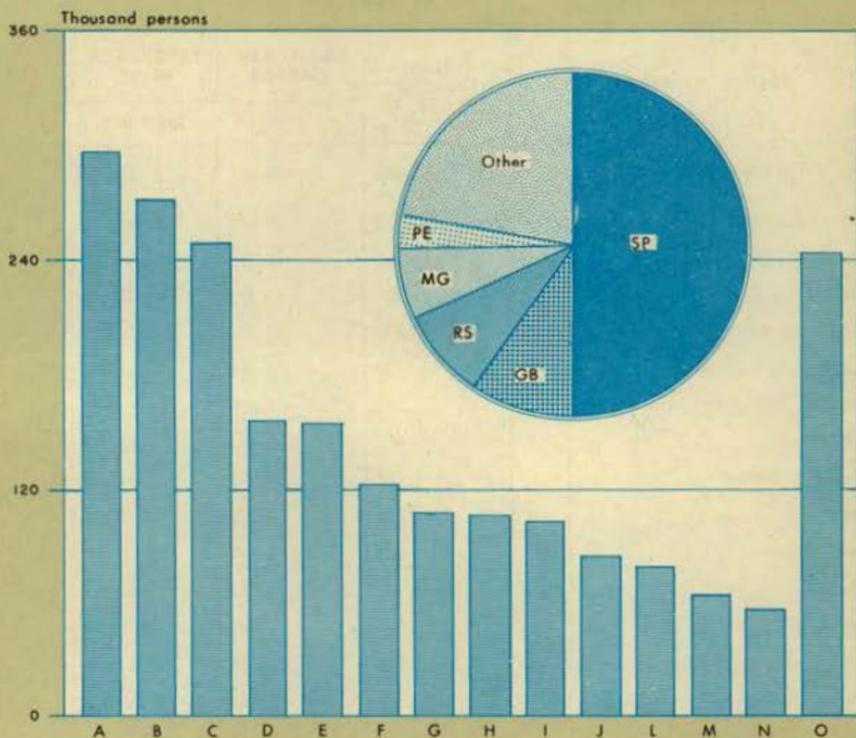
BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC. 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
			Cr\$ 1 000	
TOTALS	2 098 863	10 671 036	87 582 884	87 108 152
Non-metallic minerals manufactures.....	155 834	617 144	3 831 242	3 760 856
Metallurgy.....	249 094	1 462 410	10 281 280	10 119 319
Machinery.....	107 515	717 197	3 994 700	4 097 205
Electric and communications material.....	106 778	691 174	4 634 740	4 644 543
Transportation equipment.....	154 343	1 293 314	8 097 983	8 207 320
Wood and wood products, excluding furniture...	85 116	257 209	1 889 575	1 885 972
Furniture.....	64 028	237 052	1 362 236	1 340 655
Paper and cardboard.....	56 376	280 734	2 339 546	2 308 099
Rubber.....	28 491	157 712	1 739 399	1 662 774
Hides and skins.....	23 037	82 445	720 478	719 408
Chemicals.....	103 951	833 330	10 324 362	10 294 623
Pharmaceutical products.....	35 189	305 921	2 355 244	2 232 356
Soap, cleaners, toilet goods.....	17 797	104 657	1 405 995	1 302 366
Plastic products.....	32 532	160 027	1 411 083	1 398 787
Textiles.....	297 713	1 099 859	8 334 687	8 392 618
Wearing apparel, footwear and textile products	122 135	361 035	2 657 523	2 622 282
Food products.....	272 500	987 536	16 230 404	16 231 896
Beverages.....	47 499	232 181	1 779 301	1 754 119
Tobacco.....	15 094	75 944	1 081 301	1 053 059
Printing and publishing.....	80 599	516 647	1 976 782	1 965 578
Other.....	43 242	197 508	1 135 023	1 114 317

SOURCE — Instituto Brasileiro de Estatística.

NOTE — The present data are derived from results of an annual representative sample survey of selected establishments producing about 90 percent of Brazilian total industrial output.

MANUFACTURING INDUSTRIES

Personnel - 1970



- A - Textiles
- B - Foodstuffs
- C - Metallurgy
- D - Non-metallic minerals
- E - Transportation equipment
- F - Wearing apparel, footwear
- G - Machinery

- H - Electric and communications material
- I - Chemicals
- J - Wood and wood products
- L - Printing and publishing
- M - Furniture
- N - Paper and cardboard
- O - Other

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

b) Pernambuco

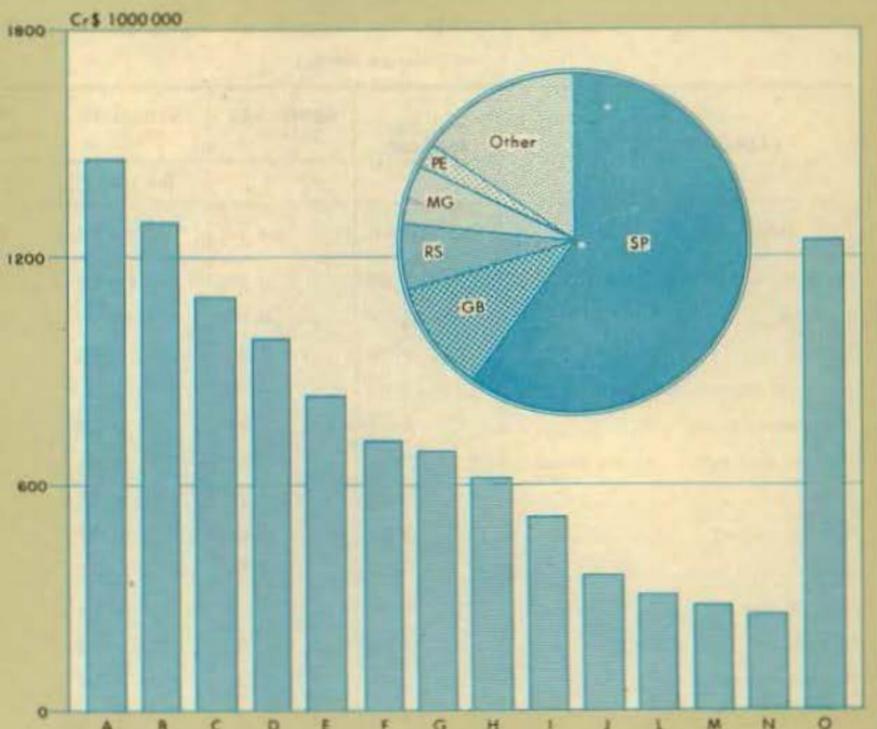
BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
TOTALS	70 038	228 263	2 180 214	2 145 955
Non-metallic minerals manufactures	6 719	21 508	178 412	178 401
Metallurgy	2 981	11 271	116 570	103 521
Machinery	703	3 022	12 694	12 949
Electric and communications material	2 882	11 778	104 485	100 095
Transportation equipment	700	3 884	32 848	34 078
Wood and wood products, excluding furniture	724	1 600	10 783	10 720
Furniture	1 428	3 746	24 524	23 770
Paper and cardboard	1 369	4 654	36 780	37 354
Rubber	237	709	3 262	3 170
Hides and skins	574	1 715	9 151	8 820
Chemicals	3 634	15 873	169 293	169 681
Pharmaceutical products	328	1 413	11 380	11 277
Soap, cleaners, toilet goods	248	610	23 166	24 462
Plastic products	471	1 443	15 089	16 166
Textiles	13 209	36 541	253 476	258 336
Wearing apparel, footwear and textile products	3 451	6 967	73 969	74 912
Food products	24 625	73 898	859 713	843 264
Beverages	3 156	15 371	124 622	121 223
Tobacco	908	4 848	85 378	79 166
Printing and publishing	1 600	7 109	33 470	33 451
Other	91	303	1 149	1 139

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1.a)

MANUFACTURING INDUSTRIES

Salaries - 1970



A - Metallurgy

B - Transportation equipment

C - Textiles

D - Foodstuffs

E - Chemicals

F - Machinery

G - Electric and communications material

H - Non-metallic minerals

I - Printing and publishing

J - Wearing apparel/footwear and textile products

L - Pharmaceutical products

M - Paper and cardboard

N - Wood and wood products

O - Other

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

e) Minas Gerais

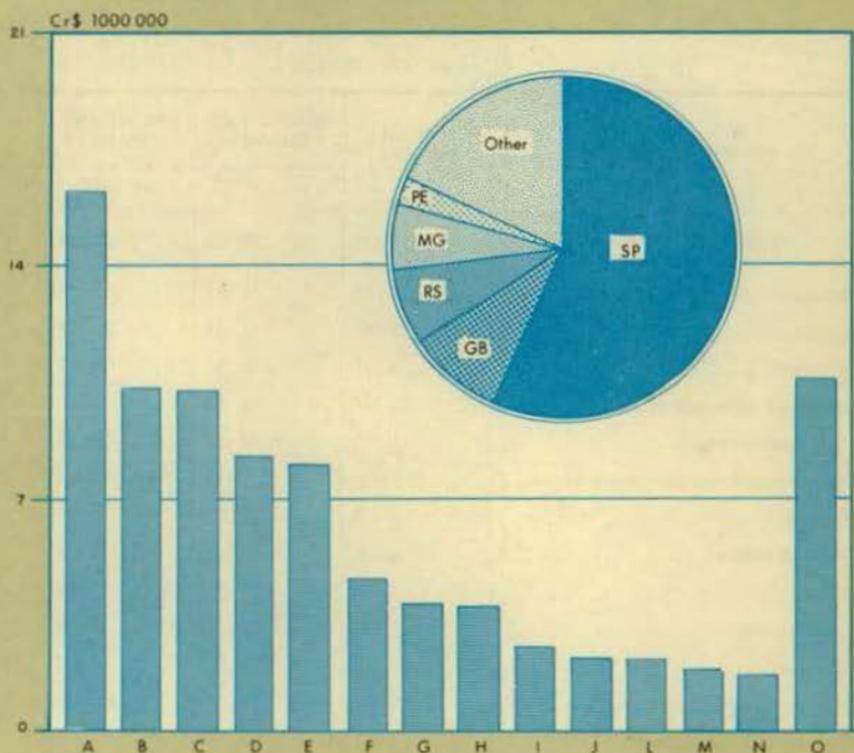
BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
TOTALS	139 441	576 978	5 653 285	5 604 953
Non-metallic minerals manufactures.....	13 893	58 238	479 338	486 411
Metallurgy.....	42 120	248 055	2 058 749	2 007 718
Machinery.....	3 218	16 576	103 759	80 557
Electric and communications material.....	1 813	7 765	66 131	67 631
Transportation equipment.....	1 415	6 921	58 026	60 348
Wood and wood products, excluding furniture...	2 710	6 834	51 601	51 622
Furniture.....	4 252	10 637	82 941	82 326
Paper and cardboard.....	2 059	6 568	65 167	64 621
Rubber.....	512	1 880	17 811	17 809
Hides and skins.....	1 948	5 170	50 153	49 813
Chemicals.....	2 893	21 607	479 513	476 596
Pharmaceutical products.....	495	2 031	14 879	14 965
Soap, cleaners, toilet goods.....	331	1 244	11 245	11 857
Plastic products.....	330	962	9 107	8 947
Textiles.....	31 191	81 045	548 316	565 301
Wearing apparel, footwear and textile products..	4 841	10 420	74 842	75 194
Food products.....	16 669	54 005	1 244 507	1 251 217
Beverages.....	2 354	9 324	57 626	57 197
Tobacco.....	558	3 146	79 619	75 183
Printing and publishing.....	4 779	21 835	85 090	85 139
Other.....	1 060	2 715	14 865	14 501

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1 a).

MANUFACTURING INDUSTRIES

Value of production - 1970



A - Foodstuffs

B - Chemicals

C - Metallurgy

D - Textiles

E - Transportation equipment

F - Electric and communications material

G - Machinery

H - Non-metallic minerals

I - Wearing apparel, footwear and textile products

J - Pharmaceutical products

L - Paper and cardboard

M - Printing and publishing

N - Wood and wood products

O - Other

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

d) Guanabara

BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC. 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
TOTALS	203 172	1 127 753	8 002 420	7 876 912
Non-metallic minerals manufactures.....	14 422	66 249	377 374	361 902
Metallurgy.....	15 045	77 621	585 694	572 631
Machinery.....	8 571	60 787	405 036	446 331
Electric and communications material.....	13 164	100 754	515 708	513 423
Transportation equipment.....	9 432	64 698	276 626	284 824
Wood and wood products, excluding furniture...	2 126	8 567	43 359	43 051
Furniture.....	8 819	32 247	167 511	165 542
Paper and cardboard.....	4 268	19 354	175 028	173 334
Rubber.....	1 797	7 818	63 615	66 967
Hides and skins.....	2 869	16 364	90 878	89 924
Chemicals.....	6 649	53 066	658 973	639 622
Pharmaceutical products.....	9 821	79 715	649 996	589 031
Soap, cleaners, toilet goods.....	4 479	25 776	283 911	274 136
Plastic products.....	5 016	27 614	315 636	314 709
Textiles.....	17 528	82 329	514 171	513 509
Wearing apparel, footwear and textile products..	20 761	60 752	401 173	389 630
Food products.....	19 562	81 712	1 138 074	1 124 455
Beverages.....	9 079	56 272	364 145	358 243
Tobacco.....	2 500	16 143	226 785	221 525
Printing and publishing.....	22 858	168 847	623 231	613 178
Othe.....	4 406	21 068	125 496	120 945

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1 a).

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

e) São Paulo

BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC. 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
TOTALS	1 053 971	6 426 455	49 842 522	49 586 569
Non-metallic minerals manufactures.....	65 941	309 962	1 822 211	1 773 261
Metallurgy.....	127 472	794 068	5 161 428	5 102 710
Machinery.....	77 272	561 163	2 993 884	3 080 372
Electric and communications material.....	78 827	530 981	3 528 275	3 549 645
Transportation equipment.....	121 602	1 073 748	7 138 273	7 241 617
Wood and wood products, excluding furniture..	12 820	56 056	360 773	355 900
Furniture.....	26 701	125 790	700 327	685 853
Paper and cardboard.....	32 711	184 831	1 547 741	1 529 020
Rubber.....	21 374	132 208	1 467 462	1 393 232
Hides and skins.....	5 536	22 577	202 223	202 280
Chemicals.....	61 296	496 150	5 308 566	5 237 285
Pharmaceutical products.....	21 103	204 499	1 493 458	1 443 667
Soap, cleaners, toilet goods.....	9 249	65 558	930 740	838 786
Plastic products.....	21 940	111 633	875 217	864 599
Textiles.....	157 909	672 187	4 892 888	4 918 298
Wearing apparel, footwear and textile products..	47 875	172 574	1 342 837	1 326 390
Food products.....	84 221	414 720	7 265 345	7 242 649
Beverages.....	15 819	90 751	721 783	722 598
Tobacco.....	3 203	19 688	336 923	334 355
Printing and publishing.....	32 568	244 727	938 829	942 438
Other.....	28 532	142 584	813 339	801 614

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1 a).

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.1 — General aspects, by branch of industry — 1970

f) Rio Grande do Sul

BRANCH OF INDUSTRY	PERSONS ENGAGED (ON DEC. 31)	WAGES AND SALARIES	PRODUCTION VALUE	SALES VALUE
			Cr\$ 1 000	
TOTALS	175 562	641 293	6 353 380	6 226 069
Non-metallic minerals manufactures.....	7 938	22 354	153 592	150 874
Metallurgy.....	22 680	91 193	643 832	630 539
Machinery.....	10 498	46 832	315 720	310 468
Electric and communications material.....	4 672	20 667	226 370	221 395
Transportation equipment.....	6 147	28 486	167 619	163 429
Wood and wood products, excluding furniture...	7 864	24 410	172 212	165 050
Furniture.....	5 611	15 961	114 338	112 240
Paper and cardboard.....	3 460	10 893	82 343	79 834
Rubber.....	1 827	6 668	47 037	46 030
Hides and skins.....	8 571	26 651	287 834	287 735
Chemicals.....	5 045	35 043	778 265	765 579
Pharmaceutical products.....	712	3 463	20 972	19 492
Soap, cleaners, toilet goods.....	667	2 652	39 636	38 054
Plastic products.....	854	3 622	31 172	30 807
Textiles.....	8 238	27 176	228 670	226 479
Wearing apparel, footwear and textile products..	32 884	85 382	539 104	538 247
Food products.....	29 843	107 141	1 827 268	1 793 771
Beverages.....	5 909	24 664	271 456	251 720
Tobacco.....	3 082	19 446	238 236	227 763
Printing and publishing.....	5 274	25 627	92 793	93 371
Other.....	3 586	12 962	74 891	73 192

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1. a).



3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.2 — Distribution of employees, in November, by monthly earnings and branch of industry — 1970

BRANCH OF INDUSTRY	EMPLOYEES								
	Total	Monthly earnings (Cr\$)							
		60,00-157,50	157,51-210,00	210,01-262,50	262,51-367,50	367,51-472,50	472,51-682,50	682,51-892,50	892,51 and over
TOTALS.....	377 424	20 159	35 201	27 361	53 742	45 911	58 949	37 075	99 026
Non-metallic minerals manufactures	21 801	1 071	2 813	1 535	2 992	3 004	3 271	1 984	5 131
Metallurgy.....	39 009	1 288	2 124	2 574	5 735	5 694	6 728	3 944	10 922
Machinery.....	22 260	679	1 285	1 429	2 914	2 553	3 610	2 322	7 468
Electric and communications material.....	22 625	494	1 005	1 432	2 973	3 149	3 981	2 659	6 932
Transportation equipment.....	29 221	523	802	1 088	3 343	2 855	5 003	3 979	11 628
Wood and wood products, excluding furniture.....	12 137	1 416	1 866	941	1 647	1 370	1 769	773	2 355
Furniture.....	10 821	672	1 244	821	1 586	1 172	1 800	1 354	2 172
Paper and cardboard.....	10 493	292	799	1 062	1 817	1 621	1 696	969	2 237
Rubber.....	4 169	192	291	306	480	355	632	481	1 432
Hides and skins.....	3 117	115	328	228	441	202	484	405	914
Chemicals.....	26 117	653	1 272	1 759	3 567	2 923	5 074	3 446	7 423
Pharmaceutical products.....	17 120	408	931	908	1 877	1 785	2 599	1 821	6 791
Soap, cleaners, toilet goods....	5 590	149	309	432	976	580	768	511	1 865
Plastic products.....	6 096	216	534	474	801	821	890	576	1 784
Textiles.....	26 934	2 666	2 344	2 197	4 226	3 088	3 604	2 091	6 718
Wearing apparel, footwear and textile products.....	14 522	1 039	1 875	1 472	2 171	1 613	2 092	1 442	2 818
Food products.....	59 536	5 096	10 063	5 141	10 019	7 453	7 795	3 785	10 184
Beverages.....	13 850	876	1 841	1 081	1 741	2 129	2 475	1 283	2 424
Tobacco.....	1 928	33	131	127	235	286	420	204	492
Printing and publishing.....	21 826	1 855	2 410	1 574	3 018	2 319	3 072	2 314	5 264
Other.....	8 252	426	934	780	1 183	939	1 186	732	2 072

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1 a).

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.3 — Distribution of operatives, in November, by monthly earnings and branch of industry — 1970

BRANCH OF INDUSTRY	OPERATIVES								
	Total	Monthly earnings (Cr\$)							
		60,00- -157,50	157,51 -210,00	210,01 -262,50	262,51 -367,50	367,51 -472,50	472,51 -682,50	682,51 -892,50	892,51 and over
TOTALS	1 740 479	260 607	423 362	252 765	310 031	176 331	166 410	74 382	76 591
Non-metallic minerals manufactures	135 336	28 271	40 943	17 759	23 183	11 078	8 291	2 693	3 118
Metallurgy.....	210 892	12 493	35 749	33 215	46 613	31 980	28 148	10 636	12 058
Machinery.....	84 965	3 681	10 369	11 549	17 059	12 534	14 429	7 152	8 192
Electric and communications material.....	84 401	6 438	16 171	13 476	16 296	10 551	9 437	4 897	7 135
Transportation equipment.....	125 759	3 598	9 828	9 909	18 773	17 131	30 270	22 091	14 159
Wood and wood products, excluding furniture.....	75 579	22 933	29 143	8 925	7 658	3 607	2 454	426	433
Furniture.....	53 618	7 392	14 374	8 479	10 101	6 164	5 115	1 214	779
Paper and cardboard.....	45 891	4 489	9 851	7 090	10 549	5 273	4 865	1 830	1 944
Rubber.....	25 001	2 308	4 671	4 798	3 343	2 958	4 212	1 595	1 116
Hides and skins.....	20 212	2 867	7 870	4 121	2 909	1 079	820	292	254
Chemicals.....	78 704	5 853	12 581	9 652	17 795	10 221	9 216	4 637	8 749
Pharmaceutical products.....	18 331	1 278	4 207	3 182	3 539	2 044	1 864	794	1 423
Soap, cleaners, toilet goods.....	12 299	1 703	3 411	1 808	3 179	792	576	282	548
Plastic products.....	26 784	3 696	6 616	5 793	4 654	2 064	2 043	864	1 054
Textiles.....	272 055	55 415	66 274	44 787	55 833	23 089	17 037	4 870	4 750
Wearing apparel, footwear and textile products.....	109 314	27 497	37 684	19 761	13 670	5 259	3 358	1 025	1 060
Food products.....	219 381	51 199	84 586	30 126	29 598	11 459	7 698	2 270	2 445
Beverages.....	33 317	5 313	7 867	3 111	5 318	5 905	4 013	977	713
Tobacco.....	14 050	4 089	1 311	1 280	2 114	2 924	1 252	615	465
Printing and publishing.....	58 820	5 470	9 423	7 350	11 452	7 355	8 710	4 151	4 909
Other.....	35 770	4 624	10 333	6 594	6 395	2 864	2 602	1 071	1 287

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to table 3.4.3.1. a).



Northeastern ceramics

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.4 — Non-metallic minerals manufactures

a) Cement production, by types — 1962-1971

YEARS	PRODUCTION (Metric tons)				INDEX NUMBERS (1961=100)			
	Common	White	Blast furnace	Pozzolanic	Common	White	Blast furnace	Pozzolanic
1962.....	4 832 237	32 507	206 996	—	108	108	104	—
1965.....	5 342 214	32 311	249 248	—	119	108	126	—
1968.....	6 913 931	39 721	327 002	—	154	132	165	—
1971.....	8 630 164	44 399	806 884	321 192	193	148	407 (1)	168

SOURCE — Sindicato Nacional da Indústria do Cimento.

(1) 1970 = 100.

IRON AND STEEL INDUSTRY

The expansion of industry throughout the country should raise the domestic demand for steel up to 9.5 million tons by 1975 and 15.3 million tons by 1980, according to a market study made by the Brazilian Iron and Steel Institute (Instituto Brasileiro de Siderurgia). To keep pace with this growth, the government has established a National Iron and Steel Plan (Plano Siderúrgico Nacional), the purpose of which is to increase Brazilian steel production fourfold in the 1970/80 period. Brazil, which now ranks 20th among world steel producers, may figure among the ten largest in 1980.

Expansion of Brazilian steel production will be achieved above all by enlarging and modernizing existing plants by means of the incorporation of equipment of a high technological level and adoption of new production techniques, so as to secure maximum output of installed capacity. Starting with an ingot steel production of 5.4 million tons in 1970, the Plan provides for a production of 9 million tons by 1975 and 20 million tons by 1980. This Plan admits that installed capacity will have to increase at the rate of 12% per annum, thereby guaranteeing a supply calculated to meet domestic requirements in full, maintain the export rate, and set aside the necessary reserves to respond to peaks in the demand curve.

The results achieved by the Brazilian iron and steel industry in 1971 bear out the forecast of the National Plan. In comparison with the preceding year, ingot steel production was up 11.3%, flat rollings 16.3%, rolled sections 14.8% and pig iron 12.4%.

At present, the iron and steel industry comprises 37 steelworks, 6 rolling mills, 3 plants making pipe, accessories and iron castings, and 56 turning out pig iron exclusively. By 1976, six more steelworks will have been added to the setup, with a total scheduled capacity of 2 million tons plain and special steel ingots and sections.

The new expansion plans for existing plants extend to 9 steelworks, and some of them are already under way. These projects, designed to increase the production of ingots, semifinished stock, flat rollings and others, medium, light and heavy sections, rod for wire drawing, round bars, seamless pipe, cast and forged cylinders, light and heavy castings, in plain and special steels, distributed as follows: Aparecida, in São Paulo, 100,000 tons in 1972/73; CBUM, in Minas Gerais, 200,000 tons in 1973; COFAVI, in Rio de Janeiro, and Espírito Santo, 45,000 tons in 1972 and 410,000 in 1973; COSIN, in São Paulo, 300,000 tons in 1976; COSIPA, in São Paulo, 1 million tons in 1973 and 2.3 million in 1975; Companhia Siderúrgica Nacional (Brazilian National Steel), in Rio de Janeiro, 2.5 million tons in 1976; Metropolitana, in Guanabara, 150,000 tons in 1973; USIMINAS, in Minas Gerais, 2.4 million tons in 1974; Vilares, in São Paulo, 19,000 tons in 1973. Five semi-integrated plants for producing pig iron are already in course of construction or being remodeled.

Steel being poured to make ingots — Minas Gerais

3.4.3 — MANUFACTURING INDUSTRIES

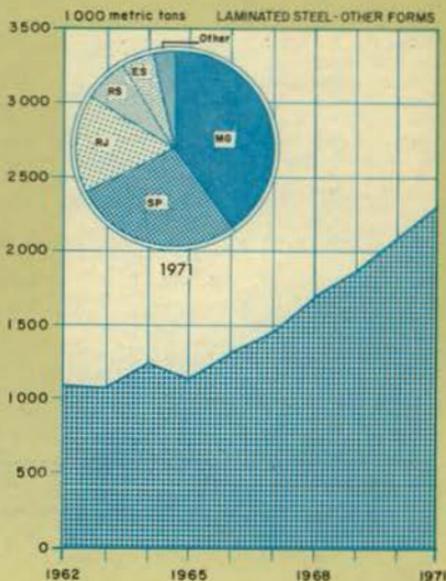
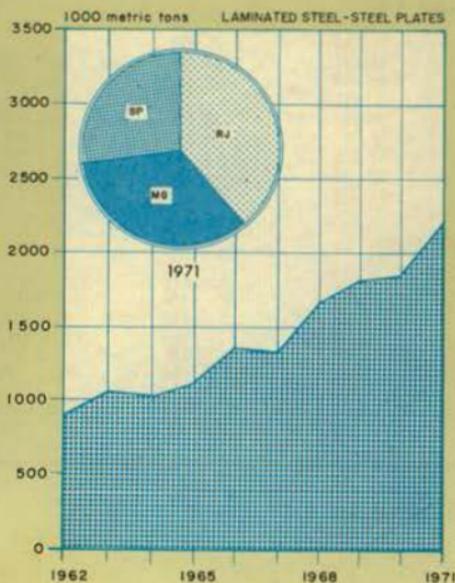
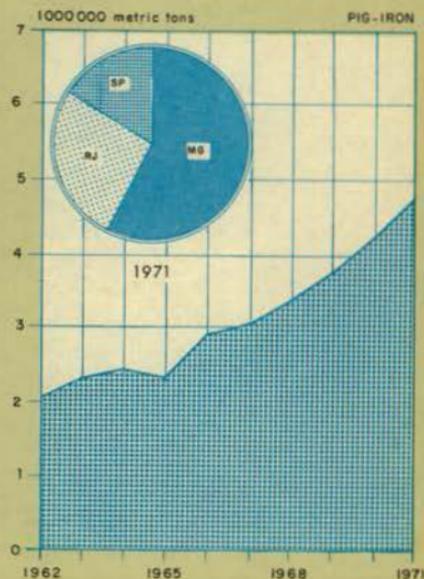
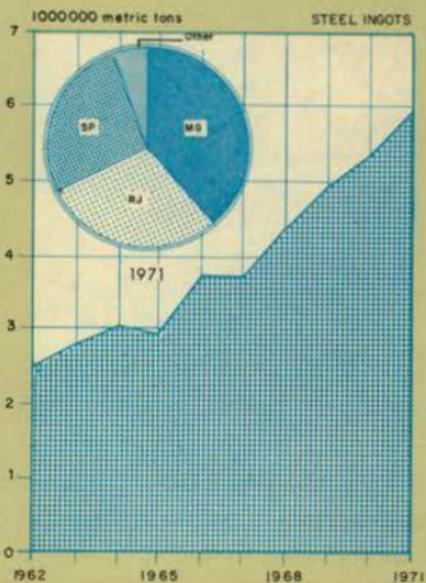
3.4.3.5 — Metallurgy

a) Iron and steel industries — 1962-1971

SPECIFICATION	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (metric tons)				
Steel ingots.....	2 565 226	2 982 994	4 453 187	5 996 711
Pig-iron.....	2 090 067	2 340 657	3 368 953	4 686 067
Rolled steel (plates and sheets)	910 578	1 119 355	1 669 038	2 222 382
Rolled steel other forms (bars, rods, angles, rails, etc.)...	1 072 572	1 119 471	1 704 511	2 318 740
Cast iron tubes.....	102 000	81 356	116 544	133 913
INDEX NUMBERS (1961=100)				
Steel ingots.....	105	122	182	245
Pig-iron.....	102	118	170	237
Rolled steel (plates and sheets)	109	134	200	266
Rolled steel other forms (bars, rods, angles, rails, etc.)..	110	115	175	238
Cast iron tubes.....	112	89	128	147

SOURCE — Instituto Brasileiro de Siderurgia.

IRON AND STEEL PRODUCTION



3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.5 — Metallurgy

b) Non-ferrous metals industries — 1967-69

SPECIFICATION	PRODUCTION		
	1967	1968	1969
QUANTITIES (metric tons)			
Alumina.....	86 943	81 011	...
Aluminium, ingots.....	44 647	51 505	56 069
Aluminium (plates).....	10 490	26 319	37 207
Arsenic.....	222	316	214
Lead.....	19 667	25 310	28 096
Copper.....	6 433	4 657	3 357
Tin.....	2 606	1 748	2 509
Gold (1).....	(2) 5 368	5 325	5 354
Silver (1).....	(2) 14 888	14 049	12 170
INDEX NUMBERS (1966=100)			
Alumina.....	127	119	...
Aluminium, ingots.....	110	126	138
Aluminium (plates).....	104	261	370
Arsenic.....	69	99	67
Lead.....	81	105	116
Copper.....	135	98	70
Tin.....	138	92	133
Gold.....	96	102	102
Silver.....	215	203	176

SOURCE — Instituto Brasileiro de Estatística.

(1) In kilograms. (2) Source-Escritório de Estatística do Ministério da Agricultura.

AUTOMOTIVE INDUSTRY

Production of automotive vehicles in 1971 totalled 515,737 units including passenger cars, trucks, buses, station wagons, vans and jeeps. This output gives Brazil the leadership of Latin America in this branch and makes the country one of the main world producers of automotive vehicles. In comparison with 1970, these data represent an increase in production of more than 24%.

The expansion of the vehicle and auto-parts industry has considerably bettered the domestic market for all types of machinery, creating favorable prospects for this industry in Brazil.

On the basis of the plans and projects for the various units, it may be affirmed that, in terms of potentiality, conditions continue to be particularly encouraging. For the 1972/1974 period, total investments of around 2,500 million cruzeiros are expected, to be used in increasing the productive capacity of the industry. When all the projects in the offing are concluded, the supply will have been boosted to about 600 units a day, which will raise the overall supply to more than 3,000 units a day in 1973. In this year, the production forecast pictures an output of some 719,000 units, which will probably rise to 884,000 the following year and 1 million by 1975. Comparatively, the automotive vehicle industry will have produced, in the same period, the equivalent of its own production in the 14 years from 1957 through 1970.

From the consumer's point of view, the special credit measures that have had positive effects in less favorable situations will certainly continue to improve the ratio of automobiles to inhabitants. Data compiled in the last Census indicate that in 1970 there was 1 automobile for every 53 inhabitants. Research on the level of states will show that some states have quite low indexes as compared with this average value, which is an indication of the concentration of vehicles in a few states. Guanabara, for instance, with 4.3 million inhabitants and 255,979 vehicles licensed, shows a ratio of one unit for every 17 inhabitants, while São Paulo, the most populous state in the Federation, has a fleet of 813,119 and a ratio of 1 to 22. In the capital city of São Paulo, however, though the number of units rises to 478,676 while the population stands at about 6 million persons, the proportion works out at 1 for every 12 inhabitants. Values for the other states are well below the levels: Rio Grande do Sul, 1 automobile to 42 inhabitants; Rio de Janeiro State, 1 to 61; Santa Catarina, 1 to 68; Paraná, 1 to 76 and Minas Gerais 1 to 85. Where other units of the Federation are concerned, the value ranges from 1:126 in Espírito Santo to 1:892 in Maranhão.

In relative numbers, the (licensed) fleet of automobiles in Guanabara corresponded to 14.3% of the total for the country and the figures for the São Paulo capital city corresponded to 26.7%.

Though the tendency, in view of the increase expected in the supply, is clearly in favor of an improvement of this ratio, a perfect balance of the market demands a restriction of the exaggerated concentration in the Southeastern Region, which continues to appropriate a large share in the market — 63% in fact of the national fleet of automobiles.

The automotive industry has carried on into this year a highly satisfactory record as a generator of wealth. With a present capital of 2,000 million cruzeiros and 72,000 workers on the payroll, this branch of industry has made purchases on the domestic market for a total 5,500 million cruzeiros, and 2,000 million cruzeiros was the amount paid in direct taxes in 1971.

3.4.3 — MANUFACTURING INDUSTRIES
3.4.3.6 — Transportation equipment
3.4.3.6.1 — MOTOR VEHICLES PRODUCTION — 1962-1971
a) Types

SPECIFICATION	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (units)				
Passenger cars.....	74 887	103 437	161 369	341 884
Trucks, medium.....	35 557	20 899	42 777	31 362
Heavy trucks and buses.....	4 113	4 060	4 261	11 899
Station wagons, pick-ups and other light commercial vehicles.....	54 390	46 720	62 442	124 548
Jeeps.....	22 247	10 057	8 087	6 044
TOTAL.....	191 194	185 173	278 936	515 737
INDEX NUMBERS (1961=100)				
Passenger cars.....	136	188	293	621
Trucks, medium.....	140	82	169	124
Heavy trucks and buses.....	80	79	83	231
Station wagons, pick-ups and other light commercial vehicles.....	128	110	147	293
Jeeps.....	126	57	46	34
TOTAL.....	131	127	191	354

SOURCE — Conselho do Desenvolvimento Industrial — Grupo Setorial VI.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.6 — Transportation equipment

3.4.3.6.1 — MOTOR VEHICLES PRODUCTION — 1962-1971

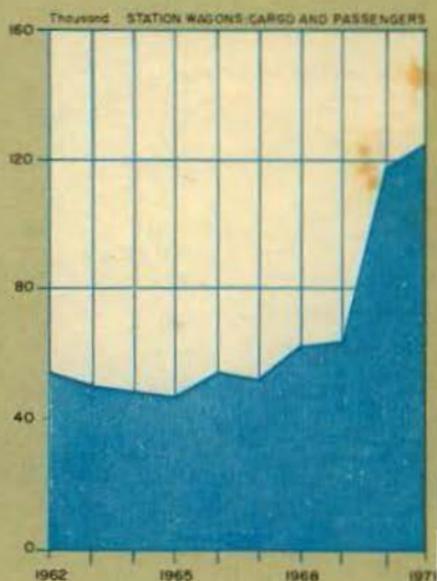
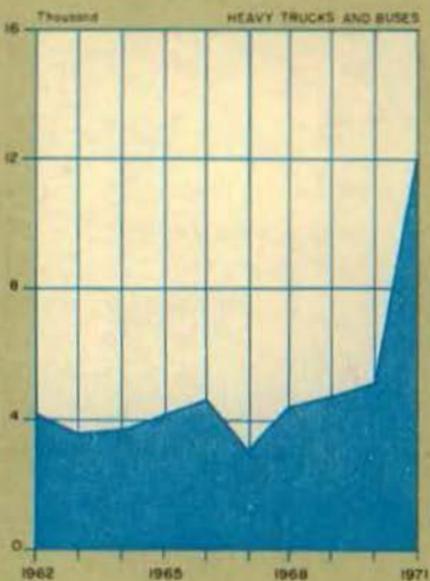
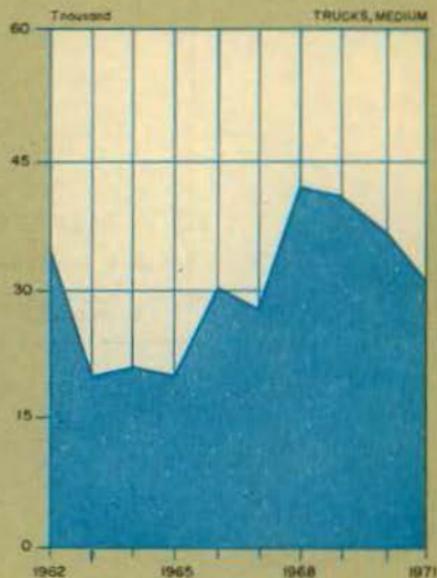
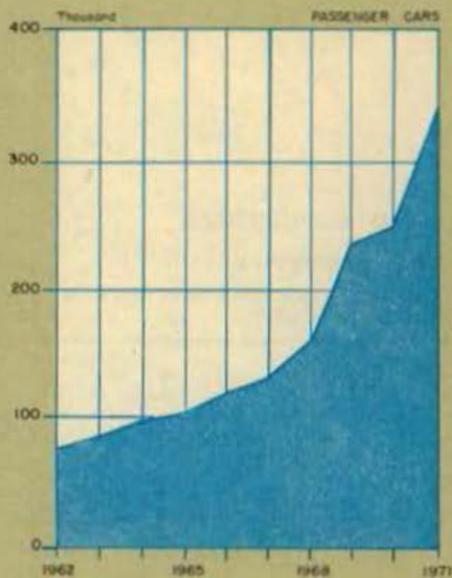
b) Producing companies

PRODUCING COMPANIES	MOTOR VEHICLES			
	1962	1965	1968	1971
Chrysler do Brasil (1).....	6 904	7 136	8 564	17 757
Fábrica Nacional de Motores.....	1 304	1 973	2 356	2 824
Ford.....	21 713	11 753	25 811	95 407
General Motors.....	18 680	10 981	24 981	83 297
International (2).....	1 281	615	—	—
Magirus Deutz (3).....	—	—	—	135
Mercedes Benz.....	8 937	6 858	16 736	19 850
Scania Vabis.....	815	800	973	1 115
Toyota.....	627	961	949	509
Vemag (4).....	15 544	15 260	—	—
Volkswagen.....	53 752	75 017	154 994	294 843
Willys (5).....	61 337	53 819	43 572	—
TOTAL.....	191 194	185 173	278 936	515 737

SOURCE — Conselho do Desenvolvimento Industrial — Grupo Setorial VI.

(1) Simca, up to 1966. (2) Production discontinued in October, 1965. (3) Production initiated in January, 1970. (4) Absorbed by Volkswagen in January, 1968. (5) Absorbed by Ford in January, 1970.

TRANSPORTATION EQUIPMENT



3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.6 — Transportation equipment

3.4.3.6.2 — PRODUCTION OF TRACTORS, CULTIVATORS AND MOTOR LEVELLING MACHINES — 1962-1971

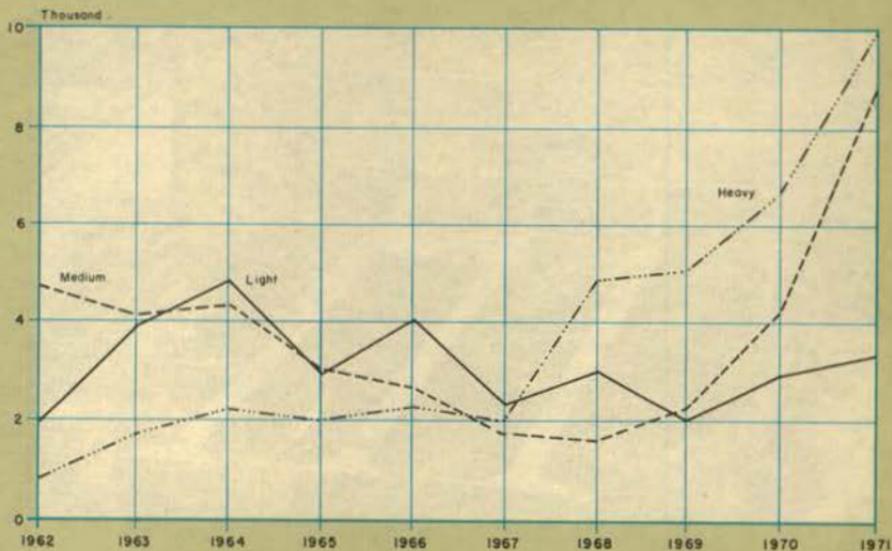
SPECIFICATION	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (units)				
Tractors				
Light.....	1 984	2 964	3 075	3 406
Medium.....	4 779	3 087	1 667	8 787
Heavy.....	1 739	2 072	4 902	9 931
Crawler tractors.....	...	...	106	374
Micro-tractors.....	...	...	147	350
Cultivators.....	—	2 383	2 465	2 190
Motor levelling machines.....	—	338	859	(1) 743
INDEX NUMBERS (1961=100)				
Tractors				
Light.....	7 936	11 856	12 300	13 624
Medium.....	304	196	106	559
Heavy.....	211	252	595	1 206
Crawler tractors (2).....	...	...	145	512
Micro-tractors (2).....	...	...	204	486
Cultivators (3).....	—	215	222	1 197
Motor levelling machines (3)...	—	112	283	245

SOURCE — Conselho do Desenvolvimento Industrial — Grupo Setorial VI.

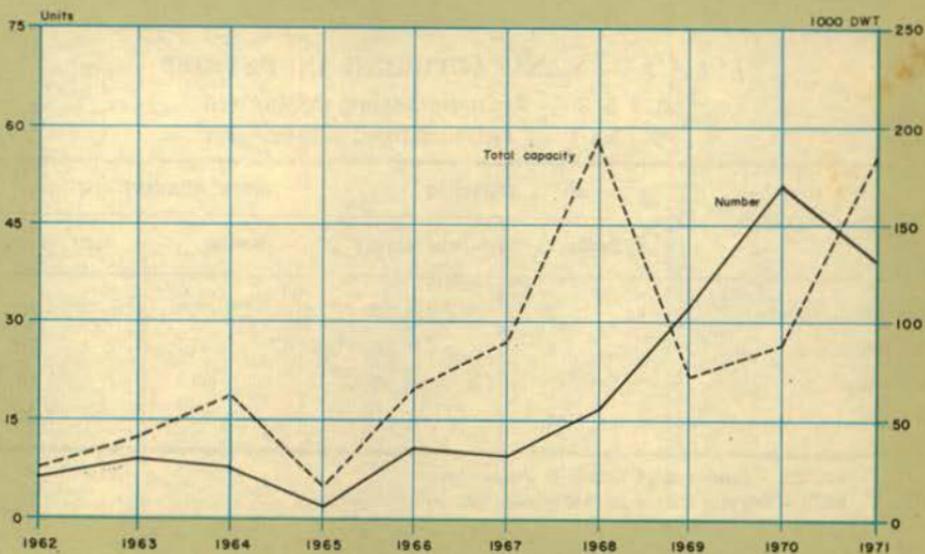
(1) Data subject to revision. (2) 1967 = 100. (3) 1963 = 100.

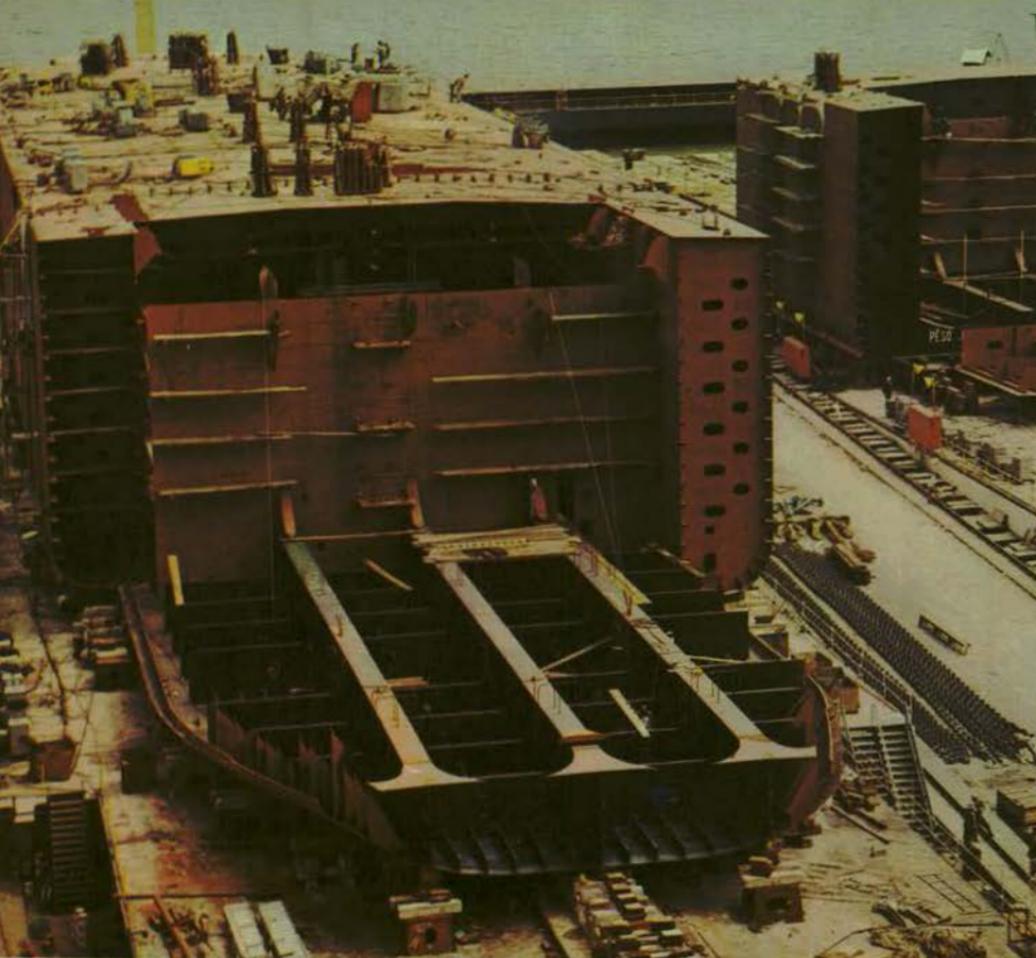
TRANSPORTATION EQUIPMENT

TRACTORS



SHIPBUILDING





Shipbuilding

3.4.3 — MANUFACTURING INDUSTRIES

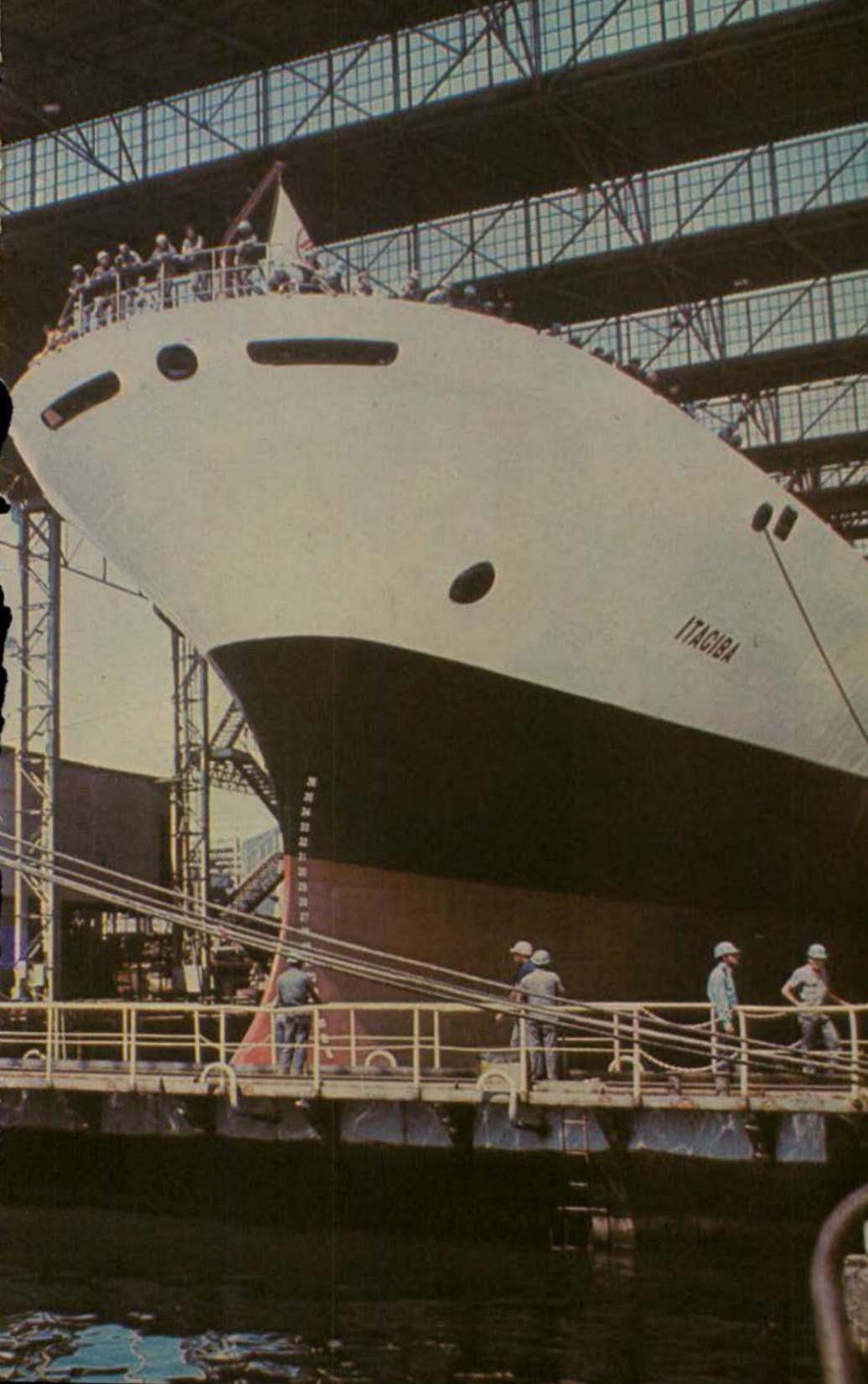
3.4.3.6 — Transportation equipment

3.4.3.6.3 — SHIPBUILDING — 1962-1971

YEARS	BOATS LAUNCHED		INDEX NUMBERS (1961=100)	
	Number	Total capacity	Number	Total capacity
1962.....	6	26 140	200	292
1965.....	2	15 740	67	176
1968.....	17	194 400	567	2 170
1971.....	40	186 532	1 333	2 082

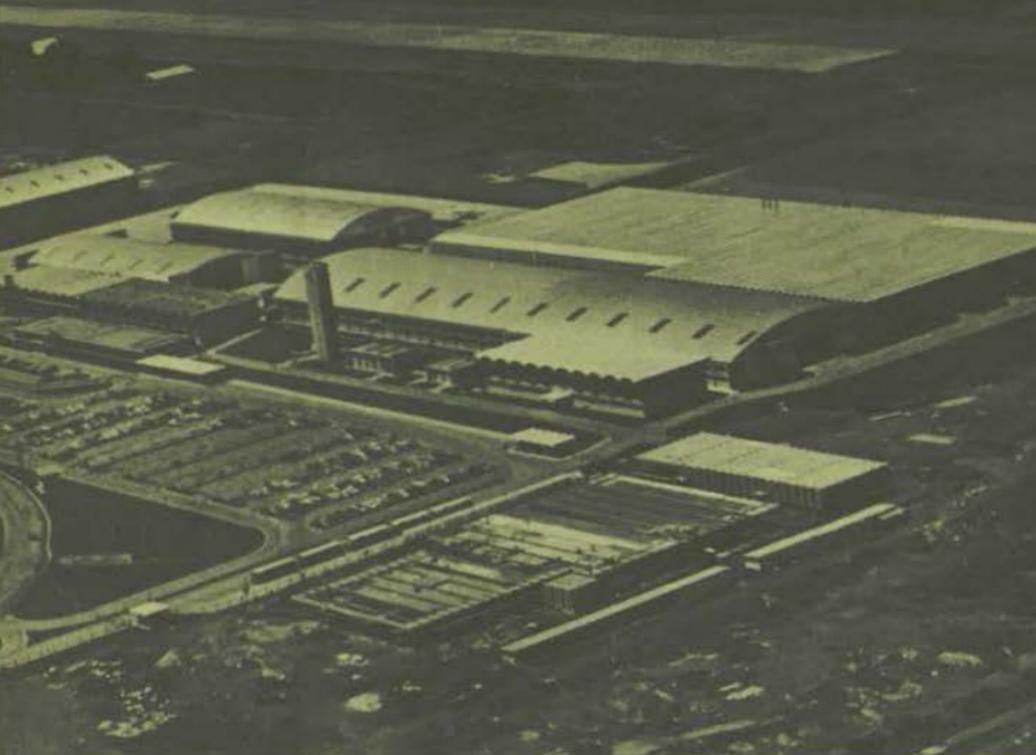
SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — Only boats with over 200 dead — weight tons have been considered.



ITACIBA

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Aircraft plant — São Paulo

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.6 — Transportation equipment

3.4.3.6.4 — AIRCRAFT PRODUCTION, BY TYPES — 1969-71

TYPE	AIRCRAFT PRODUCTION		
	1969	1970	1971
Regente C-42.....	14	—	—
Regente ELO-42.....	—	20	20
Uirapuru T-23.....	32	32	6
Urupema EMB-400 (Sail-plane).....	—	—	10
Bandeirantes EMB-110 (1).....	1	1	—
Ipanema EMB-200.....	—	1	1
Xavantes EMB-326.....	—	—	5
Universal T-25.....	—	—	5
TOTAL.....	47	54	47

SOURCE — Empresa Brasileira de Aeronáutica — EMBRAER.

(1) Manufactured by Centro Técnico Aeroespacial, Ministério da Aeronáutica.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.7 — Paper and cardboard

3.4.3.7.1 — PAPER PRODUCTION, BY TYPES — 1962-1971

SPECIFICATION	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (1 000 metric tons)				
Printing paper.....	129	190	201	269
Newsprint.....	73	124	107	119
Other.....	56	66	94	150
Writing paper.....	71	73	109	153
Wrapping paper.....	249	260	397	560
Paper for industrial purposes and other.....	53	46	72	103
Cardboard.....	58	57	107	152
TOTAL.....	560	626	886	1 237
INDEX NUMBERS (1961=100)				
Printing paper.....	96	141	149	199
Newsprint.....	118	200	173	192
Other.....	77	90	129	205
Writing paper.....	111	114	170	239
Wrapping paper.....	108	113	173	243
Paper for industrial purposes and other.....	110	96	150	215
Cardboard.....	232	228	428	608
TOTAL.....	112	125	176	246

SOURCE — Associação Nacional dos Fabricantes de Papel.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.8 — Rubber

a) Production, by types — 1962-1971

SPECIFICATION	PRODUCTION (Metric tons)			
	1962	1965	1968	1971
Rubber, vegetable solid.....	19 803	26 852	22 023	22 573
Latex.....	1 938	1 471	935	1 658
TOTAL.....	21 741	28 323	22 958	24 231
Rubber, reclaimed.....	11 432	12 572	18 868	22 018

SOURCE — Superintendência da Borracha.

NOTE — Data exclude balata sorva, ucuquirama, messaranduba, chicle and other gums from non-elastic resins.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.8 — Rubber

b) Production of tires and inner tubes — 1962-1971

SPECIFICATION	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (units)				
Tires				
For motor vehicles.....	3 858 775	4 128 853	6 580 800	9 382 611
Trucks and buses.....	1 101 568	954 851	1 530 962	1 612 499
Passenger cars.....	2 154 287	2 603 528	4 162 096	6 555 175
Other.....	602 920	570 474	887 742	1 214 937
For animal-drawn vehicles.....	11 785	12 517	11 595	10 522
For bicycles.....	2 578 712	1 728 805	3 111 281	3 722 706
Inner tubes				
For motor vehicles (1).....	2 873 489	2 519 971	4 472 253	6 438 100
For bicycles.....	2 550 126	1 564 876	2 461 879	3 211 689
INDEX NUMBERS (1961=100)				
Tires				
For motor vehicles.....	117	125	200	285
Trucks and buses.....	110	96	153	161
Passenger cars.....	117	142	227	357
Other.....	123	124	193	264
For animal-drawn vehicles.....	104	110	102	93
For bicycles.....	100	67	121	145
Inner tubes				
For motor vehicles (1).....	115	101	178	257
For bicycles.....	106	65	103	134

SOURCE — Superintendência da Borracha.

(1) Data include inner tubes for animal drawn vehicles.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.9 — Hides and skins

3.4.3.9.1 — PRODUCTION OF HIDES AND SKINS, BY TYPES — 1962-1970

SPECIFICATION	PRODUCTION							
	Quantities (Metric tons)				Index numbers (1961=100)			
	1962	1965	1968	1970	1962	1965	1968	1970
HIDES								
Cattle	168 545	188 724	216 281	234 903	99	111	127	138
Raw	68 642	81 452	108 503	113 673	98	117	155	163
Dried	19 211	20 799	20 900	21 320	101	109	110	112
Salted	80 692	86 473	86 878	99 910	99	106	106	122
Pig	6 798	5 829	6 552	6 307	100	86	97	93
Raw	427	919	1 395	1 168	173	372	565	473
Dried	3	1	—	0	50	17	—	0
Salted	6 078	4 901	5 145	5 134	95	76	80	80
Frozen	290	8	12	5	246	7	10	4
SKINS								
Sheep	2 404	3 147	3 232	3 306	112	146	150	154
Raw	-832	980	839	977	132	156	133	155
Dried	1 428	1 625	1 709	1 765	107	121	128	132
Salted	144	542	684	564	80	303	382	315
Goats	1 460	1 579	1 573	1 643	102	110	110	115
Raw	630	652	606	624	102	105	98	101
Dried	778	907	938	968	102	119	123	127
Salted	52	20	29	51	108	42	60	106
Cow's foetus	69	50	45	29	101	74	66	43
Raw	2	2	2	4	100	100	100	200
Dried (1)	1	—	—	—	100	—	—	—
Salted	66	48	43	25	100	73	65	379
Pig, edible (1)	442	370	882	989	100	84	200	224
Raw	1	3	19	11	100	300	1 900	1 100
Dried (2)	—	—	—	1	—	—	—	100
Salted	414	338	849	974	100	82	205	235
Frozen	27	29	14	3	100	107	52	11
Rabbit	1	10	16	4	50	500	800	200
Raw	1	10	16	4	100	1 000	1 600	400
Dried	0	0	—	—	100	100	—	—
Salted	0	—	0	0	100	—	100	0

SOURCE — Escritório de Estatística do Ministério da Agricultura.
 (1) 1962 = 100. (2) 1969 = 100.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.1 — PRODUCTION OF VEGETABLE OILS AND FATS

a) Summary — 1962-1971

SPECIFICATION	PRODUCTION							
	Quantities (Metric tons)				Percentage			
	1962	1965	1968	1971(1)	1962	1965	1968	1971 (1)
Edible oils	258 851	262 460	292 494	514 897	55,7	46,8	49,9	66,8
Peanut.....	90 349	102 885	68 786	134 287	19,4	18,3	11,7	17,4
Cottonseed.....	133 503	103 169	137 415	126 728	28,7	18,4	23,4	16,5
Corn (maize).....	4 234	5 130	7 412	2 280	0,9	0,9	1,3	0,3
Soybeans.....	26 300	45 540	75 716	246 652	5,7	8,1	12,9	32,0
Other.....	4 465	5 736	3 165	4 950	1,0	1,1	0,6	0,6
Oils and fats from nuts	71 402	84 582	84 104	84 472	15,4	15,1	14,4	11,0
Babassu.....	59 601	54 102	65 393	72 201	12,8	9,6	11,2	9,4
Dende.....	5 126	8 491	10 191	5 200	1,1	1,5	1,7	0,7
Licuri.....	539	2 703	2 738	3 240	0,1	0,5	0,5	0,4
Other.....	2 965	3 648	2 438	3 831	0,7	0,7	0,4	0,5
Mixed.....	3 171	15 638	3 344	—	0,7	2,8	0,6	—
Babassu and tucum.....	2 479	15 271	1 849	—	0,5	2,7	0,3	—
Other.....	692	367	1 495	—	0,2	0,1	0,3	—
Essential oils	2 073	1 783	4 267	3 058	0,4	0,3	0,7	0,4
Peppermint.....	1 498	1 005	2 811	...	0,3	0,2	0,5	...
Sassafras.....	327	392	1 075	1 800	0,1	0,1	0,2	0,3
Other.....	248	386	381	1 258	0,0	0,0	0,0	0,1
Paint drier oils	32 995	21 575	33 896	5 334	7,1	3,8	5,8	0,7
Linseed.....	6 808	8 214	2 956	3 239	1,5	1,5	0,5	0,4
Oiticica.....	25 141	12 118	29 403	193	5,4	2,1	5,0	0,0
Other.....	1 046	1 243	1 537	1 902	0,2	0,2	0,3	0,3
Other oils and fats	99 230	191 002	171 254	162 623	21,4	34,0	29,2	21,1
Cocoa (butter).....	17 629	18 065	20 092	21 413	3,8	3,2	3,4	2,8
Castor oil.....	79 336	170 671	144 641	132 436	17,1	30,4	24,7	17,2
Other.....	2 265	2 266	6 521	8 774	0,5	0,4	1,1	1,1
TOTAL	464 551	561 402	586 015	770 384	100,0	100,0	100,0	100,0

SOURCE — Escritório de Estatística do Ministério da Agricultura.

(1) Data subject to revision.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.1 — PRODUCTION OF VEGETABLE OILS AND FATS

b) Quantities produced, by States and Territories — 1971

STATES AND TERRITORIES	PRODUCTION		STATES AND TERRITORIES	PRODUCTION	
	Quantities (Metric tons)	Percentage		Quantities (Metric tons)	Percentage
COCOA BUTTER			LINSEED OIL		
Bahia.....	21 410	100,0	Rio Grande do Sul.....	3 234	100,0
Pará.....	3	0,0	Santa Catarina.....	5	0,0
BRAZIL	21 413	100,0	BRAZIL	3 239	100,0
PEANUT OIL			CASTOR OIL		
São Paulo.....	104 938	78,1	São Paulo.....	62 012	46,8
Paraná.....	29 228	21,8	Bahia.....	28 778	21,7
Other.....	121	0,1	Pernambuco.....	32 100	24,3
BRAZIL	134 287	100,0	Ceará.....	8 610	6,5
			Other.....	936	0,7
BABASSU OIL			BRAZIL	132 436	100,0
Maranhão.....	39 508	54,7	CORN (MAIZE) OIL		
Ceará.....	13 671	18,9	São Paulo.....	1 499	65,7
Piauí.....	11 398	15,8	Paraná.....	781	34,3
Other.....	7 624	10,6	BRAZIL	2 280	100,0
BRAZIL	72 201	100,0	OITICICA OIL		
COTTONSEED OIL			Rio Grande do Norte.....	193	100,0
São Paulo.....	68 971	54,4	BRAZIL	193	100,0
Paraná.....	14 144	11,2	SOYBEANS OIL		
Ceará.....	16 814	13,3	Rio Grande do Sul.....	114 735	46,5
Minas Gerais.....	5 390	4,2	Paraná.....	68 573	27,8
Paraíba.....	9 560	7,5	São Paulo.....	56 731	23,0
Pernambuco.....	5 910	4,7	Other.....	6 613	2,7
Rio Grande do Norte.....	4 717	3,7	BRAZIL	246 652	100,0
Other.....	1 222	1,0	DENDE OIL		
BRAZIL	126 728	100,0	Bahia.....	5 200	100,0
DENDE OIL			BRAZIL	5 200	100,0

SOURCE — Escritório de Estatística do Ministério da Agricultura.

NOTE — Data subject to revision.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.2 — MAIN PETROLEUM PRODUCTS

a) Summary — 1962-1971

PRODUCTS	PRODUCTION			
	1962	1965	1968	1971
QUANTITIES (m ³)				
Asphalt (1).....	235 669	291 834	673 024	575 553
Liquefied gas (1).....	296 851	572 313	664 051	772 530
Gasoline, Automotive "A".....	4 069 764	5 766 010	7 281 550	9 696 213
Gasoline, Automotive "B".....	188 574	58 132	165 587	527 370
Fuel oils (1).....	5 843 163	5 226 690	6 953 937	9 285 661
Diesel oil.....	3 120 375	4 403 438	5 580 192	7 066 253
Kerosene.....	693 876	655 605	848 177	715 603
Kerosene, jet fuel.....	—	—	381 923	901 478
INDEX NUMBERS (1961=100)				
Asphalt.....	117	145	335	287
Liquefied gas.....	108	208	241	281
Gasoline, Automotive "A".....	112	158	200	266
Gasoline, Automotive "B".....	155	48	136	434
Fuel oils.....	137	122	163	217
Diesel oil.....	137	194	246	311
Kerosene.....	111	105	135	114
Kerosene, jet fuel (2).....	—	—	1 654	3 905

SOURCE — Conselho Nacional do Petróleo.

(1) Metric tons. (2) 1966=100.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.2 — MAIN PETROLEUM PRODUCTS

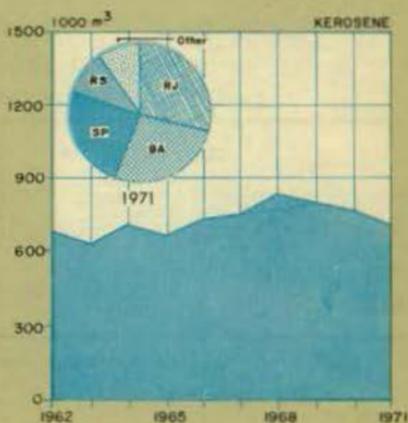
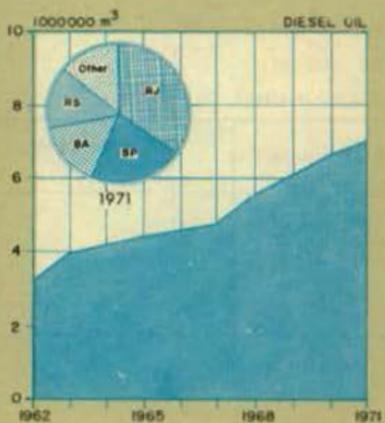
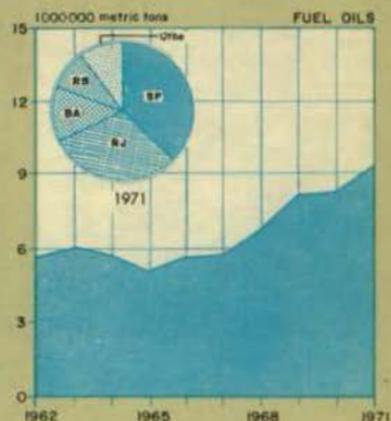
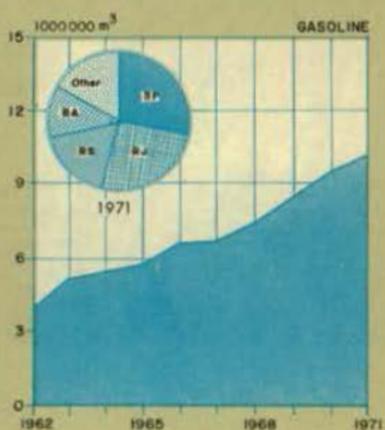
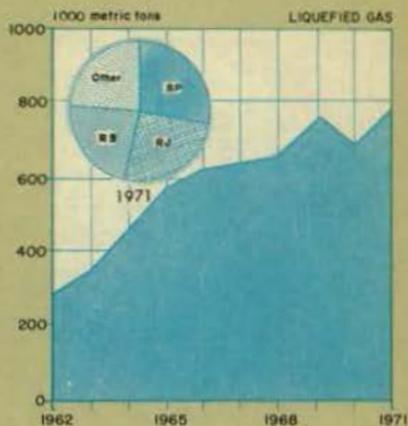
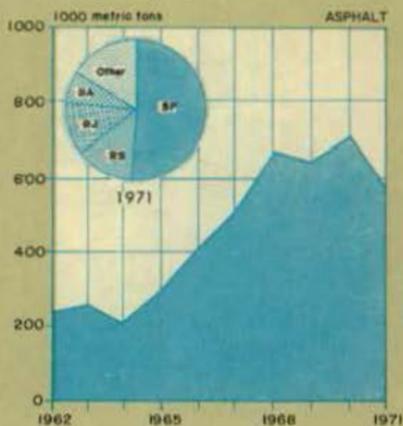
b) Refineries — 1971

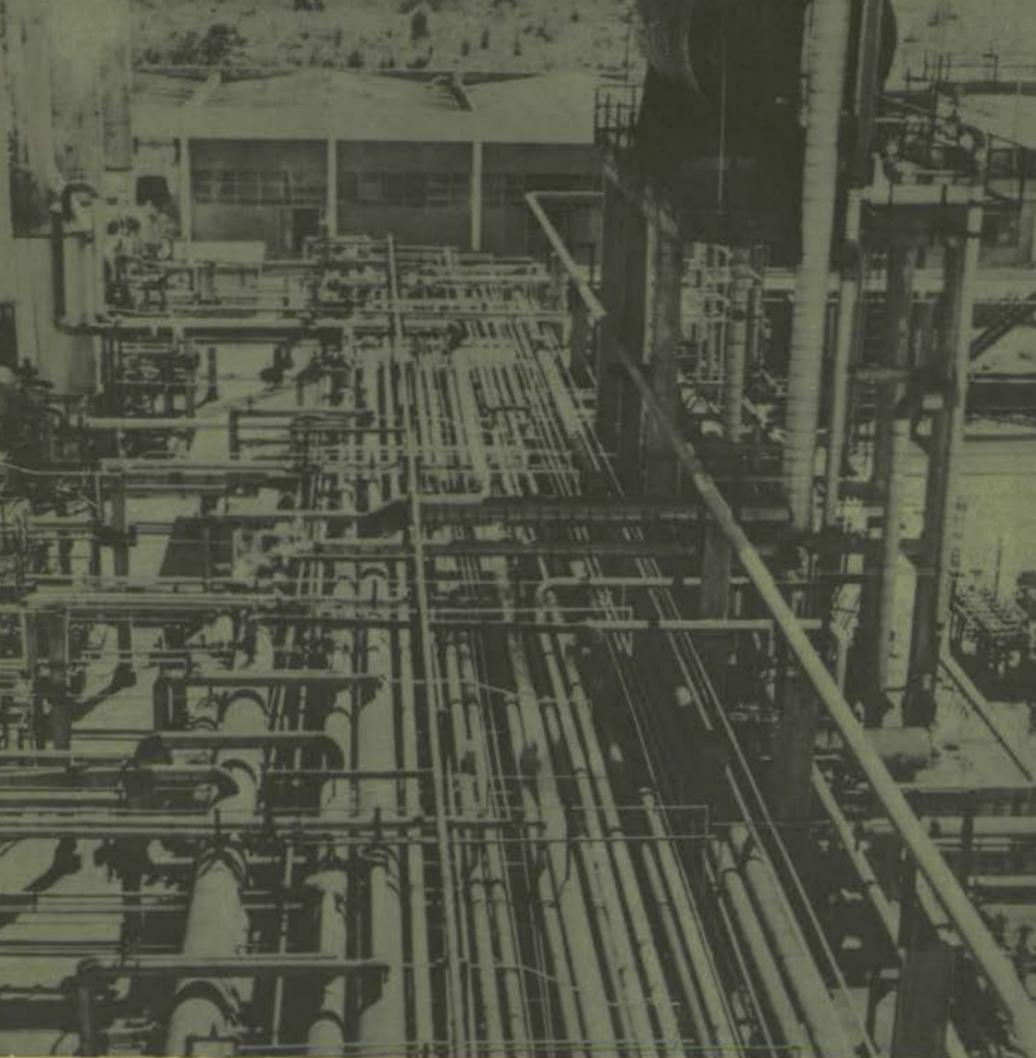
REFINERIES	PRODUCTION		REFINERIES	PRODUCTION	
	Quantities (m ³)	Percentage		Quantities (m ³)	Percentage
ASPHALT (1)			FUEL OILS (1)		
Presidente Bernardes (SP).....	293 240	50,9	Duque de Caxias (RJ).....	2 876 425	31,0
Duque de Caxias (RJ).....	67 590	11,7	Presidente Bernardes (SP).....	2 790 774	30,1
Gabriel Passos (MG).....	47 401	8,2	Landulfo Alves (BA).....	1 157 601	12,5
Alberto Pasqualini (RS).....	47 007	8,2	Alberto Pasqualini (RS).....	716 514	7,7
Asfor (CE).....	45 763	8,0	União (SP).....	671 687	7,2
Landulfo Alves (BA).....	41 094	7,1	Gabriel Passos (MG).....	655 632	7,1
Other.....	33 458	5,9	Other.....	417 028	4,4
TOTAL.....	575 553	100,0	TOTAL.....	9 285 661	100,0
LIQUEFIED GAS (1)			DIESEL OIL		
Duque de Caxias (RJ).....	199 417	25,8	Duque de Caxias (RJ).....	2 440 945	34,5
Alberto Pasqualini (RS).....	175 413	22,7	Presidente Bernardes (SP).....	1 529 261	21,6
Gabriel Passos (MG).....	152 048	19,7	Landulfo Alves (BA).....	1 051 419	14,9
Presidente Bernardes (SP).....	131 921	17,1	Gabriel Passos (MG).....	877 055	12,4
União (SP).....	84 311	10,9	Alberto Pasqualini (RS).....	828 651	11,7
Other.....	29 420	3,8	Other.....	338 922	4,9
TOTAL.....	772 530	100,0	TOTAL.....	7 066 253	100,0
GASOLINE, AUTOMOTIVE "A"			KEROSENE		
Duque de Caxias (RJ).....	2 508 974	25,9	Duque de Caxias (RJ).....	204 917	28,6
Presidente Bernardes (SP).....	1 838 624	19,0	Landulfo Alves (BA).....	197 858	27,6
Alberto Pasqualini (RS).....	1 531 414	15,8	Presidente Bernardes (SP).....	168 722	23,6
Gabriel Passos (MG).....	1 179 883	12,2	Alberto Pasqualini (RS).....	46 262	6,5
Landulfo Alves (BA).....	1 151 810	11,9	Gabriel Passos (MG).....	44 608	6,2
União (SP).....	800 071	8,2	Other.....	53 236	7,5
Other.....	685 437	7,0	TOTAL.....	715 603	100,0
TOTAL.....	9 696 213	100,0			
GASOLINE, AUTOMOTIVE "B"			KEROSENE, JET FUEL		
Duque de Caxias (RJ).....	226 094	42,9	Duque de Caxias (RJ).....	526 560	58,4
Presidente Bernardes (SP).....	136 654	25,9	Landulfo Alves (BA).....	166 495	18,5
Gabriel Passos (MG).....	75 588	14,3	Presidente Bernardes (SP).....	115 787	12,8
Alberto Pasqualini (RS).....	51 007	9,7	Gabriel Passos (MG).....	51 025	5,7
Landulfo Alves (BA).....	30 054	5,7	Other.....	41 611	4,6
Other.....	7 973	1,5	TOTAL.....	901 478	100,0
TOTAL.....	527 370	100,0			

SOURCE — Conselho Nacional do Petróleo.

(1) Metric tons.

PETROLEUM PRODUCTS





Petrochemical plant

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.3 — PRODUCTION OF COKE FROM COAL — 1965-1971

YEARS	PRODUCTION (Metric tons)	INDEX NUMBERS (1965=100)
1965.....	1 159 420	100
1968.....	1 704 809	147
1971.....	1 823 368	157

SOURCE — Conselho Nacional do Petróleo, Serviço de Combustíveis Sólidos.

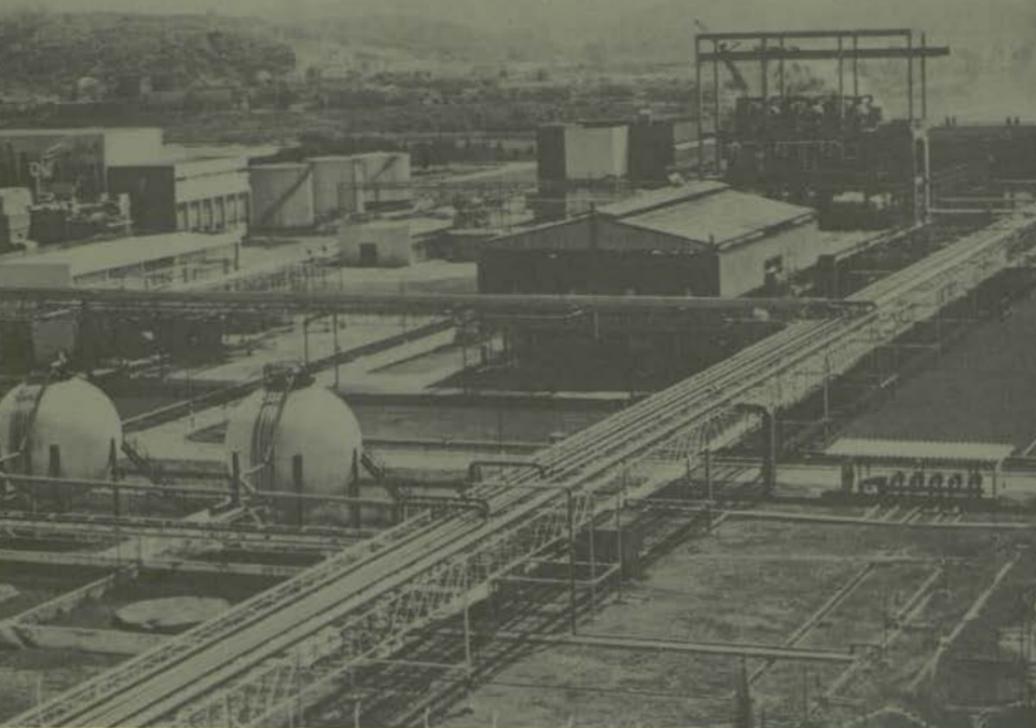
PETROCHEMICAL INDUSTRY

The Brazilian petrochemical industry began to be set up little more than fifteen years ago and has already reached a position of importance in the development process of the country. Conditions were not, in fact, satisfactory for petrochemistry to make headway in Brazil until 1955 when the President Bernardes Refinery in the state of São Paulo was completed. This unit, with a present capacity of 175,000 barrels a day, was designed for the thermal cracking process, so as to produce a greater volume of residual gases to be used as raw materials for the petrochemical industry.

Nowadays, the petrochemical complex in Brazil, with more than 30 units in operation, is the largest in Latin America and holds tenth place among world producers. With the group of state and private enterprises in operation and those that are in an advanced stage of construction, the Brazilian petrochemical industry is closely approaching the targets set in 1964 by the Executive Group of the Chemical Industry (Grupo Executivo da Indústria Química — GEIQUIM) with a view to installing large-scale chemical industries in the country.

A decisive contribution was made to the encouragement of the petrochemical industry in Brazil in 1967, when Petrobrás Química S.A. — PETROQUISA was founded as a subsidiary of Petrobrás but allowed more flexibility as regards state monopoly. With the purpose of developing the petrochemical industry in the country, PETROQUISA has entered into association with various Brazilian and foreign groups, and its stockholding participation in the Petroquímica União group is worthy of note. The line of production of these enterprises includes: ethene, propene, butadiene, butenes, pentenes, benzene, toluene, xylenes, styrenes and polyethylene.

Besides broadening its participation in the Brazilian petrochemical industry, PETROQUISA has become one of the main factors in guaranteeing and incentivating investments in this sector. In 1970, PETROQUISA formed a pilot enterprise — COPENE, Cia. Petroquímica do Nordeste — to develop studies of the petrochemical setup in the Northeast, which is to be the second petrochemical pole in the country. The designation of the states of São Paulo and Bahia as the principal centers of the Brazilian petrochemical industry is justifiable for numerous reasons: in São Paulo there is a far-reaching economic infrastructure functioning in terms of capital, labor and raw materials, which guarantees support for enterprises and their multiplication. In the Bahia area, the economic and fiscal incentives channel to the region savings and surplus technical manpower from the south, and moreover there are reserves of economically utilizable natural gas in the area that have hitherto been found in no other state of the Union.



Petrochemical plant

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.4 — PRODUCTION OF SYNTHETIC RUBBER — 1969-71

YEARS	PRODUCTION (Metric tons)	
	Elastomers	Polybutadiene
1969.....	49 863	10 164
1970.....	60 385	11 322
1971.....	65 203	12 747

SOURCES — Petróleo Brasileiro S.A. (PETROBRÁS) and Companhia Pernambucana de Borracha Sintética (COPEBRO).

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.10 — Chemical industry

3.4.3.10.5 — PRODUCTION OF PHOSPHATIC AND NITROGENOUS FERTILIZERS — 1969-71

FERTILIZERS	PRODUCTION (Metric tons)		
	1969	1970	1971
GROSS PRODUCTION			
Soluble phosphates	567 239	721 736	933 672
Dicalcium phosphate.....	2 000	2 570	2 614
Superphosphate.....	486 869	594 230	671 661
Superphosphate (30%).....	50 000	52 000	82 490
Superphosphate (triple).....	—	—	26 582
Thermophosphate.....	28 370	23 500	36 592
Ammonium phosphate.....	—	49 436	113 733
Rock phosphates	125 170	172 968	212 422
Natural phosphate	95 960	141 956	176 146
Ground phosphate.....	29 210	31 012	36 276
Nitrogenous	27 548	46 365	157 400
Ammonium sulphate	7 415	7 134	8 386
Calcium nitrate	20 133	21 790	60 914
Ammonium nitrate.....	—	17 441	88 100
Ammonium phosphate.....	—	(1) ...	(1) ...
NUTRIENTS CONTENT			
Soluble phosphates (P₂O₅)	118 080	162 027	230 994
Dicalcium phosphate..	600	771	784
Superphosphate.....	97 373	118 685	134 331
Superphosphate (30%).....	15 000	15 600	24 747
Superphosphate (triple).....	—	—	12 228
Thermophosphate.....	5 107	4 230	6 587
Ammonium phosphate.....	—	22 741	52 317
Rock phosphates (P₂O₅)	42 349	58 989	72 536
Natural phosphate..	33 586	49 685	61 651
Ground phosphate.....	8 763	9 304	10 885
Nitrogenous (N)	6 956	22 177	67 711
Ammonium sulphate	1 520	1 462	1 719
Calcium nitrate	5 436	5 883	16 447
Ammonium nitrate.....	—	5 843	29 073
Ammonium phosphate.....	—	8 989	20 472

SOURCE — Sindicato da Indústria de Matérias-Primas para Inseticidas e Fertilizantes, no Estado de São Paulo.

(1) Quantity included in soluble phosphates.



ULTRAFERTIL

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.11 — Food industries

3.4.3.11.1 — MEAT PRODUCTION — 1962-1970

SPECIFICATION	PRODUCTION			
	1962	1965	1968	1970
QUANTITIES (metric tons)				
Beef	1 183 275	1 312 119	1 506 905	1 663 587
Pork.....	223 330	226 742	272 143	290 974
Ham	8 785	8 463	11 064	12 021
Mutton.....	26 448	32 551	34 622	34 453
Goat	18 790	21 077	21 321	21 963
Sausages.. ..	79 818	71 745	92 324	100 341
Poultry.....	7 852	18 036	43 317	85 661
Rabbit.. ..	6	24	55	42
Meat extracts.....	308	780	722	660
Meat pastries.....	275	314	695	1 059
INDEX NUMBERS (1961=100)				
Beef.... ..	99	110	126	139
Pork.....	117	119	143	130
Ham	119	115	150	137
Mutton	108	133	141	141
Goat.....	107	120	121	125
Sausages.....	121	109	140	152
Poultry.....	100	231	554	1 095
Rabbit.....	50	200	458	350
Meat extracts.....	58	146	135	124
Meat pastries.....	108	123	273	415

SOURCE — Escritório de Estatística do Ministério da Agricultura.

3.4.3 — MANUFACTURING INDUSTRIES

3.4.3.11 — Food industries

3.4.3.11.2 — FISH PRESERVATION — 1962-1969

SPECIFICATION	QUANTITIES (Metric tons)				INDEX NUMBERS (1961=100)			
	1962	1965	1968	1969	1962	1965	1968	1969
Fish	83 406	103 076	101 399	135 023	130	160	157	210
Salted and dried.....	48 311	51 342	43 660	59 832	117	125	106	145
Fish.....	42 860	42 829	39 860	54 666	117	117	109	149
Crustacea.....	5 345	8 441	3 713	5 064	123	195	86	117
Molluscs.....	6	38	33	51	86	543	471	729
Water mammal.....	100	34	54	51	55	19	30	28
Frozen or chilled.....	11 826	19 002	33 422	44 582	135	217	381	508
Fish.....	7 810	15 121	27 102	34 200	136	263	472	596
Crustacea.....	4 016	3 881	6 306	10 375	133	128	208	343
Molluscs (1).....	—	—	14	7	—	—	100	50
Pickled.....	1 708	786	1 117	1 017	164	76	108	98
Smoked.....	98	66	134	122	68	46	92	84
Canned.....	21 463	31 880	23 066	29 470	162	241	174	223
Other products	10 219	1 608	7 117	9 901	134	21	94	130
From fish.....	1 382	751	4 926	7 298	62	34	220	326
From whales.....	8 837	857	2 191	2 603	165	16	41	49

SOURCE — Escritório de Estatística do Ministério da Agricultura.

(1) 1966=100.

3.4.3.11.3 — SUGAR PRODUCTION IN PLANTS — 1962-1971

YEARS	QUANTITIES (Metric tons)	INDEX NUMBERS (1961 = 100)
1962.....	3 238 061	97
1965.....	4 660 396	139
1968.....	4 204 238	125
1971.....	5 081 434	151

SOURCE — Instituto do Açúcar e do Alcool.

3.4.4 — CONSTRUCTION

3.4.4.1 — Building permits, by "Municipios" of capital cities — 1971

a) Number of permits issued, areas of plots and buildings

"MUNICIPIOS" OF CAPITAL CITIES	NUMBER OF PERMITS ISSUED	AREA OF PLOTS (Sq. meters)	AREA OF BUILDINGS (Sq. meters)						VALUE (Cr\$ 1 000)
			Total	Residen- tial	Non-residential				
					Rooms	Shops	Gara- ges	Other	
Porto Velho, RO .	171	29 937	13 543	7 404	3 357	2 490	223	69	3 176
Rio Branco, AC....	94	28 454	20 259	4 429	12 751	649	1 144	1 286	7 400
Manaus, AM	2 019	413 498	308 224	229 302	63 609	10 514	2 737	2 062	122 465
Boa Vista, RR	68	11 929	5 567	4 299	557	612	99	—	1 395
Belém, PA	557	158 618	235 315	189 136	20 126	13 864	8 803	3 386	73 613
Macapá, AP	167	33 313	16 082	11 483	3 023	1 508	68	—	4 583
São Luis, MA	569	111 137	54 150	40 905	8 833	2 007	2 330	75	12 691
Teresina, PI	211	60 232	34 310	20 196	11 839	119	1 116	1 040	9 124
Fortaleza, CE	1 793	573 152	315 936	248 611	40 411	11 816	13 833	1 265	84 369
Natal, RN	257	88 844	60 373	44 022	10 974	5 347	30	—	15 440
João Pessoa, PB . .	718	155 125	68 793	47 176	19 028	1 731	858	—	15 088
Recife, PE	2 085	580 800	458 371	287 108	125 789	10 762	27 813	6 899	127 726
Maceió, AL	1 603	239 843	115 772	95 853	15 177	876	2 762	1 104	18 983
Aracaju, SE	1 110	228 943	99 642	95 234	4 243	165	—	—	19 229
Salvador, BA	1 140	375 271	697 944	572 742	65 502	6 745	29 164	23 791	292 695
Belo Horizonte, MG	1 203	404 104	468 166	259 281	104 811	28 238	53 012	22 824	164 878
Vitória, ES	646	131 425	106 639	85 010	5 429	6 142	4 471	5 587	34 589
Niterói, RJ	282	88 945	139 955	90 227	16 514	5 354	22 487	5 373	48 130
Rio de Janeiro, GB .	4 041	1 329 318	1 880 225	1 218 565	285 121	61 759	173 881	140 899	788 296
São Paulo, SP	22 110	5 650 457	9 944 729	6 096 837	1 519 558	432 759	1 289 142	606 433	4 001 816
Curitiba, PR	1 910	704 129	567 498	358 324	114 333	32 403	51 003	11 435	172 610
Florianópolis, SC . .	859	211 842	169 621	133 692	15 293	13 078	4 770	2 788	49 320
Porto Alegre, RS . . .	3 192	994 819	853 293	486 610	142 148	62 002	141 815	20 718	282 355
Cuiabá, MT	784	59 543	56 807	46 754	7 976	1 609	468	—	12 305
Goiânia, GO	428	183 900	102 810	48 026	31 922	13 574	9 062	226	27 422
Brasília, Federal District	1 965	872 459	1 477 456	863 154	310 745	64 776	123 688	115 093	609 903

SOURCE — Instituto Brasileiro de Estatística.

3.4.4 — CONSTRUCTION

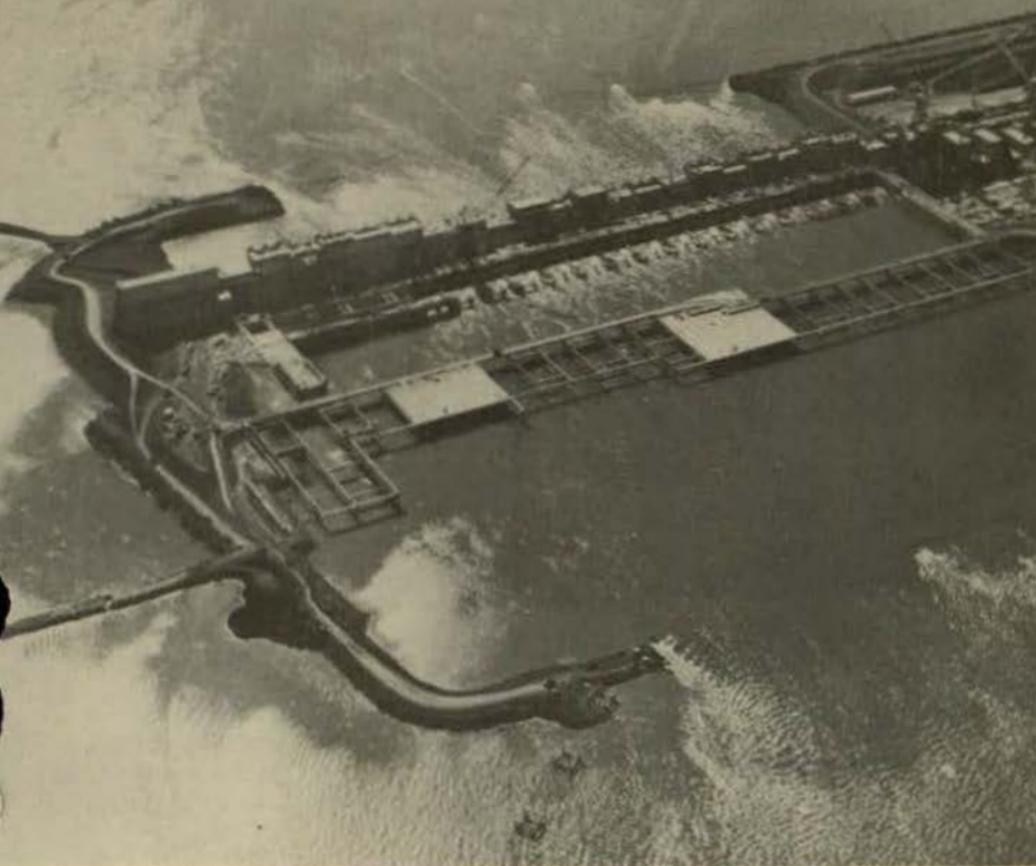
3.4.4.1 — Building permits, by "Municípios" of capital cities — 1971

b) Number of dwellings and area of buildings

"MUNICÍPIOS" OF CAPITAL CITIES	DWELLINGS			AREA OF BUILDINGS (Sq. meters)				
	Total	Houses	Apartments	Total	Residential	Industrial	Commercial	Other
Porto Velho, RO	133	130	3	13 543	7 993	—	5 171	379
Rio Branco, AC	76	75	1	20 259	4 461	2 562	475	12 761
Manaus, AM	3 211	1 862	1 349	308 224	235 969	18 531	47 574	6 150
Boa Vista, RR	60	60	—	5 567	4 674	—	893	—
Belém, PA	1 745	467	1 278	235 315	207 885	10 691	8 215	8 524
Macapá, AP	160	159	1	16 082	12 126	2 658	807	493
São Luís, MA	546	545	1	54 150	42 374	7 204	3 092	1 480
Teresina, PI	177	177	—	34 310	21 050	1 409	3 542	8 309
Fortaleza, CE	1 796	1 674	122	315 936	263 022	21 027	24 341	7 546
Natal, RN	273	227	46	60 373	44 320	—	8 712	7 341
João Pessoa, PB	673	672	1	68 793	47 494	16 045	3 021	2 233
Recife, PE	3 118	1 843	1 275	458 371	310 070	36 490	69 354	42 457
Maceió, AL	1 561	1 549	12	115 772	97 921	1 676	7 879	8 296
Aracaju, SE	1 184	1 085	99	99 642	95 290	80	3 139	1 123
Salvador, BA	4 836	767	4 069	697 944	625 921	27 837	33 923	10 263
Belo Horizonte, MG	2 574	927	1 647	468 166	312 265	13 545	95 955	46 401
Vitória, ES	1 178	563	615	106 639	96 300	536	6 029	3 774
Niterói, RJ	1 134	214	920	139 955	115 134	766	18 633	5 422
Rio de Janeiro, GB	17 123	2 963	14 160	1 880 225	1 488 476	98 000	213 108	80 641
São Paulo, SP	66 260	19 159	47 101	9 944 729	7 873 106	632 154	1 214 005	225 464
Curitiba, PR	3 196	1 557	1 639	567 498	415 204	66 474	58 692	27 128
Florianópolis, SC	1 552	753	799	169 621	144 802	3 459	15 665	5 695
Porto Alegre, RS	6 379	2 673	3 706	853 293	563 729	40 108	126 372	123 084
Cuiabá, MT	773	760	13	56 807	48 398	970	6 783	656
Goiânia, GO	367	325	42	102 810	54 022	11 795	30 185	6 808
Brasília, Federal District	6 664	1 507	5 157	1 477 456	1 066 612	24 117	156 976	229 751

SOURCE — Instituto Brasileiro de Estatística.

NOTE — Criterion adopted for the breakdown of major groups of area utilization was the following. Residential includes buildings chiefly used for residential purposes (houses, houses with shops, apartments, apartments with shops and/or offices, asylums and orphanages, convents and abbeys, dormitories for students, hotels, boarding houses, and motels); industrial includes buildings for industrial purposes; commercial includes warehouses, auditoria, banks, entertainment buildings, offices with or without shops and/or living quarters, radio and television studios, garages with or without shops and/or offices, and/or living quarters, shops, markets and supermarkets, and service stations for motor vehicles; and other includes buildings for other purposes, such as public administration, libraries, clubs, sports and entertainment associations, religious associations, hospitals, nursing homes and sanitarium, maternity wards and day nurseries, health posts and outpatient wards, as well as undefined or ill-defined purposes.



Hydraulic power plant — Ilha Solteira

ELECTRIC POWER

In the course of 1971, the installed power capacity increased 13%, reaching a per capita ratio of 136 w. The chain of good results attained in the last few years corresponds to the successive goals fixed in the First National Economic and Social Development Plan 1972/74, which provides for an increase in installed power capacity of around 49% in the 1970/74 period.

The Brazilian electric power companies that expanded were the following: Cia. de Eletricidade de Manaus, with the Manaus Thermal Electric Power Plant (installed capacity 9 MW with 1 generating unit); Centrais Elétricas do Pará, with the Miramar-Diesel Plant (installed capacity 12 MW, with 5 generating units); Cia. Hidro Elétrica do São Francisco (CHESF), with the Paulo Afonso

Plant (installed capacity 412 MW, with 4 generating units); Centrais Elétricas de Minas Gerais S/A (CEMIG), with the Jaguara Plant installed capacity 456 MW, with 4 generating units); Centrais Elétricas de São Paulo S/A (CESP), with the Xavantes Plant (installed capacity 200 MW, with 2 generating units); Cia. Força e Luz do Paraná, with the Guaricana Plant (installed capacity 16.5 MW, with 1 generating unit); Cia. Paranaense de Energia Elétrica, with the Capivari-Cachoeira Plant (installed capacity 123.5 MW, with 2 generating units); Centrais Elétricas Matogrossenses S/A, with the Casca III Plant (installed capacity 8 MW, with 2 generating units); and CESP again, with the Jupia Plant (installed capacity 200 MW, with 2 generating units).

Given the importance of electric power as a factor for speeding up the economic development process, outstanding interest attaches to the fact that the new policy adopted by the government involves the creation of large power plants, with a view to a reduction in costs and consequent alteration of the panorama of power supply in Brazil.

The growth of the demand for electric power to meet the requirements of Brazilian industry and the spread of the development process has been making it indispensable not only to prepare long-range plans, but also to review them constantly so as to adjust to prevailing trends.

The following is a summary of the projects of Eletrobrás to be completed in the 1971/74 period:

Northern Region — Construction of: a new 36-MW steam-electric plant in Manaus; the 50-MW Tapanã steam-electric plant in Belém; and the Curuá-Una 20 MW hydroelectric plant in Santarém. All three are of vital significance, for they will be serving isolated systems, whose power supply depends solely on local sources.

Northeastern Region — Expansion of the Presidente Castelo Branco (formerly Boa Esperança) plant on the river Parnaíba by an extra 54 MW, and the Paulo Afonso plant, on the São Francisco, in the third and last stage, 824 MW, bringing the total capacity of the latter up to 1,440 MW. The expansion of these two great plants will continue to equate supply to the exceptional growth rate of demand now a feature of the Northeast.

West Central Region — Expansion of the plants: Cachoeira Dourada by 290 MW, to serve Goiás and the Federal District; Casca III, by 8 MW; and Mimoso by 17.5 MW, the two latter in Mato Grosso.

Southeastern Region — Completion of the plants: Estreito and Furnas, both in Minas Gerais, receiving respectively 350 and 300 more megawatts, Jupia on the São Paulo-Mato Grosso state line, and Xavantes, São Paulo, raising the capacity in either case by an extra 200 MW; expansion of the thermo-electric plant of Santa Cruz, in Guanabara, giving it 400 more MW; new hydro plants at Porto Colômbia, in Minas Gerais, with 320 MW; Mascarenhas, Espírito Santo, with 115 MW; and Ilha Solteira, São Paulo, with an initial 480 MW and an eventual power capacity of 3,200 MW. All will be interconnected to the great Southern Center grid, which serves the states of São Paulo, Guanabara, Minas Gerais, Rio de Janeiro, Espírito Santo and the southern parts of Goiás, including the Federal District, and Mato Grosso, and the north of Paraná.



Hydraulic power plant — Paulo Afonso

3.4.5 — PUBLIC UTILITIES

3.4.5.1 — Electric power

3.4.5.1.1 — INSTALLED CAPACITY — 1962-1971

YEARS	INSTALLED CAPACITY		
	Total	Hydroelectric	Thermoelectric
ABSOLUTE NUMBERS (MW)			
1962.....	5 729	4 126	1 603
1965.....	7 411	5 381	2 020
1968.....	8 555	6 183	2 372
1971.....	12 670	10 244	2 426
INDEX NUMBERS (1961=100)			
1962.....	110	108	115
1965.....	142	142	145
1968.....	164	152	170
1971.....	243	269	174

SOURCE — Departamento Nacional de Águas e Energia Elétrica.

3.4.5 — PUBLIC UTILITIES

3.4.5.1 — Electric power

3.4.5.1.2 — NET PRODUCTION

a) Summary — 1962-1971

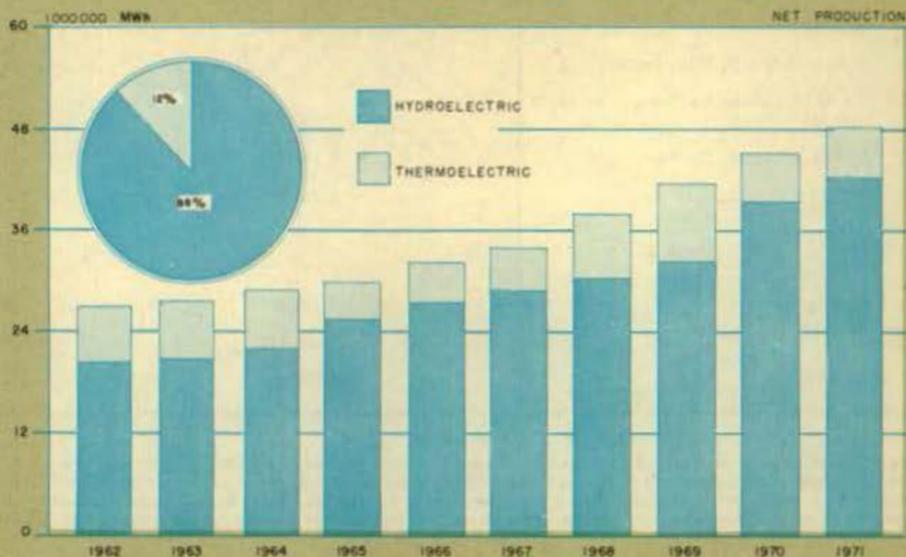
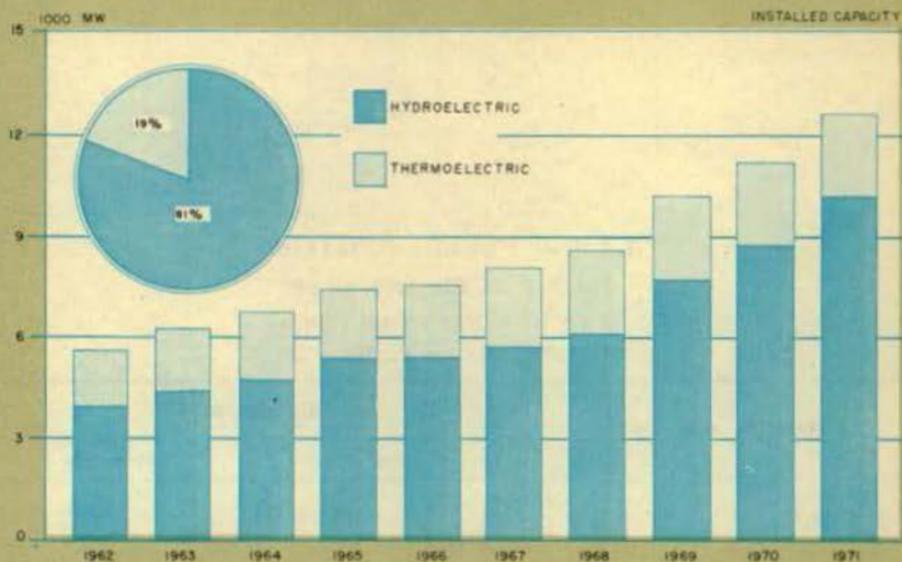
YEARS	NET PRODUCTION		
	Total	Hydroelectric	Thermoelectric
ABSOLUTE NUMBERS (MWh)			
1962.....	27 158 430	20 661 871	6 496 559
1965.....	30 128 144	25 515 330	4 612 814
1968.....	38 181 436	30 550 419	7 631 017
1971.....	50 988 470	43 274 424	7 714 046
INDEX NUMBERS (1961=100)			
1962.....	111	109	119
1965.....	123	135	85
1968.....	156	161	140
1971.....	209	228	141

SOURCE — Departamento Nacional de Águas e Energia Elétrica.

Hidraulic power plant — Jupiaá



ELECTRIC POWER



3.4.5 — PUBLIC UTILITIES

3.4.5.1 — Electric power

3.4.5.1.2 — NET PRODUCTION

b) Enterprises and groups — 1971

ENTERPRISES AND GROUPS	NET PRODUCTION	
	Quantity (MWh)	Percentage
Public Utility (1)	47 350 309	92,9
Private enterprises	11 378 318	22,3
Light Serviços de Eletricidade S.A. (and subsidiaries).....	10 592 229	20,8
Other.....	786 089	1,5
State companies.....	35 868 074	70,4
Grupo Eletrobrás.....	18 091 248	35,5
Centrais Elétricas de Minas Gerais.....	3 490 329	6,9
Cia. de Energia Elétrica do Estado do Rio Grande do Sul.....	1 536 717	3,0
Centrais Elétricas de São Paulo.....	9 140 134	17,9
Other.....	3 609 646	7,1
Government.....	103 917	0,2
Self-Producing (2)	3 331 061	6,5
Other (3)	307 100	0,6
TOTAL	50 988 470	100,0

SOURCE — Departamento Nacional de Águas e Energia Elétrica.

(1) Public utilities are companies established for the purpose of producing, transmitting, and distributing electric power for the service of the public or for the commerce of power in the area of their concession. They include all private and state companies to which a concession was granted for electric power servicing. (2) Self-producing are industrial concerns to which a concession was granted to produce electric power for their own use, and sometimes for furnishing public utilities and for the commerce of such energy. (3) Estimated.

FOREIGN TRADE

Encouraging results were obtained by Brazil in the exchange of trade during 1971, crowning with success the policy developed by the authorities responsible for this economic sector, vital to the progress of the country.

Among the numerous highlights, may be mentioned the following points: total trade reached 6,600 million dollars, signifying an increase of 19% over the figures for 1970; the volume exchanged rose to 76.7 million tons (+ 12.8% as compared with the previous year, revealing a permanent improvement in the freight transportation capacity of Brazilian seaports and airports; sales of industrialized products amounted to 822 million dollars as compared with 665 million in 1970, accounting for 28.3% of total exports, a share equivalent to that of coffee in the export field; careful selection of imports, assigning 40% to producer goods, 48% to inputs and raw materials, and only 12% to consumer goods, a breakdown that is not easily paralleled by other countries; the total for freights in both directions was about 870 million dollars (24% over the 1970 figures), 811 million corresponding to ocean freight in which the share that fell to the Brazilian flag amounted to 42% (+ 5% as compared with that obtained the previous year).

In international circles, the most striking event was the resurgence of the monetary crisis that culminated in August with virtual devaluation of the dollar and a consequent rise in the value of the currencies of certain countries

that have been accumulating reserves by reason of the heavy credit balances in their balance of payments. This crisis struck a severe blow at world trade, which, from an annual growth rate of 14%, slipped down to less than 10% in 1971.

The decision of the United States to charge a 10% surtax on all imports, from August 15 on, brought about a general shrinkage of world trade, seriously affecting exports from developing countries, made up almost entirely of primary products (raw materials and foodstuffs), triggering a drop in the prices of many such commodities.

The reaction on Brazilian exports, which had been advancing steadily over the last 2 years at a rate of 20%, was to depress this rate to an increase of a bare 6%, less than expected, but even so higher than the average of the Latin American countries which, taken as a whole, failed to achieve a 4% rise over 1970 figures. The reason for this 6% advance lay in the exports of industrialized products (up 24% from 1970), for primary products were down 3%, mainly owing to the fall in coffee and cocoa prices.

The volume exported amounted to 43.8 million tons (31 million of which were accounted for by shipments of iron ore), which brought in a total 2,904 million dollars. Among the goods that sold best, special emphasis should be laid on the results obtained, as regards both solid increment and excellent prospects on the international market, by exports of the following products: footwear, orange juice, peanut oil, frozen and industrialized meat, soybeans and by-products, frozen shrimp, and petroleum derivatives.

Being indispensable to the country's development program, imports of goods, as in the previous year, expanded amazingly (+ 29%) reaching a volume of 32.9 tons, which cost Brazil 3,250 million dollars FOB. This result was due chiefly to imports of machinery and equipment (capital goods) and production maintenance goods, with a respective rise of 30% and 28% as compared with 1970.

Considered separately, the main item in the list of Brazilian imports was crude oil, the domestic consumption of which rose at a higher rate than domestic production, with the result that, in 1971, more than 250 million dollars were spent on purchasing this raw material. The opposite occurred with wheat in grain, the second product of importance to be bought abroad, for with the strong increase in national production, the outlay on imports of the commodity was lowered to about 100 million dollars.

The United States continue to be our major trading partner, representing 28.3% of our total import-export exchange (more than 1,700 million dollars' worth) and being at the same time the best buyer of Brazilian goods (26.2% of the total) and the largest supplier of goods to Brazilian importers (30.2% of the total). The succeeding most important trading partners are: West Germany (11%), Japan (6.2%), United Kingdom (5.3%), Argentina (5.2%), Italy (5.2%) and the Netherlands (3.7%). In terms of regional economic markets, the European Economic Community (EEC) stands out as our best customer, followed by the United States, the European Free Trade Association (EFTA), the Latin American Free Trade Association (LAFTA), Japan and Eastern Europe (COMECON).

The price recovery at the end of the year, improvement in the working of the monetary system, withdrawal of the United States surtax, and the effective start made with the General System of Preferences in favor of developing countries, are grounds for forecasting a reasonable increase in Brazilian exports in 1972.

3.5 — TRADE

3.5.1 — FOREIGN TRADE

3.5.1.1 — Exports: weighted indexes of quantities and values — 1962-1970

SPECIFICATION	EXPORT INDEXES (1955=100)							
	"Quantum"				Average unit values			
	1962	1965	1968	1970	1962	1965	1968	1970
GENERAL	122,0	144,6	177,3	238,2	70,1	77,3	74,4	80,3
Partial								
Consumer's goods								
Non-durable								
Excluding coffee.....	127,0	278,9	315,8	645,6	74,3	72,5	94,3	77,0
Coffee	119,6	98,4	134,8	117,1	63,7	85,1	68,1	95,0
Durable	37,8	133,6	48,3	50,0	44,2	38,8	69,2	75,2
Raw materials and intermediate products								
Metal products.....	322,9	601,7	701,6	1 411,9	85,4	73,6	64,2	69,3
Other products.....	106,9	157,9	175,8	257,0	78,7	71,5	79,1	76,0

SOURCE — Instituto Brasileiro de Estatística.

- NOTES** — 1. Annual synthetic index numbers are weighted arithmetic average indexes computed from a sample of 454 elements (commodities or commodity groups) for imports, and of 117 elements for exports, both sufficiently representative, since they contribute 80.5 percent and 85.9 percent respectively to the total dollar values of each current of trade.
2. In the computation of the index the base year adopted was 1955, and as criterion of weighting that of Laspeyres, for quantum, and of Paasche's for unit average values.
3. Indexes for some specific groups have been omitted because they were little significant due to the small number of products included in those groups and to the irregularity of their exports.

3.5.1 — FOREIGN TRADE

3.5.1.2 — Imports: weighted indexes of quantities and values — 1962-1970

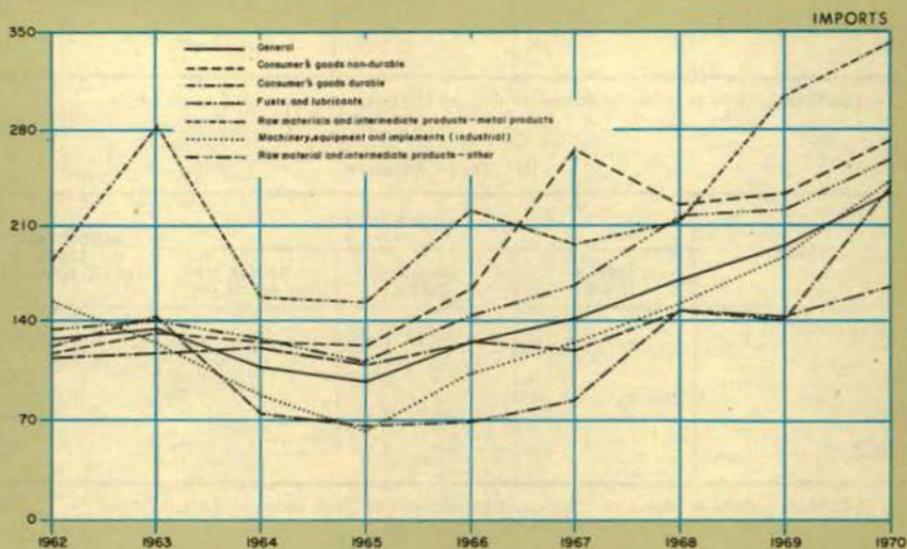
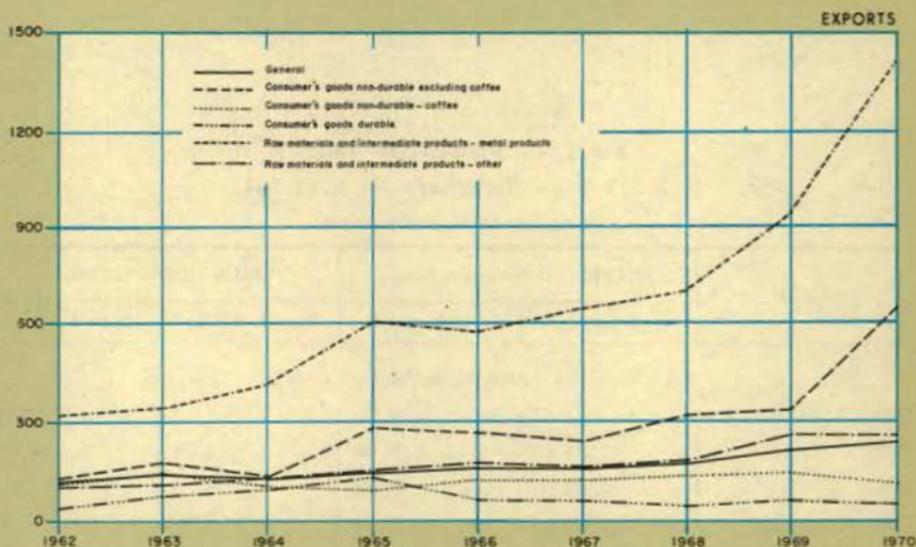
SPECIFICATION	IMPORT INDEXES NUMBERS (1955=100)							
	"Quantum"				Average unit values			
	1962	1965	1968	1970	1962	1965	1968	1970
GENERAL	125,5	94,9	170,4	231,3	89,8	88,3	95,6	93,8
Partial								
Consumer's goods								
Non-durable	118,4	122,3	222,7	271,7	67,8	65,2	78,4	81,8
Durable	121,4	67,7	145,2	233,4	71,0	108,5	147,0	130,1
Fuels and lubricants	111,6	109,1	144,9	164,9	78,9	71,1	73,1	73,5
Raw materials and intermediate products								
Metal products	181,5	151,7	210,8	341,1	77,2	88,4	106,6	114,7
Other products	136,4	110,1	215,5	259,0	80,3	83,2	71,9	65,8
Building materials	68,4	51,5	160,0	228,5	139,5	121,4	130,7	130,6
Machinery, equipment and implements								
Agricultural	104,7	70,2	135,2	165,3	111,4	130,3	134,2	158,3
Industrial	156,0	66,8	149,5	236,3	109,7	132,8	165,4	147,9
Transports and communication	63,8	26,2	54,3	195,6	153,8	143,9	152,9	90,1

SOURCE — Instituto Brasileiro de Estatística.

NOTE — See note to preceding table.

FOREIGN TRADE

"Quantum" indexes 1955 = 100



3.5.1 — FOREIGN TRADE
3.5.1.3 — Summary — 1962-1971

a) Quantity and value

YEARS	QUANTITY (1 000 metric tons)		VALUE (US\$ 1 000 000)	
	Exports	Imports	Exports (F.O.B.)	Imports (C.I.F.)
ABSOLUTE NUMBERS				
1962.....	12 361	16 786	1 214	1 475
1965.....	19 679	16 633	1 595	1 096
1968.....	23 487	23 648	1 881	2 132
1971.....	43 824	32 922	2 904	3 701
INDEX NUMBERS (1961=100)				
1962.....	97	106	87	101
1965.....	155	105	114	75
1968.....	185	149	134	146
1971.....	345	208	207	253

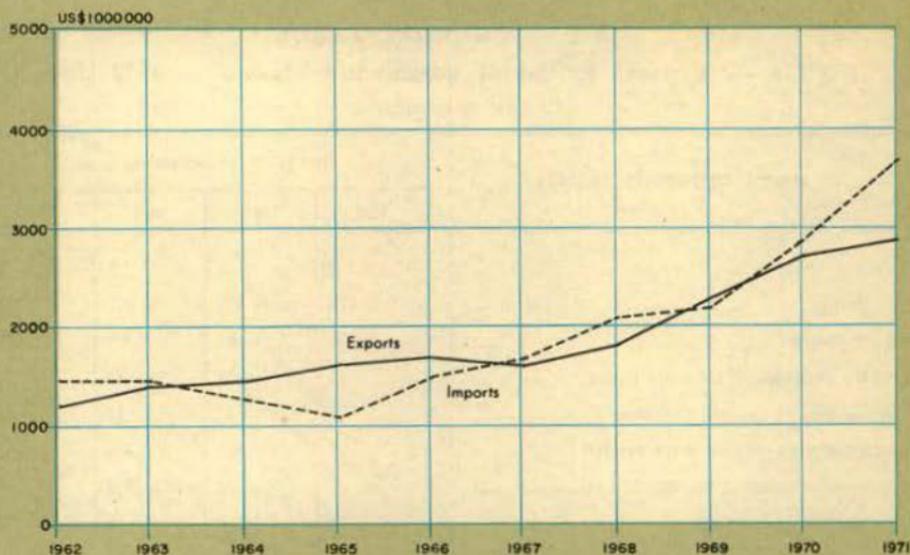
SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

b) Trade balance

YEARS	VALUE (US\$ 1 000 000)			PERCENTAGE OF EXPORTS OVER IMPORTS
	Exports (F.O.B.)	Imports (C.I.F.)	Surplus (+) or deficit (-)	
1962.....	1 214	1 475	- 261	82,3
1965.....	1 595	1 096	+ 499	145,5
1968.....	1 881	2 132	- 251	88,2
1971.....	2 904	3 701	- 797	78,5

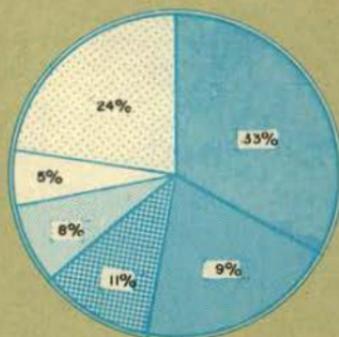
SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

FOREIGN TRADE

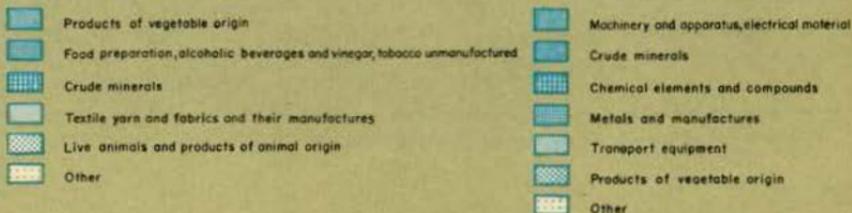
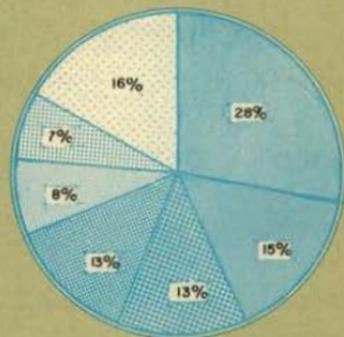


CHIEF COMMODITY GROUPS - 1971

EXPORTS



IMPORTS



3.5.1 — FOREIGN TRADE

3.5.1.4 — Exports by major commodity classes — 1962-1970

a) Quantity

MAJOR COMMODITY CLASSES	QUANTITY (1 000 metric tons)			
	1962	1965	1968	1970
Live animals	0	3	3	2
Raw materials	10 125	15 618	18 061	32 975
Food and beverages	2 178	3 498	4 925	5 888
Chemicals; pharmaceutical and similar products.....	21	30	43	94
Machinery, vehicles, parts and accessories	8	12	11	32
Manufactured goods classified by raw material	25	515	436	838
Miscellaneous manufactured articles.....	1	2	2	8
Gold. Coins. Special transactions	3	4	6	133
TOTAL	12 361	19 682	23 487	39 970

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

b) Value

MAJOR COMMODITY CLASSES	VALUE (US\$ 1 000 000)			
	1962	1965	1968	1970
Live animals	0	1	1	1
Raw materials	387	487	526	815
Food and beverages	792	987	1 212	1 590
Chemicals; pharmaceutical and similar products.....	15	14	26	39
Machinery, vehicles, parts and accessories.....	12	29	41	97
Manufactured goods classified by raw material	5	63	58	149
Miscellaneous manufactured articles	1	3	5	22
Gold. Coins. Special transactions.....	2	11	12	26
TOTAL	1 214	1 595	1 881	2 739

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

3.5.1 — FOREIGN TRADE

3.5.1.5 — Exports, by commodity groups — 1971

COMMODITY GROUPS	QUANTITY		VALUE	
	Metric tons	Percentage	US\$ 1 000	Percentage
Special transactions	254 948	0,6	87 491	3,0
Live animals and products of animal origin.....	156 893	0,4	151 431	5,2
Products of vegetable origin	3 126 811	7,1	962 512	33,1
Animal and vegetable oils and fats, processed; waxes of animal or vegetable origin.....	227 828	0,5	78 752	2,7
Food preparations, alcoholic beverages and vinegar; tobacco, unmanufactured	3 523 455	8,0	561 294	19,3
Crude minerals	34 408 809	78,5	322 858	11,1
Chemical elements and compounds	56 072	0,1	49 359	1,7
Artificial plastic materials, ether and esters from cellulose, artificial resins and products, and natural or synthetic rubber and products	10 707	0,0	10 523	0,4
Hides, skins, fur skins, leather manufactures, saddlery, travel goods, hand bags and similar articles.....	38 376	0,1	37 524	1,3
Wood and cork manufactures, charcoal, fiber manufactures and mats	899 188	2,1	114 689	4,0
Pulp, paper and manufactures	118 464	0,3	19 246	0,7
Textile yarn and fabrics and their manufactures.....	488 093	1,1	231 661	8,0
Footwear, hats and: elated articles, umbrellas, feather and made-up articles, artificial flowers, hair articles, fans	7 428	0,0	29 862	1,0
Mineral manufactures made-up of stone, gypsum, cement, asbestos, mica and other related materials; pottery; glass and glassware..	36 934	0,1	17 639	0,6
Pearls, precious and semi-precious stones, jewellery and goldsmiths and silversmiths wares, trinkets and coins.....	2 034	0,0	17 884	0,6
Metals and manufactures	416 988	1,0	67 618	2,3
Machinery and apparatus, electrical material.....	34 835	0,1	105 583	3,6
Transport equipment	13 310	0,0	27 249	1,0
Optical, photographic and cinematographic supplies, measuring and controlling apparatus, scientific and medical instruments, watches and clocks, musical instruments, image and sound recorders and reproducers	420	0,0	3 303	0,1
Firearms and ammunition.....	445	0,0	3 349	0,1
Commodities not classified by kind	2 245	0,0	3 910	0,2
Artworks, collector's pieces, antiques	3	0,0	119	0,0
TOTAL.....	43 824 286	100,0	2 903 856	100,0

SOURCE — Banco do Brasil, Carteira do Comércio Exterior.

3.5.1 — FOREIGN TRADE

3.5.1.6 — Imports, by major commodity classes — 1962-1970

a) Quantity

MAJOR COMMODITY CLASSES	QUANTITY (1 000 metric tons)			
	1962	1965	1968	1970
Live animals	7	1	3	6
Raw materials	12 692	12 991	16 986	20 977
Food and beverages	2 508	2 188	3 125	2 515
Chemicals; pharmaceutical and similar products.....	772	883	2 032	2 943
Machinery, vehicles, parts and accessories	207	88	195	275
Manufactured goods classified by raw material	593	475	1 293	1 339
Miscellaneous manufactured articles.....	6	5	12	15
Gold. Coins. Special transactions	1	1	1	4
TOTAL	16 786	16 632	23 647	28 074

SOURCE — Centro de Informações Econômico-Fiscais.

b) Value

MAJOR COMMODITY CLASSES	VALUE (US\$ 1 000 000)			
	1962	1965	1968	1970
Live animals	2	2	3	4
Raw materials	327	272	420	488
Food and beverages	238	213	334	295
Chemicals; pharmaceutical and similar products.....	163	174	323	446
Machinery, vehicles, parts and accessories	507	244	660	1 002
Manufactured goods classified by raw material	199	155	300	461
Miscellaneous manufactured articles.....	37	33	85	133
Gold. Coins. Special transactions	2	3	7	20
TOTAL	1 475	1 096	2 132	2 849

SOURCE — Centro de Informações Econômico-Fiscais.



3.5.1 — FOREIGN TRADE

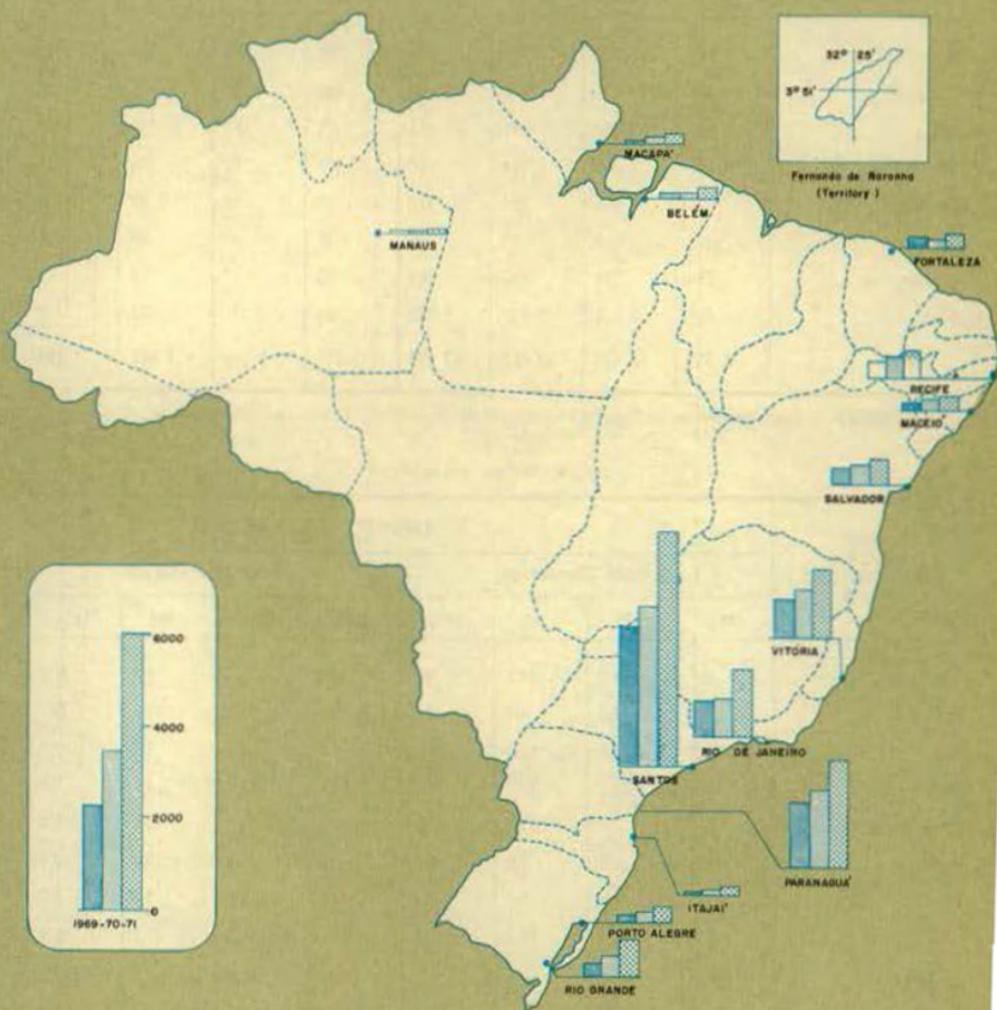
3.5.1.7 — Imports, by commodity groups — 1971

COMMODITY GROUPS	QUANTITY		VALUE	
	Metric-tons	Percentage	US\$ 1 000	Percentage
Special transactions.....	22 627	0,1	34 327	0,9
Live animals and products of animal origin.....	66 597	0,2	54 057	1,5
Products of vegetable origin	2 181 840	6,6	241 617	6,5
Animal and vegetable oils and fats, processed; waxes of animal or vegetable origin.....	75 591	0,2	24 785	0,7
Food preparations, alcoholic beverages and vinegar; tobacco, unmanufactured	45 243	0,1	19 330	0,5
Crude minerals	25 226 695	76,6	571 770	15,4
Chemical elements and compounds	2 833 000	8,6	487 473	13,2
Artificial plastic materials, ether and esters from cellulose, artificial resins and products, and natural or synthetic rubber and products	218 232	0,7	109 621	3,0
Hides, skins, fur skins, leather manufactures, saddlery, travel goods, handbags and similar articles.....	2 419	0,0	3 030	0,1
Wood and cork manufactures, charcoal, fiber manufactures and mats	19 480	0,1	3 931	0,1
Pulps, paper and manufactures	317 501	1,0	98 158	2,7
Textile yarn and fabrics and their manufactures ..	35 589	0,1	63 142	1,7
Footwear, hats and related articles, umbrellas, feather and made-up articles, artificial flowers, hair articles, fans	245	0,0	1 593	0,0
Mineral manufactures made-up of stone, gypsum, cement, asbestos, mica and other related materials; pottery; glass and glassware .	51 266	0,2	26 784	0,7
Pearls, precious and semi-precious stone, jewellery and goldsmiths and silversmiths wares, trinkets and coins	107	0,0	12 647	0,3
Metals and manufactures	1 477 771	4,5	475 986	12,9
Machinery and apparatus, electrical material	269 307	0,8	1 034 636	28,0
Transport equipment	70 304	0,2	288 214	7,8
Optical, photographic and cinematographic supplies, measures and controlling apparatus, scientific and medical instruments, watches and clocks, musical instruments, image and sound recorders and reproducers	6 903	0,0	142 457	3,8
Fire arms and ammunition.....	47	0,0	989	0,0
Commodities not classified by kind	1 152	0,0	6 548	0,2
Artworks, collector's pieces, antiques	36	0,0	344	0,0
TOTAL	32 921 952	100,0	3 701 448	100,0

SOURCE — Banco do Brasil, Carteira do Comércio Exterior.

FOREIGN TRADE

Exports by principal ports - 1969-71



3.5.1 — FOREIGN TRADE

3.5.1.8 — Exports, by principal ports, airports and customs posts — 1962-1971

a) Absolute numbers

PORTS, AIRPORTS AND CUSTOMS POSTS	EXPORTS							
	Quantity (1 000 metric tons)				Value (US\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
Santos.....	1 187	1 816	2 590	2 707	455	512	654	964
Paranaguá.....	294	473	1 096	1 751	160	221	320	442
Vitória.....	5 963	10 340	12 641	28 483	89	162	171	274
Rio de Janeiro.....	1 950	3 011	2 874	3 312	127	182	158	197
Rio Grande.....	178	388	281	668	20	62	59	156
Recife.....	352	543	583	909	40	53	67	98
Salvador.....	579	304	290	561	59	62	69	94
Other.....	1 858	2 804	3 132	5 433	264	341	383	679
TOTAL.....	12 361	19 679	23 487	43 824	1 214	1 595	1 881	2 904

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

b) Relative numbers

PORTS, AIRPORTS AND CUSTOMS POSTS	EXPORTS							
	Quantity (Percentage)				Value (Percentage)			
	1962	1965	1968	1971	1962	1965	1968	1971
Santos.....	9,6	9,2	11,0	6,2	37,4	32,1	34,8	33,2
Paranaguá.....	2,4	2,4	4,7	4,0	13,2	13,9	17,0	15,2
Vitória.....	48,2	52,5	53,8	65,0	7,3	10,2	9,1	9,4
Rio de Janeiro.....	15,8	15,3	12,2	7,5	10,5	11,4	8,4	6,8
Rio Grande.....	1,4	2,0	1,2	1,5	1,7	3,9	3,1	5,4
Recife.....	2,9	2,8	2,5	2,1	3,3	3,3	3,6	3,4
Salvador.....	4,7	1,5	1,2	1,3	4,9	3,9	3,7	3,2
Other.....	15,0	14,3	13,4	12,4	21,7	21,3	20,3	23,4
TOTAL.....	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

3.5.1 — FOREIGN TRADE

3.5.1.9 — Imports, by principal ports, airports and customs posts — 1962-1971

a) Absolute numbers

PORTS, AIRPORTS AND CUSTOMS POSTS	IMPORTS							
	Quantity (1 000 metric tons)				Value (US\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
Santos.....	7 379	7 883	10 632	7 309	726	543	1 027	1 491
Rio de Janeiro.....	6 968	6 349	8 234	12 015	461	345	600	909
São Sebastião.....	—	—	0	6 268	—	—	0	131
Vitória.....	129	328	433	646	57	18	27	115
Porto Alegre.....	428	228	1 079	398	60	37	90	95
Salvador.....	174	128	351	411	24	19	45	85
Recife.....	315	252	499	386	34	27	63	73
Manaus.....	218	259	394	444	5	7	42	67
Rio Grande.....	575	580	733	829	17	15	31	60
Tramandaí.....	—	—	—	3 124	—	—	—	59
Other.....	600	626	1 293	1 092	91	85	207	616
TOTAL.....	16 786	16 633	23 648	32 922	1 475	1 096	2 132	3 701

SOURCE — Centro de Informações Econômico-Fiscais.

b) Relative numbers

PORTS, AIRPORTS AND CUSTOMS POSTS	IMPORTS							
	Quantity (Percentage)				Value (Percentage)			
	1962	1965	1968	1971	1962	1965	1968	1971
Santos.....	44,0	47,3	45,0	22,2	49,2	49,5	48,2	40,2
Rio de Janeiro.....	41,5	38,2	34,8	36,5	31,3	31,5	28,1	24,6
São Sebastião.....	—	—	0,0	19,1	—	—	0,0	3,5
Vitória.....	0,8	2,0	1,8	2,0	3,9	1,6	1,3	3,1
Porto Alegre.....	2,5	1,4	4,6	1,2	4,1	3,4	4,2	2,6
Salvador.....	1,0	0,8	1,5	1,2	1,6	1,7	2,1	2,3
Recife.....	1,9	1,5	2,1	1,2	2,3	2,5	3,0	2,0
Manaus.....	1,3	1,6	1,7	1,3	0,3	0,6	2,0	1,8
Rio Grande.....	3,4	3,5	3,1	2,5	1,2	1,4	1,4	1,6
Tramandaí.....	—	—	—	9,5	—	—	—	1,6
Other.....	3,6	3,7	5,4	3,3	6,1	7,8	9,7	16,7
TOTAL.....	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.10 — Exports, by principal countries of destination — 1962-1971

COUNTRIES OF DESTINATION	EXPORTS							
	Value (US\$ 1 000 000)				Percentage			
	1962	1965	1968	1971	1962	1965	1968	1971
United States	485	520	627	760	40,0	32,6	33,4	26,2
Germany, Federal Republic	110	141	148	256	9,1	8,8	7,9	8,8
Italy.....	35	85	117	203	2,9	5,3	6,2	7,0
Argentina	48	81	119	201	4,0	5,1	6,3	6,9
Netherlands.....	74	141	103	176	6,1	8,8	5,5	6,1
United Kingdom.....	29	56	59	158	2,4	3,5	3,1	5,4
Japan	54	62	73	127	4,4	3,9	3,9	4,4
France (1)	41	30	68	96	3,4	1,9	3,6	3,3
Sweden	17	48	45	94	1,4	3,1	2,4	3,2
Belgium-Luxembourg	30	48	44	63	2,4	3,0	2,3	2,2
Spain (2).....	43	55	51	54	3,5	3,4	2,7	1,9
Other.....	248	328	427	716	20,4	20,6	22,7	24,6
TOTAL	1 214	1 595	1 881	2 904	100,0	100,0	100,0	100,0

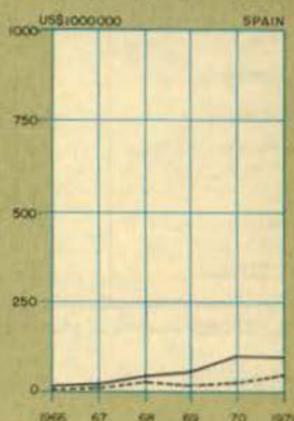
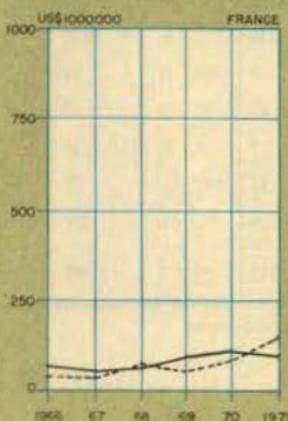
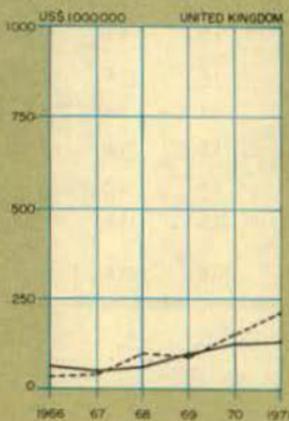
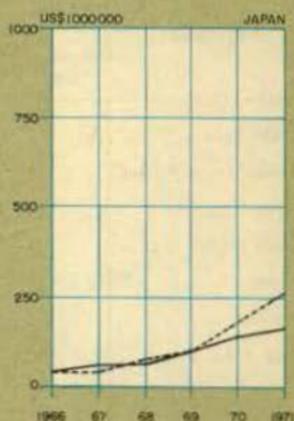
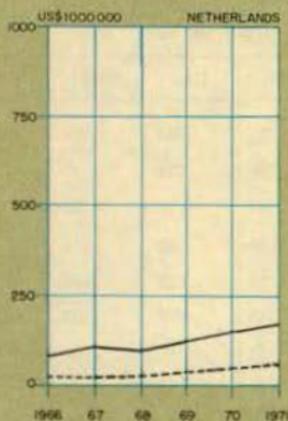
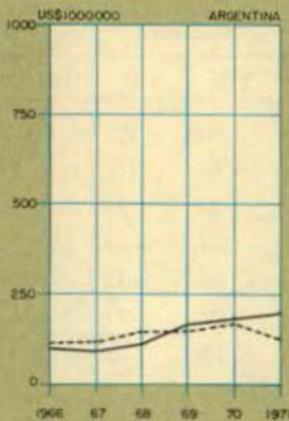
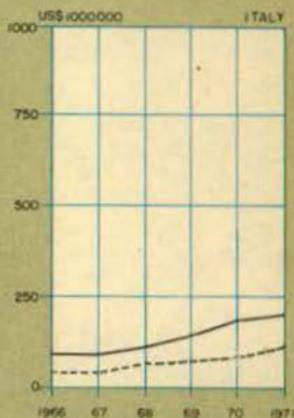
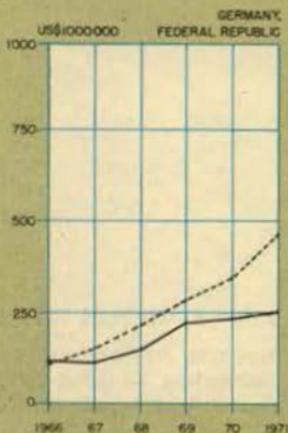
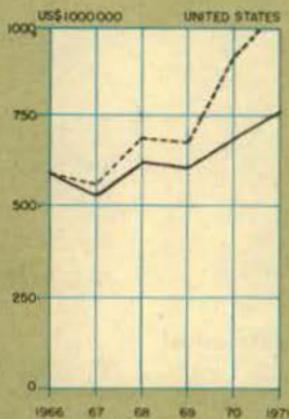
SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

(1) Including Monaco. (2) Including the Canary Islands.

FOREIGN TRADE

Largest trade partners of Brazil

----- IMPORTS ——— EXPORTS



3.5.1 — FOREIGN TRADE

3.5.1.11 — Imports, by principal countries of provenance — 1962-1971

COUNTRIES OF PROVENANCE	IMPORTS							
	Value (US\$ 1 000 000)				Percentage			
	1962	1965	1968	1971	1962	1965	1968	1971
United States	457	325	684	1 061	31,0	30,0	32,1	28,7
Germany, Federal Republic	152	96	236	475	10,3	8,7	11,1	12,8
Japan	60	37	73	260	4,1	3,3	3,4	7,0
United Kingdom.....	46	30	96	216	3,1	2,7	4,5	5,8
France.....	66	33	72	146	4,5	3,0	3,3	3,9
Argentina	86	132	153	132	5,8	12,0	7,2	3,6
Saudi Arabia	50	10	66	131	3,4	0,9	3,1	3,5
Italy.....	42	26	73	124	2,8	2,3	3,4	3,4
Canada	25	13	36	100	1,7	1,2	1,7	2,7
Sweden	35	19	52	76	2,4	1,7	2,4	2,1
Switzerland	20	17	39	72	1,4	1,5	1,8	1,9
Venezuela	108	82	67	62	7,3	7,5	3,1	1,7
Netherlands.....	19	19	34	60	1,3	1,7	1,6	1,6
Iraq	—	27	50	59	—	2,5	2,3	1,6
Other.....	309	230	400	727	20,9	21,0	19,0	19,7
TOTAL.....	1 475	1 096	2 131	3 701	100,0	100,0	100,0	100,0

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.12 — Exports, by principal commodities — 1962-1971

a) Absolute numbers

COMMODITIES	EXPORTS							
	Quantity (1 000 metric tons)				Value (US\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
Coffee beans, green	983	809	1 107	1 034	643	707	774	772
Iron ore	7 528	12 731	15 050	31 020	68	103	104	237
Sugar, raw	440	710	1 026	1 191	39	54	102	147
Raw cotton.....	216	196	248	227	112	96	131	137
Bovine meat, fresh or frozen	13	36	39	89	5	24	20	99
Soybeans bran .....	...	99	225	872	...	7	18	78
Corn (maize), unmilled	0	560	1 238	1 280	0	28	57	75
Pinewood, sawn	474	675	788	583	36	52	71	72
Cocoa, beans	55	92	76	119	24	28	46	62
Meat preparations	9	17	15	34	7	12	13	51
Instant coffee	—	1	11	23	—	1	23	50
Castor oil.....	61	140	116	135	15	27	36	40
Manganese ore.....	760	1 068	1 124	1 797	27	29	24	38
Tobacco, leaf.....	41	55	39	60	24	26	19	36
Orange juice.....	0	6	30	77	0	2	12	36
Cocoa butter and paste	17	17	18	21	17	13	26	24
Soybeans, seeds	97	75	66	213	8	7	6	24
Peanut oil	0	—	—	58	0	—	—	22
Menthol.....	0	1	1	2	8	4	11	17
Peanut bran.....	75	116	99	201	4	8	8	17
Footwear	0	—	—	3	0	—	—	16
Pepper, black.....	—	7	10	17	—	6	6	15
Sisal	123	135	135	139	23	23	16	15
Other.....	1 469	2 136	2 026	4 629	154	338	358	824
TOTAL	12 361	19 682	23 487	43 824	1 214	1 595	1 881	2 904

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

3.5.1 — FOREIGN TRADE

3.5.1.12 — Exports, by principal commodities — 1962-1971

b) Relative numbers

COMMODITIES	EXPORTS							
	Quantity (Percentage)				Value (Percentage)			
	1962	1965	1968	1971	1962	1965	1968	1971
Coffee beans, green	8,0	4,1	4,7	2,4	53,0	44,3	41,1	26,6
Iron ore	60,9	64,7	64,1	70,8	5,6	6,4	5,5	8,2
Sugar, raw	3,6	3,6	4,4	2,7	3,2	3,4	5,4	5,1
Raw cotton.....	1,7	1,0	1,0	0,5	9,2	6,0	7,0	4,7
Bovine meat, fresh or frozen	0,1	0,2	0,2	0,2	0,4	1,5	1,1	3,4
Soybeans bran .....	...	0,5	1,0	2,0	...	0,4	1,0	2,7
Corn (maize), unmilled	0,0	2,8	5,3	2,9	0,0	1,8	3,0	2,6
Pinewood, sawn	3,8	3,4	3,3	1,3	3,0	3,3	4,0	2,5
Cocoa, beans	0,4	0,5	0,3	0,3	2,0	1,8	2,4	2,1
Meat preparations	0,1	0,1	0,1	0,1	0,6	0,8	0,7	1,8
Instant coffee	—	0,0	0,0	0,1	—	0,1	1,2	1,7
Castor oil.....	0,5	0,7	0,5	0,3	1,2	1,7	1,9	1,4
Manganese ore	6,2	5,4	4,8	4,1	2,2	1,8	1,3	1,3
Tobacco, leaf.....	0,3	0,3	0,2	0,1	2,0	1,6	1,0	1,2
Orange juice.....	0,0	0,0	0,1	0,2	0,0	0,1	0,6	1,2
Cocoa butter and paste	0,1	0,1	0,1	0,0	1,4	0,8	1,4	0,8
Soybeans, seeds	0,8	0,4	0,3	0,5	0,6	0,4	0,3	0,8
Peanut oil	0,0	—	—	0,1	0,0	—	—	0,8
Menthol.....	0,0	0,0	0,0	0,0	0,7	0,3	0,6	0,6
Peanut bran.....	0,6	0,6	0,4	0,5	0,3	0,5	0,4	0,6
Footwear	0,0	—	—	0,0	0,0	—	—	0,5
Pepper, black.....	—	0,0	0,0	0,0	—	0,4	0,3	0,5
Sisal	1,0	0,7	0,6	0,3	1,9	1,4	0,8	0,5
Other.....	11,9	10,9	8,6	10,6	12,7	21,2	19,0	28,4
TOTAL	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.



Warehouses, Santos — São Paulo

3.5.1 — FOREIGN TRADE

3.5.1.13 — Imports, by principal commodities — 1962-1971

a) Absolute numbers

(continues)

COMMODITIES	IMPORTS							
	Quantity (1 000 metric tons)				Value (US\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
Fuels, lubricants, mineral oils, and by-products.....	12 229	12 268	16 146	23 872	263	225	316	530
Petroleum, crude and partly refined.....	9 961	10 247	12 525	18 731	174	156	199	363
Coal, coke and briquettes.....	902	1 173	1 469	1 837	15	23	26	50
Gasoline.....	419	163	642	523	20	8	22	18
Lubricating oils and greases.....	242	217	345	331	20	18	29	18
Other.....	705	488	1 165	2 450	34	20	40	81
Wheat.....	2 192	1 876	2 621	1 711	161	136	183	124
Chemicals; pharmaceutical and similar products.....	772	883	2 032	2 839	163	174	324	487
Fertilizers manufactured.....	332	472	1 041	1 820	17	26	45	77
Inorganic chemical elements and products.....	265	172	345	451	29	28	47	79
Organic chemical products.....	76	119	214	376	51	59	98	181
Insecticides, fungicides and disinfectants, excluding medicinal.....	10	11	12	20	12	9	12	20
Other.....	89	109	420	172	54	52	122	130

3.5.1 — FOREIGN TRADE

3.5.1.13 — Imports, by principal commodities — 1962-1971

a) Absolute numbers

(conclusion)

COMMODITIES	IMPORTS							
	Quantity (1 000 metric tons)				Value (US\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
Metals and metal products.....	410	349	514	1 478	154	127	223	476
Copper and copper-alloys.....	42	23	50	72	30	27	61	86
Iron and steel plates, sheets, wires, tubes, and other semi-elaborated products.....	147	163	266	1 280	39	36	61	294
Aluminium and aluminium-alloys.....	20	22	33	39	11	12	19	27
Zinc and zinc-alloys.....	43	32	43	51	11	13	13	17
Other.....	158	109	122	36	63	39	69	52
Apples, pears and grapes.....	63	68	138	149	11	12	32	38
Machinery, parts and accessories.....	157	64	144	280	370	199	494	1 067
Electrical machines and appliances, their parts and accessories.....	31	15	32	39	94	51	142	224
Machine-tools and other machinery for working metals excluding pneumatic machines.....	46	10	17	14	75	21	50	53
Office machines.....	1	1	3	4	16	16	35	83
Machinery and appliances for transporting, lifting, road levelling, road construction and maintenance, drilling and boring.....	22	12	30	14	39	25	60	31
Other.....	57	26	62	209	146	86	207	676
Paper and cardboard in spools, sheets or rolls.....	136	60	168	215	26	13	38	59
Vehicles, their parts and accessories.....	49	24	51	57	137	45	165	123
Fish, dried, salted and smoked.....	27	16	40	32	15	11	26	29
Other.....	751	1 005	1 794	2 289	175	154	331	768
TOTAL.....	16 786	16 633	23 648	32 922	1 475	1 096	2 132	3 701

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.13 — Imports, by principal commodities — 1962-1971

b) Relative numbers

(continues)

COMMODITIES	IMPORTS							
	Quantity (Percentage)				Value (Percentage)			
	1962	1965	1968	1971	1962	1965	1968	1971
Fuels, lubricants, mineral oils and by-products.....	72,9	73,9	68,3	72,5	17,8	20,5	14,8	14,3
Petroleum, crude and partly refined.....	59,3	61,6	53,0	56,9	11,7	14,2	9,3	9,8
Coal, coke and briquettes.....	5,4	7,1	6,2	5,6	1,0	2,1	1,2	1,4
Gasoline.....	2,5	1,0	2,7	1,6	1,4	0,7	1,0	0,5
Lubricating oils and greases.....	1,5	1,3	1,4	1,0	1,4	1,7	1,4	0,5
Other.....	4,2	2,9	5,0	7,4	2,3	1,8	1,9	2,1
Wheat.....	13,0	11,3	11,1	5,2	10,9	12,4	8,6	3,3
Chemicals, pharmaceutical and similar products.....	4,6	5,3	8,6	3,8	11,1	15,9	15,2	13,2
Fertilizers, manufactured.....	2,0	2,8	4,4	5,5	1,2	2,4	2,1	2,1
Inorganic chemical elements and products.....	1,6	1,0	1,4	1,4	2,0	2,6	2,2	2,2
Organic chemical products.....	0,5	0,7	0,9	1,1	3,4	5,4	4,6	4,9
Insecticides, fungicides and disinfectants excluding medicinal.....	0,0	0,1	0,1	0,1	0,8	0,8	0,6	0,5
Other.....	0,5	0,7	1,8	0,5	3,7	4,7	5,7	3,5
Metals and metal products.....	2,4	2,1	2,2	4,5	10,4	11,6	10,5	12,9
Copper and copper-alloys.....	0,3	0,1	0,2	0,2	2,0	2,5	2,9	2,3
Iron and steel plates, sheets, wires, tubes, and other semi-elaborated products.....	0,9	1,0	1,1	3,9	2,7	3,3	2,9	8,0
Aluminium and aluminium-alloys.....	0,1	0,1	0,1	0,1	0,7	1,1	0,9	0,7
Zinc and zinc-alloys.....	0,2	0,2	0,2	0,2	0,7	1,2	0,6	0,5
Other.....	0,9	0,7	0,6	0,1	4,3	3,5	3,2	1,4

3.5.1 — FOREIGN TRADE

3.5.1.13 — Imports, by principal commodities — 1962-1971

b) Relative numbers

(conclusion)

COMMODITIES	IMPORTS							
	Quantity (Percentage)				Value (Percentage)			
	1962	1965	1968	1971	1962	1965	1968	1971
Apples, pears and grapes.....	0,4	0,4	0,6	0,4	0,7	1,1	1,5	1,0
Machinery, parts and accessories.....	0,9	0,4	0,6	0,9	25,1	18,1	23,2	28,8
Electrical machines and appliances, their parts and accessories.....	0,2	0,1	0,1	0,1	6,4	4,7	6,7	6,1
Machine-tools and other machinery for working metals excluding pneumatic machines.....	0,3	0,1	0,1	0,1	5,1	1,9	2,4	1,4
Office machines.....	0,0	0,0	0,0	0,0	1,1	1,4	1,6	2,2
Machinery and appliances for transporting, lifting, road construction and maintenance, drilling and boring.....	0,1	0,1	0,1	0,1	2,6	2,3	2,8	0,8
Other.....	0,3	0,1	0,3	0,6	9,9	7,8	9,7	18,3
Paper and cardboard in spools, sheets or rolls.....	0,8	0,4	0,7	0,6	1,8	1,2	1,8	1,6
Vehicles, their parts and accessories.....	0,3	0,1	0,2	0,2	9,3	4,1	7,7	8,3
Fish, dried, salted, and smoked.....	0,2	0,1	0,2	0,1	1,0	1,0	1,2	0,8
Other.....	4,5	6,0	7,5	7,0	11,9	14,1	15,5	20,8
TOTAL.....	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.14 — Exports of leading commodities — 1962-1971

YEARS	EXPORTS							
	Value (US\$ 1 000)				Index numbers (1961=100)			
	Coffee beans	Raw cotton	Iron ore	Sugar	Coffee beans	Raw cotton	Iron ore	Sugar
1962.....	642 671	112 166	69 494	39 499	90	102	116	60
1965.....	706 587	95 651	102 979	56 730	99	87	171	86
1968.....	774 474	130 817	104 450	101 577	109	119	174	155
1971.....	772 479	137 140	237 327	146 554	109	125	395	223

SOURCES — Centro de Informações Econômico-Fiscais and Banco do Brasil, Carteira do Comércio Exterior.

3.5.1.15 — Imports of leading commodities — 1962-1971

YEARS	IMPORTS							
	Value (US\$ 1 000)				Index numbers (1961=100)			
	Wheat (grain)	Petroleum	Airplanes	Copper	Wheat (grain)	Petroleum	Airplanes	Copper
1962.....	160 953	174 195	19 884	29 133	116	127	112	122
1965.....	135 899	156 441	3 062	25 845	98	114	17	108
1968.....	181 678	199 479	61 625	59 592	131	145	348	249
1971.....	124 450	363 463	57 169	82 454	90	264	323	344

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.16 — Cost and freight of imported commodities, by countries of provenance — 1962-1971

(continues)

COUNTRIES OF PROVENANCE	VALUE (US\$ 1 000)							
	On board in Brazil (CIF)				In the country of provenance (FOB)			
	1962	1965	1968	1971	1962	1965	1968	1971
Germany, Federal Republic	152 063	96 286	235 911	475 166	138 950	86 271	213 799	432 272
Saudi Arabia	49 473	10 424	66 220	131 241	40 444	8 335	44 860	84 608
Argentina	85 547	132 022	152 729	131 636	71 136	110 983	130 033	120 039
Canada	—	—	36 185	99 861	—	—	32 237	87 951
United States	457 051	325 303	684 504	1 061 909	410 038	281 582	612 650	952 922
France	65 728	33 271	71 807	146 596	59 386	29 780	64 680	131 096
Iraq	—	27 201	50 237	58 943	—	19 660	30 095	36 871
Italy	42 468	25 537	73 006	123 640	38 318	23 514	66 485	114 007
Japan	60 199	36 728	73 112	258 504	54 050	32 088	65 871	228 891
Netherlands	19 450	18 892	33 800	60 963	17 646	16 530	30 002	52 337
United Kingdom	46 306	30 449	96 240	216 230	41 954	27 739	88 290	195 091
Sweden	34 953	18 830	52 001	75 721	31 680	17 394	48 299	70 127
Switzerland	20 175	16 825	39 174	72 222	19 202	16 145	37 406	68 480
Venezuela	107 710	82 086	66 708	62 237	87 828	63 569	45 065	46 430
Other	333 924	242 569	400 225	726 385	293 265	207 040	345 347	624 394
TOTAL	1 475 047	1 096 423	2 131 859	3 701 254	1 303 897	940 630	1 855 119	3 245 496

3.5.1 — FOREIGN TRADE

3.5.1.16 — Cost and freight of imported commodities, by countries of provenance — 1962-1971

(conclusion)

COUNTRIES OF PROVENANCE	VALUE (US\$ 1 000)				PERCENTAGE OF FREIGHT OVER VALUE ON BOARD IN BRAZIL (CIF)			
	Freight and other expenses				1962	1965	1968	1971
	1962	1965	1968	1971				
Germany, Federal Republic	13 113	10 015	22 112	42 894	8,6	10,4	9,4	9,0
Saudi Arabia	9 029	2 089	21 360	46 633	18,3	20,0	32,3	35,5
Argentina..	14 411	21 039	22 696	11 597	16,8	15,9	14,9	8,8
Canada	—	—	3 948	11 910	—	—	10,9	11,9
United States	47 013	43 721	71 854	108 987	10,3	13,4	10,5	10,3
France.....	6 342	3 491	7 127	15 500	9,6	10,5	9,9	10,6
Iraq	—	7 541	20 142	22 072	—	27,7	40,1	37,4
Italy.....	4 150	2 023	6 521	9 633	9,8	7,9	8,9	7,8
Japan..	6 149	4 640	7 241	29 613	10,2	12,6	9,9	11,5
Netherlands.....	1 804	2 362	3 798	8 626	9,3	12,5	11,2	14,1
United Kingdom.....	4 352	2 710	7 950	21 139	9,4	8,9	8,3	9,8
Sweden	3 273	1 436	3 702	5 594	9,4	7,6	7,1	7,4
Switzerland	973	680	1 768	3 762	4,8	4,0	4,5	5,2
Venezuela	19 882	18 517	21 643	15 807	18,5	22,6	32,4	25,4
Other.....	40 659	35 529	54 878	101 991	12,2	14,6	13,7	14,0
TOTAL	171 150	155 793	276 740	455 758	11,6	14,2	13,0	12,3

SOURCE — Centro de Informações Econômico-Fiscais.

3.5.1 — FOREIGN TRADE

3.5.1.17 — Cost and freight of imported commodities, by ship flag — 1962-1971

SHIP FLAG	VALUE (US\$ 1 000)								PERCENTAGE OF FREIGHT OVER VALUE ON BOARD IN BRASIL			
	Cost in the country of provenance				Freight and other expenses				1962	1965	1968	1971
	1962	1965	1968	1971	1962	1965	1968	1971				
Brazilian												
Domestic fleet.....	299 728	251 271	440 316	1 062 450	25 755	35 214	45 083	106 965	7,9	12,3	9,3	8,1
Freighted fleet ..	171 356	129 900	432 278	811 641	18 237	24 541	76 913	169 763	9,6	15,9	15,1	17,3
North-American	147 132	104 574	248 233	255 717	17 556	11 705	27 397	28 084	10,7	10,1	9,9	9,9
Norwegian.....	78 696	48 830	75 393	125 142	15 641	12 065	19 626	22 554	16,6	19,8	20,7	15,3
Liberian.....	75 349	34 234	31 861	58 817	21 571	11 733	11 140	13 130	22,3	25,5	25,9	18,2
Argentine	60 200	63 968	67 953	47 521	9 452	11 512	12 143	6 826	13,6	15,3	15,2	12,6
German, Western ...	63 376	46 496	95 160	188 857	6 595	5 115	9 350	19 959	9,4	9,9	9,0	9,6
British	44 972	38 339	83 394	87 921	6 056	8 100	17 035	12 347	11,9	17,4	17,0	12,3
Dutch.....	66 935	45 523	72 127	135 017	7 117	5 611	10 266	18 493	9,6	11,0	12,5	12,0
Japanese	51 410	24 153	40 537	67 356	5 833	3 304	6 670	8 772	10,2	12,0	14,1	11,5
Other	244 742	153 342	267 867	405 057	37 337	26 893	41 117	48 865	13,2	14,9	13,3	10,8
TOTAL.....	1 303 897	940 630	1 855 119	3 245 496	171 150	155 793	276 740	455 758	11,6	14,2	13,0	12,3

SOURCE — Centro de Informações Econômico-Fiscais.



3.5.2 — INTERNAL TRADE
3.5.2.1 — Domestic waterborne trade
3.5.2.1.1 — FREIGHT CARRIED — 1962-1971

SPECIFICATION	NUMBERS			
	1962	1965	1968	1971
Basic Data				
Quantity				
Absolute (1 000 metric tons).....	9 624,1	8 665,5	12 818,8	14 743,9
In millions of ton-miles.....	9 767,7	8 349,8	11 440,8	12 980,9
Value (Cr\$ 1 000)				
Net freight.....	23 916,6	76 062,5	215 675,5	402 207,6
Duties.....	12 797,5	34 851,9	61 084,4	160 985,7
Gross freight.....	36 714,1	110 914,4	276 759,9	563 193,3
Processed Data				
Percentage of gross freight over net freight.....	154	146	128	140
Average distance (miles).....	1 015	964	893	880
Value per ton-mile (Cr\$)				
Net freight.....	0,002	0,009	0,019	0,031
Gross freight.....	0,004	0,013	0,024	0,043
Average values per metric ton (Cr\$)				
Net freight.....	2,41	8,78	16,82	27,28
Gross freight.....	3,82	12,80	21,59	38,20

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — Excluding transports between ports located within São Paulo and Bahia states.

3.5.2 — INTERNAL TRADE

3.5.2.1 — Domestic waterborne trade

3.5.2.1.2 — FREIGHT CARRIED, BY PRINCIPAL PRODUCTS — 1971

PRODUCTS	ABSOLUTE NUMBERS			PERCENTAGE		
	Quantity (Metric tons)	Freight (Cr\$)		Quantity	Freight	
		Net	Gross		Net	Gross
Petroleum and by-products in bulk (1)	10 906 272	260 211 860	341 901 273	74,0	64,6	60,6
Hard coal, in bulk.....	958 057	14 932 427	23 816 889	6,5	3,7	4,3
Wheat, in bulk	820 063	32 394 525	48 025 479	5,6	8,1	8,5
Salt, in bulk.....	793 564	33 424 918	50 079 611	5,4	8,3	8,9
Iron and manganese ores, in bulk.....	323 655	3 876 122	7 309 581	2,2	1,0	1,3
Coffee beans..	141 071	5 728 223	9 012 202	1,0	1,4	1,6
Sugar.....	108 924	3 353 892	6 084 896	0,8	0,8	1,1
Rice.....	95 829	3 637 949	6 330 483	0,6	0,9	1,1
Wood in the rough or roughly squared.....	93 378	5 458 768	8 717 335	0,6	1,4	1,6
Iron and steel castings and forgings, unfinished,.....	56 722	3 841 881	6 601 524	0,4	1,0	1,2
Vegetable oils..	43 291	2 261 045	2 903 291	0,3	0,6	0,5
Corn (maize).....	34 164	1 383 147	2 359 387	0,2	0,3	0,4
Manioc flour	24 848	892 437	1 543 087	0,2	0,2	0,3
Salt, in bags.....	21 974	856 774	1 401 267	0,1	0,2	0,2
Beer.....	20 778	2 470 723	3 782 393	0,1	0,6	0,7
Wheat, grain, in bags.....	18 646	690 679	1 198 185	0,1	0,2	0,2
Prepared feeds for animals and poultry, in bags .	17 199	823 694	1 380 029	0,1	0,2	0,2
Building materials and structural metal works.....	15 642	1 554 440	2 521 344	0,1	0,4	0,5
Other (2).....	249 872	24 412 099	38 225 049	1,7	6,1	6,8
TOTAL.....	14 743 849	402 207 603	563 193 305	100,0	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — See note to table 3.5.2.1.1.

(1) Gasoline and mixtures, lubricating oils and mixtures, kerosene, crude petroleum, lubricants and mixtures, petroleum liquefied, gas asphalt and other non-specified petroleum products, except petrochemical products. (2) Includes 140 products.

3.5.2 — INTERNAL TRADE

3.5.2.1 — Domestic waterborne trade

3.5.2.1.3 — EXPORTS, BY MAJOR REGIONS, STATES AND TERRITORIES — 1971

MAJOR REGIONS, STATES AND TERRITORIES	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Gross freight (Cr\$)	Quantity	Gross freight
NORTH..	139 040	14 425 807	0,9	2,6
Amazonas.....	44 878	7 403 331	0,3	1,3
Pará.....	76 844	5 680 691	0,5	1,0
Amapá, Territory.....	17 318	1 341 785	0,1	0,3
NORTH-EAST.....	7 425 326	246 464 696	50,4	43,7
Maranhão.....	84 844	5 508 515	0,6	1,0
Piauí.....	11 894	407 627	0,1	0,1
Ceará.....	156 367	10 078 329	1,1	1,8
Rio Grande do Norte.....	683 458	43 147 350	4,6	7,7
Paraíba.....	8 757	794 059	0,1	0,1
Pernambuco.....	90 695	5 849 314	0,6	1,0
Alagoas.....	128 956	4 984 671	0,9	0,9
Sergipe.....	917 346	17 576 872	6,2	3,1
Bahia.....	5 343 009	158 117 959	36,2	28,0
SOUTH-EAST.....	4 300 783	168 116 448	29,2	29,9
Espírito Santo.....	10 619	659 065	0,1	0,1
Rio de Janeiro.....	4 220	912 075	0,0	0,2
Guanabara.....	4 197 887	149 907 191	28,5	26,6
São Paulo.....	88 057	16 638 117	0,6	3,0
SOUTH.....	2 878 800	134 186 354	19,5	23,8
Paraná.....	153 697	9 948 308	1,0	1,8
Santa Catarina.....	964 488	25 165 461	6,5	4,5
Rio Grande do Sul.....	1 760 615	99 072 585	12,0	17,5
BRAZIL.....	14 743 949	563 193 305	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — See note to table 3.5.2.1.1.



3.5.2 — INTERNAL TRADE

3.5.2.1 — Domestic waterborne trade

3.5.2.1.4 — IMPORTS, BY MAJOR REGIONS, STATES AND TERRITORIES — 1971

MAJOR REGIONS, STATES AND TERRITORIES	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Gross freight (Cr\$)	Quantity	Gross freight
NORTH	846 389	80 457 244	5,7	14,3
Amazonas.....	216 251	36 472 883	1,5	6,5
Pará.....	602 910	40 567 769	4,0	7,2
Amapá, Territory.....	27 228	3 416 592	0,2	0,6
NORTH-EAST	2 447 762	131 121 018	16,6	23,3
Maranhão.....	190 515	10 180 488	1,3	1,8
Piauí.....	111	3 787	0,0	0,0
Ceará.....	542 943	34 112 725	3,7	6,1
Rio Grande do Norte.....	129 563	6 177 365	0,9	1,1
Paraíba.....	134 364	7 561 825	0,9	1,3
Pernambuco.....	1 099 924	57 268 315	7,4	10,2
Alagoas.....	135 055	5 533 212	0,9	1,0
Sergipe.....	13 617	789 088	0,1	0,1
Bahia.....	201 670	9 494 213	1,4	1,7
SOUTH-EAST	9 972 767	287 867 006	67,7	51,1
Espírito Santo.....	882 763	25 866 973	6,0	4,6
Rio de Janeiro.....	444 360	16 180 227	3,0	2,9
Guanabara.....	3 296 925	86 055 422	22,4	15,3
São Paulo.....	5 348 719	159 764 384	36,3	28,3
SOUTH	1 477 031	63 748 037	10,0	11,3
Paraná.....	894 660	33 402 563	6,0	5,9
Santa Catarina.....	467 671	21 095 108	3,2	3,8
Rio Grande do Sul.....	114 700	9 250 366	0,8	1,6
BRAZIL	14 743 949	563 193 305	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — See note to table 3.5.2.1.1.

3.5.2 — INTERNAL TRADE

3.5.2.1 — Domestic waterborne trade

3.5.2.1.5 — EXPORTS, BY MAIN PORTS — 1971

MAIN PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Gross freight (Cr\$)	Quantity	Gross freight
Madre de Deus (BA).....	5 342 700	158 090 986	36,2	28,1
Rio de Janeiro (GB).....	4 197 887	149 907 191	28,5	26,6
Rio Grande (RS).....	1 130 472	48 809 990	7,7	8,7
Imbituba (SC).....	926 550	23 063 824	6,3	4,1
Aracaju (SE).....	917 346	17 576 872	6,2	3,1
Macau (RN).....	439 782	27 216 758	3,0	4,8
Porto Alegre (RS).....	356 734	25 384 613	2,4	4,5
Areia Branca (RN).....	203 890	13 474 233	1,4	2,4
Canoas (RS).....	168 682	18 942 882	1,1	3,4
Maceió (AL).....	128 956	4 984 671	0,9	0,9
Pelotas (RS).....	104 725	5 925 100	0,7	1,1
Recife (PE).....	90 695	5 849 314	0,6	1,0
Antonina (PR).....	88 449	5 120 175	0,6	0,9
Santos (SP).....	87 953	16 635 964	0,6	3,0
Fortaleza (CE).....	74 978	4 953 421	0,5	0,9
Paranaguá (PR).....	65 248	4 828 133	0,4	0,9
Other (1).....	418 902	32 419 178	2,9	5,6
TOTAL	14 743 949	563 193 305	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTES — 1. See note to table 3.5.2.1.1.

2. Selected ports with a minimum exported cargo of 65.000 tons.

(1) Includes 90 ports.

3.5.2 — INTERNAL TRADE

3.5.2.1 — Domestic waterborne trade

3.5.2.1.6 — IMPORTS BY THE MAIN PORTS OF DESTINATION — 1971

PORT OF DESTINATION	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Gross freight (Cr\$)	Quantity	Gross freight
Rio de Janeiro (GB).....	3 296 925	86 055 422	22,4	15,2
Santos (SP).....	3 276 167	122 094 005	22,2	21,6
São Sebastião (SP).....	2 060 549	37 410 973	14,0	6,6
Recife (PE).....	1 099 924	57 268 315	7,5	10,2
Vitória (ES).....	882 763	25 866 973	6,0	4,6
Paranaguá (PR).....	875 775	32 383 803	5,9	5,8
Belém (PA).....	573 250	39 084 669	3,9	6,9
Fortaleza (CE).....	542 208	34 081 991	3,7	6,1
Itajaí (SC).....	444 453	20 014 618	3,0	3,6
Cabo Frio (RJ).....	269 885	11 151 685	1,8	2,0
Manaus (AM).....	216 249	36 472 725	1,5	6,5
São Luís (MA).....	166 751	8 212 534	1,1	1,5
Angra dos Reis (RJ).....	146 611	3 722 222	1,0	0,7
Maceió (AL).....	135 055	5 533 212	0,9	1,0
Cabedelo (PB).....	134 364	7 561 825	0,9	1,3
Natal (RN).....	129 563	6 177 365	0,9	1,1
Salvador (BA).....	124 451	7 566 958	0,9	1,3
Other (1).....	369 006	22 534 010	2,4	4,0
TOTAL	14 743 949	563 193 305	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTES — 1. See note to table 3.5.2.1.1.

2. Selected ports with a minimum imported cargo of 100 000 tons.

(1) Includes 41 ports.



3.5.2 — INTERNAL TRADE

3.5.2.2 — Inland waterways

3.5.2.2.1 — FREIGHT CARRIED ON RIVER SYSTEMS — 1965-1971

BASINS AND RIVER SYSTEMS	QUANTITY (Metric tons)			PERCENTAGE		
	1965	1968	1971	1965	1968	1971
Amazonian.....	187 178	233 768	356 515	13,0	18,2	23,8
North-east.....	35 107	16 873	9 458	2,4	1,2	0,6
Prata.....	230 652	177 705	262 943	16,1	12,7	17,5
São Francisco.....	50 490	53 142	29 759	3,5	3,8	2,0
South-east.....	535 309	899 781	841 229	65,0	64,1	56,1
TOTAL.....	1 438 736	1 381 269	1 499 904	100,0	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

3.5.2.2.2 — FREIGHT CARRIED, BY PRINCIPAL PORTS — 1971

a) Amazonian basin

PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Freight (Cr\$)	Quantity	Freight
Manaus (AM).....	233 616	13 584 947	32,7	31,6
Belém (PA).....	217 660	13 530 078	30,5	31,4
Porto Velho (RO).....	52 050	4 292 966	7,3	10,0
Santarém (PA).....	42 442	1 969 997	6,0	4,6
Macapá (AP).....	26 375	1 307 527	3,7	3,0
São Miguel do Guamá (PA).....	19 306	246 652	2,7	0,6
Rio Branco (AC).....	15 515	1 436 263	2,2	3,3
Moura (AM).....	12 329	148 121	1,7	0,3
Careiro (AM).....	10 982	154 524	1,5	0,4
Miramar (PA).....	8 559	87 354	1,2	0,2
Vitória do Pará (PA).....	6 943	684 756	1,0	1,6
Santana do Macapá (AP).....	4 398	129 828	0,6	0,3
Boa Vista (RR).....	4 155	536 976	0,6	1,2
Eirunepé (AM).....	4 119	618 846	0,6	1,4
Tucuruí (PA).....	3 948	468 244	0,6	1,1
Tomé-Açu (PA).....	3 780	119 024	0,5	0,3
Itacoatiara (AM).....	3 456	139 925	0,5	0,3
Itaituba (PA).....	3 295	334 660	0,5	0,8
Cocal (PA).....	3 050	171 281	0,4	0,4
Cruzeiro do Sul (AC).....	2 896	542 695	0,4	1,3
Parintins (AM).....	2 660	91 822	0,4	0,2
Boca do Acre (AC).....	2 304	216 711	0,3	0,5
Humaitá (AM).....	2 050	102 853	0,3	0,2
Other.....	27 142	2 129 320	3,8	5,0
TOTAL (Exp. + Imp.).....	713 030	43 045 370	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

3.5.2 — INTERNAL TRADE

3.5.2.2 — Inland waterways

3.5.2.2.2 — FREIGHT CARRIED, BY PRINCIPAL PORTS — 1971

b) North-East basin

PRINCIPAL PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Freight (Cr\$)	Quantity	Freight
São Luís (MA).....	8 372	80 856	44,3	35,5
Penalva (MA).....	1 576	14 899	8,3	6,5
São Bento (MA).....	1 501	16 040	7,9	7,0
Pindaré-Mirim (MA).....	1 276	14 490	6,8	6,4
Cajari (MA).....	1 159	11 632	6,1	5,1
Parnaíba (PI).....	1 081	33 156	5,7	14,5
Viana (MA).....	796	3 267	4,2	1,4
Moção (MA).....	775	6 977	4,1	3,1
Cajapió (MA).....	495	3 810	2,6	1,7
São João Batista (MA).....	474	8 294	2,5	3,6
Tutóia (MA).....	455	16 150	2,4	7,1
Other.....	956	18 471	5,1	8,1
TOTAL (Exp. + Imp.)	18 916	228 042	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

c) Prata basin

PRINCIPAL PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Freight (Cr\$)	Quantity	Freight
Presidente Epitácio (SP)....	153 913	1 552 054	29,3	17,9
Corumbá (MT).....	57 159	594 053	10,9	6,8
Guaira (PR).....	47 859	874 034	9,1	10,1
Porto Alegre (MT).....	44 831	111 798	8,5	1,3
Panorama (SP).....	27 247	463 224	5,2	5,3
Caborei (MT).....	21 729	111 335	4,1	1,3
Barra do Rio Ivinheima (MT)	17 283	221 904	3,3	2,6
Porto Caiúá (MT).....	16 104	84 914	3,1	1,0
Bonito (MT).....	15 388	8 266	2,9	0,1
Ladário (MT).....	14 657	992 732	2,8	11,4
Maracá (SP).....	13 872	78 003	2,6	0,9
Figueira (PR).....	11 884	140 548	2,3	1,6
Baunilha (MT).....	10 945	222 271	2,1	2,5
Cuiabá (MT).....	6 895	296 626	1,3	3,4
Independência (SP).....	5 333	59 879	1,0	0,7
Morumbi (MT).....	4 690	62 610	0,9	1,0
Natal (SP).....	4 360	54 000	0,8	0,6
Três Irmãos (MT).....	3 624	295 941	0,7	3,4
Izabel (SP).....	2 786	41 490	0,5	0,5
Pinheirinho (PR).....	2 562	32 661	0,4	0,4
Other.....	42 764	2 369 097	8,2	27,2
TOTAL (Exp. + Imp.)	525 886	8 687 240	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

3.5.2 — INTERNAL TRADE

3.5.2.2 — Inland waterways

3.5.2.2.2 — FREIGHT CARRIED, BY PRINCIPAL PORTS — 1971

d) São Francisco River basin

PRINCIPAL PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric-tons)	Freight (Cr\$)	Quantity	Freight
Juazeiro (BA).....	21 900	806 241	36,8	38,0
Pirapora (MG).....	8 634	217 587	14,5	10,2
Santa Maria da Vitória (BA)	7 050	330 442	11,9	15,6
Petrolina (PE).....	4 328	147 965	7,3	7,0
Januária (MG).....	4 209	161 973	7,1	7,6
Barreiras (BA).....	4 070	149 333	6,8	7,0
Manga (MG).....	2 981	99 210	5,0	4,7
Carinhanha (BA).....	1 327	45 252	2,2	2,1
Bom Jesus da Lapa (BA)...	1 261	43 488	2,1	2,0
Matias Cardoso (MG).....	1 035	28 938	1,7	1,4
Other.....	2 723	94 055	4,6	4,4
TOTAL (Exp. + Imp.)	59 518	2 124 484	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

e) South-East basin

PRINCIPAL PORTS	ABSOLUTE NUMBERS		PERCENTAGE	
	Quantity (Metric tons)	Freight (Cr\$)	Quantity	Freight
Rio Grande (RS).....	544 254	8 375 060	32,3	47,4
Porto Alegre (RS).....	371 646	5 047 051	22,1	28,5
Canoas (RS).....	182 588	3 139 636	10,9	17,8
Morretes (RS).....	179 666 (1)	—	10,7	—
Santa Isabel do Sul (RS)...	178 069 (2)	1 119	10,6	0,0
Pelotas (RS).....	119 369	450 543	7,1	2,6
Taquari (RS).....	54 006	264 359	3,2	1,5
Gravatá (RS).....	24 118	63 182	1,4	0,4
Niterói (RS).....	14 810	238 368	0,9	1,4
Mariante (RS).....	10 822	53 804	0,6	0,3
Other.....	3 110	17 156	0,2	0,1
TOTAL (Exp. + Imp.)	1 682 458	17 650 278	100,0	100,0

SOURCE — Superintendência Nacional da Marinha Mercante.

(1) Cargo transported by shipowner. (2) Freight for only 233 tons. From the total of 178,069 transported tons, 177,836 were shipowner's cargo.

FARM PRICES, WAGES AND SERVICES

Generally speaking, there was a speed-up in the rate of increase of prices in the rural milieu in 1971. It is worth noting that the prices of livestock products were more sluggish than last year, but on the average, crop prices rose at a rate of 27.2%, well beyond the 22.5% recorded in 1970. The prices of farm produce advanced 31.5% and those of livestock products about 23.9%. It should be observed that the wholesale prices of farm produce in the urban area and the general price index both varied more rapidly than they did in the previous year, but not so sharply. In the urban area, farm products increased 24.7% in 1971, whereas they had only increased 20.3% in 1970. In the years in question, prices in general rose 19.8% and 19.2% respectively.

Where crops are concerned, the expansion observed in 1971 was strongly influenced by the upward price trend of rice (88.0%), cassava (66.3%), corn (38.5%) and peanuts (32.6%). As a rule, the variations in the crops harvested have an immediate repercussion on the prices received for them by the farmer, and last year was no exception, for the yield in the case of the above products was not very high. Other products were higher priced than the year before, but more moderately as: cotton (up 17.9%), tobacco (17.6%), sugarcane (11.6%),

potatoes (10.4%) and wheat (9.0%). Soaring prices were also recorded by bananas (+ 37.3%) and oranges (+ 26.9%) while they slumped in the case of cocoa (- 24.3%) and beans (- 7.3%).

The price of unhulled coffee advanced 6% at the producer level, in spite of the substantial crop that year and the fact that, on the international market, quotations were off 23%. It must be remembered, however, that we are concerned with a commodity coming under a very special regime, the government intervening vigorously in the market.

On the other hand, an explanation for the drop in the price of cocoa is to be found in a reflection of the situation on the international market and the weakness of the domestic one, for the year's crop was barely average. Abroad, the mean quotation for the product at the time was 20% below that of 1970.

As to livestock products, the prices received by the raisers of beef cattle and hogs for slaughter were respectively 27.2% and 30.2% higher than those prevailing the year before. The growth rate for the price of fat steers, comparing 1971 with 1970, was down about 44.8%. For hogs, however, the rate went up more rapidly, since in the previous period it had increased about 20.7%. The price of chickens advanced 13.2% in 1971, whereas in 1970 the variation had been as much as 26.2%. Wool prices remained steady as a result of the international state of affairs, which indeed was the reason for Brazil failing to export the commodity in 1971; honey, however, profited by the significant price increase of 42.6%.

On the other hand, as regards the prices prevailing in the rural milieu for the sale or rent of land, wages and jobwork, it must be recognized that, with the exception of trucking by contract and the rent of land for grazing purposes, the prices paid for other land use, land values, jobwork done by tractor, and rural wages, mounted more steeply in 1971 than in 1970.

Among the forms of rental, those of land for raising crops expanded the most rapidly, with a 48% increase in 1971. Land for livestock farming advanced in rent charged almost as fast, with an increase of 46%, while land for the fattening or temporary grazing of animals showed a rental increase of only 34%. In 1970, the corresponding uptrend of prices had been respectively 45%, 47% and 30%. It is to be supposed that the effect of demand on the supply of land for rent operates more intensely where land for tilling is concerned, and this would explain the swifter rise in the prices charged for renting out land for this kind of farming. Force is added to the argument, when it is recalled that the prices received by crop farmers for agricultural products are subject to larger increases than those paid to livestock raisers and breeders.

In 1971, the rise in value of the hectare of land for sale averaged 31%, while in 1970 it had fluctuated about 26%. It will be seen that the sales price of land, despite a steep uptrend during the year, nonetheless lagged behind rental values. Among other reasons, farmers generally prefer to rent land rather than buy it on the grounds that less risk is involved.

The average earnings of rural labor, following the tendency of recent years, have progressed more rapidly than the urban minimum wage. In 1971, rural wages were raised 31% as opposed to an increase of only 21% in the urban minimum wage. In 1970, the trend worked out at 28% and 22% respectively. In spite of this relative improvement, the rural worker was paid, on the average, 78% less than the minimum wage in force in the towns in 1971.

Finally, truck work by the job was 47% dearer and similar tractor work up about 41%. In 1970, the prices charged for truck and tractor services showed a wider discrepancy, increasing at the rate of 66% and 28% respectively.

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

a) Summary

MONTHS	INDEX NUMBERS (1966 = 100)											
	Crops				Animal products				Agriculture and Livestock			
	1968	1969	1970	1971	1968	1969	1970	1971	1968	1969	1970	1971
January.....	141	173	245	283	122	148	185	240	129	157	208	256
February.....	140	172	246	296	123	149	188	244	129	158	210	264
March.....	141	171	243	305	126	151	192	253	132	159	211	273
April.....	143	172	235	309	130	155	199	256	135	162	213	276
May.....	143	177	237	314	131	158	201	260	136	165	215	281
June.....	145	181	233	320	134	162	207	266	138	169	217	287
July.....	146	185	243	320	138	164	212	272	141	172	224	290
August.....	148	194	253	328	139	169	220	275	142	179	233	295
September.....	154	209	267	330	140	174	224	278	145	187	240	298
October.....	157	229	274	342	144	176	226	282	149	196	244	305
November.....	165	236	275	351	146	180	229	287	153	201	247	311
December.....	168	240	276	363	147	182	234	290	155	204	250	318

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

b) Crops

(continues)

MONTHS	INDEX NUMBERS (1966 = 100)							
	Cottonseed				Peanuts, shell			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	161	172	183	342	121	166	172	234
February.....	166	172	192	325	123	166	165	271
March.....	168	172	197	333	134	162	172	284
April.....	168	177	202	338	139	166	180	284
May.....	160	180	202	354	141	162	180	267
June.....	158	182	204	352	152	166	206	262
July.....	156	178	221	341	156	171	220	273
August.....	159	181	243	346	159	175	233	303
September.....	166	180	275	356	167	206	239	303
October.....	170	176	300	354	170	251	243	299
November.....	171	180	317	352	193	216	240	304
December.....	171	180	302	356	165	208	239	317

MONTHS	INDEX NUMBERS (1966 = 100)							
	Rice, paddy				Banana			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	152	172	172	215	134	158	188	220
February.....	150	169	167	223	137	167	200	248
March.....	146	158	160	239	139	168	201	254
April.....	148	146	156	239	142	180	218	272
May.....	143	143	154	246	143	178	213	260
June.....	144	143	158	262	144	178	206	264
July.....	141	145	165	271	153	175	204	272
August.....	144	147	169	287	154	176	201	280
September.....	148	159	176	297	159	179	200	291
October.....	154	172	184	332	157	180	202	286
November.....	160	175	184	348	160	189	204	283
December.....	162	181	192	361	159	184	209	287

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

b) Crops

(continues)

MONTHS	INDEX NUMBERS (1966 = 100)							
	Potato				Cocoa			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	57	62	119	115	173	328	280	260
February.....	48	67	101	100	178	321	261	250
March.....	48	72	104	105	170	318	257	220
April.....	57	88	113	124	173	326	277	215
May.....	64	102	114	131	174	329	228	207
June.....	71	106	120	137	178	336	229	213
July.....	70	122	132	141	180	337	230	237
August.....	63	147	148	131	188	346	316	256
September.....	62	195	152	125	257	341	308	231
October.....	59	237	153	127	283	338	284	212
November.....	59	211	131	124	318	360	281	213
December.....	58	152	115	127	335	349	276	209

MONTHS	INDEX NUMBERS (1966 = 100)							
	Coffee, beans				Sugar cane			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	143	179	409	454	136	173	252	243
February.....	141	180	429	448	136	172	240	257
March.....	148	184	438	459	139	171	229	257
April.....	147	196	398	473	145	171	232	256
May.....	156	200	443	469	145	183	212	266
June.....	160	207	406	461	146	187	218	275
July.....	170	207	410	455	151	196	237	272
August.....	174	232	433	456	154	197	240	273
September.....	174	284	446	450	156	200	241	266
October.....	174	384	453	456	163	211	236	267
November.....	179	337	446	471	166	217	249	271
December.....	180	374	452	479	170	216	242	270

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

b) Crops

(continues)

MONTHS	INDEX NUMBERS (1966 = 100)							
	Beans, black (haricot)				Tobacco, leaf			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	81	125	237	262	160	199	250	249
February.....	80	129	233	274	161	218	249	258
March.....	80	135	229	283	184	221	252	256
April.....	87	154	229	285	188	223	238	267
May.....	94	182	231	283	188	247	243	270
June.....	96	187	231	269	192	235	240	277
July.....	92	191	233	252	188	228	223	291
August.....	94	202	253	243	180	217	230	291
September.....	98	211	277	233	185	211	238	258
October.....	102	267	274	234	182	229	239	270
November.....	111	280	268	237	193	243	243	273
December.....	113	259	261	242	198	240	244	287

MONTHS	INDEX NUMBERS (1966 = 100)							
	Orange				Manioc			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	161	229	329	455	189	214	295	395
February.....	161	240	322	427	187	208	316	408
March.....	163	222	325	415	186	215	320	431
April.....	155	242	309	413	190	212	310	439
May.....	141	205	282	427	193	223	321	463
June.....	144	208	258	392	190	230	323	501
July.....	155	227	264	342	194	235	329	514
August.....	151	232	271	352	195	257	327	537
September.....	164	231	323	390	196	268	342	553
October.....	217	274	326	405	193	254	346	564
November.....	223	278	325	418	212	267	362	577
December.....	235	301	334	424	216	264	365	607

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

b) Crops

(conclusion)

MONTHS	INDEX NUMBERS (1966 = 100)							
	Corn (maize)				Wheat			
	1968	1969	1970	1971	1968	1969	1970	1971
January.....	135	175	257	255	136	162	197	208
February.....	132	169	258	266	137	166	197	213
March.....	132	174	239	268	138	164	197	210
April.....	131	155	218	270	138	165	197	211
May.....	130	158	203	275	138	164	197	212
June.....	133	169	204	279	139	164	196	209
July.....	133	176	210	284	139	164	196	219
August.....	131	183	214	291	143	175	201	221
September.....	132	201	225	295	150	180	205	221
October.....	142	233	244	313	151	185	209	228
November.....	156	245	249	324	153	189	209	229
December.....	164	256	252	349	158	194	212	231

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

c) Animal products

(continues)

MONTHS	INDEX NUMBERS (1966 = 100)							
	Cattle for slaughter				Hogs and pigs for slaughter			
	1968	1969	1970	1971	1968	1969	1970	1971
January	118	136	167	252	131	168	216	250
February	119	134	172	257	136	174	225	251
March	119	133	175	262	137	180	227	264
April	119	132	181	263	139	185	232	264
May	121	134	183	265	140	188	234	267
June	121	137	187	269	141	190	232	270
July	122	136	191	273	145	189	227	277
August	124	144	203	278	145	191	230	283
September	127	151	216	283	149	190	235	292
October	135	155	222	292	152	194	240	303
November	137	164	226	299	156	197	243	312
December	136	165	239	304	157	203	245	319

MONTHS	INDEX NUMBERS (1966 = 100)							
	Live poultry for slaughter				Milk			
	1968	1969	1970	1971	1968	1969	1970	1971
January	131	146	183	217	124	158	198	238
February	131	144	184	199	125	163	198	242
March	135	173	175	218	128	160	199	249
April	136	163	172	226	134	164	205	252
May	143	157	177	241	134	170	210	256
June	145	126	214	255	138	183	219	264
July	148	130	209	238	149	190	229	282
August	147	138	218	246	155	195	241	288
September	149	137	218	269	157	197	238	293
October	154	119	218	262	160	200	236	297
November	154	141	236	268	159	199	240	298
December	155	144	228	258	161	200	241	296

3.5.3 — PRICES

3.5.3.1 — Prices received by farmers — 1968-71

c) Animal products

(conclusion)

MONTHS	INDEX NUMBERS (1966 = 100)											
	Wool				Eggs				Honey			
	1968	1969	1970	1971	1968	1969	1970	1971	1968	1969	1970	1971
January.....	96	140	147	175	121	136	179	225	232	272	365	438
February....	97	143	147	171	124	137	187	222	235	279	391	458
March.....	100	139	147	170	141	153	197	250	234	281	409	492
April.....	102	141	155	171	150	173	209	267	245	283	409	499
May.....	105	140	147	169	158	175	215	276	259	313	412	507
June.....	102	139	149	159	171	173	224	296	261	328	402	514
July.....	100	139	157	159	161	174	226	274	269	332	399	489
August.....	109	145	171	162	144	170	220	258	274	341	417	524
September.....	110	173	166	164	135	169	213	242	278	347	424	539
October.....	110	174	164	161	133	165	211	232	273	343	444	536
November.....	113	171	162	162	135	164	212	234	287	347	461	551
December.....	114	173	166	166	139	168	212	240	286	308	418	596

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

3.5.3 — PRICES

3.5.3.2 — Price index — Farmland rentals and sales, farm hands earnings and farm services — 1968-71

SPECIFICATION	INDEX NUMBERS (1966 = 100)							
	1968		1969		1970		1971	
	1st semester	2nd semester	1st semester	2nd semester	1st semester	2nd semester	1st semester	2nd semester
Farmland cash rentals								
Cropland	151	160	183	214	248	288	332	396
Grassland pasture	148	169	179	194	224	274	312	363
Grazing lands	157	165	197	213	239	266	303	339
Average price of farmland rentals								
Cropland plus grassland pasture	149	166	180	200	231	278	318	372
Cropland plus grazing land	155	164	192	213	242	272	311	355
Sales value of farmlands								
Cropland	131	133	147	154	173	189	207	229
Fields	132	137	167	173	191	216	251	273
Pastures	134	141	145	151	163	185	218	230
Woodland	127	138	150	159	173	187	216	244
Average price of farmland	132	138	148	154	168	190	211	235
Farm hands earnings								
Per month								
Manager	140	154	167	183	214	233	258	275
Foreman	150	159	176	201	224	246	275	305
Tractor driver	146	147	169	177	197	222	252	269
Regular farm hands	151	158	174	187	205	234	268	290
Per day								
Farm hands temporary	154	162	182	193	212	238	273	296
Monthly average earnings	153	160	178	191	210	236	271	293
Payment of farm services								
Tractor hire	150	156	162	166	191	211	251	283
Truck hire	160	170	200	210	260	340	390	440

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

3.6 — SERVICES

3.6.1 — HOTELS AND OTHER LODGING PLACES

3.6.1.1 — Number of establishments, guest rooms, persons employed and invested capital — 1969

SPECIFICATION	NUMBERS
Establishments	12 597
According to category	
Hotels	8 324
Luxury class.....	43
1st class.....	244
2nd class.....	811
3rd class.....	7 226
Boarding houses	4 090
Motels.....	183
Guest rooms	212 907
Apartments.....	42 805
Married couple.....	30 113
Single person.....	12 692
Rooms.....	167 518
Married couple.....	32 675
Single person.....	134 843
Suites.....	2 584
Persons employed	77 704
Full time.....	71 181
Management	18 556
Entrance hall.....	6 965
Telephone service.....	904
Chamber service	4 641
Kitchen and pantry	18 319
Restaurant and bar.....	5 706
Cleaning and repair	11 373
Other.....	4 717
Temporary.....	6 523
Capital invested (Cr\$ 1 000)	386 411

SOURCE — Instituto Brasileiro de Estatística.

- NOTES** — 1. **Luxury class hotels** — Defined as those having room, reception bureau, living room, reading rooms, banquet hall, meeting, seminar, and congress halls, a la carte restaurant, apartments with private bath, cold and hot water, air conditioning or central heating, suites, inside and outside telephones, barber-shop, hairdresser, office and kitchen equipments, linen room, 1st quality tableware, hosts, service and cargo lifts, uniformly dressed personnel and personnel at reception bureau speaking foreign languages.
2. **Hotels, 1st class** — Those having reception room, reception bureau, living and reading rooms, bar and restaurant, apartments with bath and cold and hot water, air conditioning or central heating, inside telephones, barber-shop, linen room, 1st quality tableware, host and service lifts, uniformly dressed personnel, and personnel at reception bureau speaking foreign languages.
3. **Hotels, 2nd class** — Those having reception room, reception bureau, living room, office, 40 percent of apartments with private bath and inside telephone, lifts, and uniformly dressed personnel.
4. **Hotels, 3rd class** — Those not presenting the facilities listed above.
5. **Boarding houses** — Small establishments with family characteristics, having furnished units with average comfort, and charging monthly or daily rates basis.
6. **Motels** — Lodging establishments often located along roadways, and having furnished rooms or apartments, and parking facilities.

3.7 — TRANSPORTATION

3.7.1 — RAILWAYS

3.7.1.1 — Length of lines in operation, by main characteristics — 1962-1971

SPECIFICATION	NUMBERS			
	1962	1965	1968	1971
Length of lines in operation (km).....	36 572	33 864	32 054	31 379
By ownership and administration				
Union.....	28 474	26 114	24 864	24 772
States.....	3 289	6 749	5 843	5 160
Private.....	4 809	1 001	1 347	1 447
By gauge				
Narrow (less than 1.00 m).....	734	267	223	218
Current (1.00 m).....	32 324	29 986	28 209	27 663
Large (1.44m — 1.60m).....	3 514	3 611	3 622	3 498
By enterprise				
Rede Ferroviária Federal S.A.....	28 023	26 114	24 864	24 772
Other administration.....	8 549	7 750	7 190	6 607
By motive power				
Electric.....	2 385	2 505	2 450	2 671
Rede Ferroviária Federal S.A.....	1 140	1 193	1 199	1 561
Other administration.....	1 245	1 312	1 251	1 110
Non-electric.....	34 187	31 359	29 604	28 708

SOURCES — Departamento Nacional de Estradas de Ferro and Rede Ferroviária Federal S.A.

3.7.1 — RAILWAYS

3.7.1.2 — Length of lines in operation, by States and Territories — 1971

STATES AND TERRITORIES	LENGTH (km)		
	Total	By enterprises	
		Rede Ferroviária Federal S.A.	Other administration
Rondônia, Territory.....	366	—	366
Pará.....	117	—	117
Amapá, Territory.....	194	—	194
Maranhão.....	449	449	—
Piauí.....	474	474	—
Ceará.....	1 319	1 319	—
Rio Grande do Norte.....	472	472	—
Paraíba.....	692	692	—
Pernambuco.....	1 268	1 266	—
Alagoas.....	385	385	—
Sergipe.....	270	270	—
Bahia.....	1 959	1 959	—
Minas Gerais.....	6 372	5 282	1 090
Espírito Santo.....	560	384	176
Rio de Janeiro.....	1 604	1 604	—
Guanabara.....	128	128	—
São Paulo.....	5 673	1 009	4 664
Paraná.....	1 895	1 895	—
Santa Catarina.....	1 358	1 358	—
Rio Grande do Sul.....	3 663	3 663	—
Mato Grosso.....	1 167	1 167	—
Goiás.....	928	928	—
Brasília, Federal District.....	66	66	—
BRAZIL.....	31 379	24 772	6 607

SOURCE — Departamento Nacional de Estradas de Ferro.

3.7.1 — RAILWAYS

3.7.1.3 — Rolling stock, traffic, energy consumption, personnel and financial results — 1962-1971

SPECIFICATION	NUMBERS			
	1962	1965	1968	1971
Rolling stock as of Dec. 31				
Locomotives.....	2 941	2 233	1 984	1 819
Steam.....	1 582	935	516	263
Diesel.....	1 120	1 118	1 277	1 369
Electric.....	239	180	191	187
Railcars.....	—	15	110	447
Passenger cars.....	5 309	4 264	4 065	3 829
Freight cars.....	59 888	50 676	48 273	55 589
Traffic				
Actual				
Passengers (1 000).....	477 703	405 736	367 376	308 310
Livestock (1 000 metric tons).....	1 386	1 420	992	426
Luggage and mail (1 000 metric tons).....	603	436	176	118
Commodities (1 000 metric tons).....	47 353	53 747	59 471	48 708
In kilometers				
Passenger-km (1 000 000).....	17 926	16 684	13 803	11 232
Livestock (1 000 000 ton-km).....	582	556	446	203
Luggage and mail (1 000 ton-km).....	117 971	106 362	37 649	24 751
Commodities (1 000 000 ton-km).....	14 921	18 259	21 528	17 155
Energy consumption				
Electric power (MWh).....	542 032	538 016	558 911	501 538
Firewood (metric tons).....	792 000	415 810	185 579	125
Fuel oils (metric tons).....	530 594	188 856	147 840	47 537
Diesel oil (metric tons).....	—	283 929	283 989	339 630
Coal (metric tons).....	193 325	82 155	38 880	27 661
Personnel	204 570	197 393	176 205	164 832
Financial results (Cr\$ 1 000)				
Revenue.....	51 260	296 396	593 351	1 108 472
Expenditure.....	126 897	631 314	1 155 046	2 127 390
Personnel.....	92 010	405 699	722 526	1 215 245
Other.....	34 887	225 615	432 520	912 145
Balance.....	— 75 637	— 334 918	— 561 695	— 1 018 918

SOURCES — Departamento Nacional de Estradas de Ferro and Rede Ferroviária Federal S.A.

(1) In 1 000 cubic meters.

3.7.1 — RAILWAYS

3.7.1.4 — Rede Ferroviária Federal — 1962-1971

a) Rolling stock, traffic, energy consumption, personnel and financial results

SPECIFICATION	NUMBERS			
	1962	1965	1968	1971
Rolling stock as of Dec. 31				
Locomotives.....	2 016	1 639	1 441	1 278
Steam.....	1 114	736	456	241
Diesel.....	803	832	919	974
Electric.....	99	71	66	63
Passenger cars.....	3 302	2 875	2 865	2 682
Freight cars.....	34 329	32 091	31 699	30 948
Traffic				
Actual				
Passengers (1 000).....	424 469	353 282	313 380	261 219
Livestock (1 000 metric tons).....	807	2 118	1 221	286
Luggage and mail (1 000 metric tons).....	433	304	123	77
Commodities (1 000 metric tons).....	27 757	28 514	29 893	30 226
In kilometers				
Passengers-km (1 000).....	14 510 419	13 093 395	9 993 571	7 765 492
Livestock (1 000 ton-km).....	300 080	868 501	595 118	136 737
Luggage and mail (1 000 ton-km).....	87 160	72 992	26 268	15 966
Commodities (1 000 ton-km).....	7 701 268	8 806 000	10 204 115	11 427 632
Energy consumption				
Electric power (MWh).....	231 238	249 535	257 968	225 768
Firewood (1 000 m ³).....	1 052	430	218	104
Fuel oil (metric tons).....	261 141	194 549	106 242	46 787
Diesel oil (metric tons).....	167 601	161 629	215 785	226 506
Coal (metric tons).....	190 810	82 133	38 880	27 549
Personnel	153 153	145 821	127 427	120 515
Financial (Cr\$ 1 000)				
Revenue.....	29 558	182 179	408 687	759 278
Expenditure.....	95 636	452 464	758 746	1 384 756
Personnel.....	69 698	297 677	461 489	810 625
Other.....	25 938	154 787	297 257	574 131
Balance.....	- 66 078	- 270 285	- 350 059	- 625 478

SOURCE — Rede Ferroviária Federal S.A.



FEDERAL HIGHWAY SYSTEM

In 1971, the Federal highway network was extended 3,846 km to a total length, by the end of the year, of 57,103 km, 25,591 km of which are paved.

The National Highway Department (Departamento Nacional de Estradas de Rodagem — DNER) has the task of preparing and carrying out planning in accordance with the Federal highway policy, and also of supervising the state and country (municipal) road systems so as to integrate them in a national system of motor roads.

In 1971, apart from construction of the 3,846 km of new highways in the Federal network, 2,225 km were paved and restored, and 6,647 meters of bridges, viaducts and other engineering works built, enabling innumerable thoroughfares to be opened to traffic.

The most important stretches of highway concluded in 1971 were the following: BR-101/468 (Curitiba-Torres), 546 km paved, last section built of the new Southern Trunk Road; prolongation of BR-101 (Litorânea do Brasil — seaboard highway), extending from Natal in Rio Grande do Norte to Osório in Rio Grande do Sul; BR-116/304 (Natal-Fortaleza), 512 km paved, integrated in the Basic Network of the Northeast, the purpose of which is to provide that region with the necessary infrastructure for development; BR-153 (Belém-Brasília), conclusion of the Ceres-Jaraguá section, 53 km in length; BR-227 (Currais Novos-Jardim do Seridó), extremely important for marketing the agricultural production of the Seridó region, where cotton is grown on a large scale; BR-265 (Muriaé, MG — São José do Rio Preto, SP), conclusion of the São João de Rei-Lavras section which, by interconnecting two important regions of Minas Gerais — Campos das Vertentes and South of Minas — makes for better exchange of goods with the economic areas in the interior of São Paulo; BR-290 (Osório-Uruguaiana), conclusion of the Rosário do Sul-Alegrete section of this highway which, as the main artery crossing the state east to west from the coast to the Argentine border and passing through the state capital, facilitates the disposal of a large part of the production of the southern central region of the state via Porto Alegre and the seaport of Rio Grande; BR-381 (Governador Valadares-Bragança Paulista), conclusion of the Governador Valadares-Ipatinga section of this major artery crossing Minas Gerais diagonally NE-SW and linking São Paulo to the Northeast, by BR-116; BR-116 (Fortaleza in Ceará to Jaguarão in Rio Grande do Sul), conclusion of the Fortaleza-Salgueiro section, of great utility for welding together the basic network of the Northeast.

Work on the Trans-Amazonian Highway proceeded apace in 1971. The plans of construction of this important artery fix one terminal in João Pessoa, state capital of Paraíba, and the other on the Peruvian border, the total length being divided into 4 working sections. The first section, already laid, links the Atlantic seaboard in the Northeast to Estreito on the Belém-Brasília Highway; the second, begun in 1970, runs from Estreito to Itaituba, i.e. from the river Tocantins to the river Tapajós; the third, begun in March 1971, connects Itaituba to Humaitá; and the fourth, traced from Humaitá as far as Sena Madureira, will form the main link with BR-236 joining Humaitá to the Peruvian frontier, completion being scheduled for the beginning of 1974.

Cuiabá-Santarém, another artery designed to integrate the highway system in the National Integration Program, is to cross the Trans-Amazonian at right angles, forming with the latter a twofold axis for the interconnection of economic activities in the two directions, East-West and North-South.

3.7.2 — HIGHWAYS

3.7.2.1 — Length of roads in operation — 1965-1971

a) Summary

YEARS	LENGTH OF HIGHWAYS			
	Total	Federal roads	State roads	Municipal roads
ABSOLUTE NUMBERS (km)				
1965.....	803 068	36 170	99 568	667 330
1968.....	939 613	46 850	114 183	778 580
1971.....	1 217 725	56 234	139 594	1 021 897
RELATIVE NUMBERS				
1965.....	100,0	4,5	12,4	83,1
1968.....	100,0	4,9	12,2	82,9
1971.....	100,0	4,6	11,5	83,9

SOURCE — Departamento Nacional de Estradas de Rodagem.

A forest trail for the laying of the Trans-Amazon highway





Clover leaf in Presidente Dutra highway

3.7.2 — Highways

3.7.2.1 — Length of roads in operation — 1962-1971

b) Federal highways

YEARS	LENGTH OF HIGHWAYS		
	Total	Paved	Unpaved
ABSOLUTE NUMBERS (km)			
1962.....	36 290	10 854	25 436
1965.....	36 170	13 039	23 131
1968.....	46 850	19 352	27 498
1971.....	56 234	27 384	28 850
INDEX NUMBERS (1961=100)			
1962.....	102	113	98
1965.....	102	136	90
1968.....	132	202	106
1971.....	159	286	112

SOURCE — Departamento Nacional de Estradas de Rodagem.

3.7.2 — HIGHWAYS

3.7.2.2 — Motor vehicles licenced, by type and motive power — 1969-70

a) Passenger cars

SPECIFICATION	NUMBERS	
	1969	1970
TOTAL	2 143 092	2 484 285
Type of vehicle		
Automobile	1 521 884	1 795 846
Station wagon	283 082	317 003
Bus — 13-20 passengers	1 182	1 309
Bus — 21-28 passengers	2 052	2 065
Bus — 29 passengers and over	47 872	47 393
Jeeps	197 694	211 460
Motor-bicycle	74 613	69 938
Motorcycle	14 713	19 271
Motive power		
Gasoline	2 091 061	2 409 696
Diesel oil	51 852	54 351
Electric	179	238

SOURCE — Instituto Brasileiro de Estatística.



3.7.2 — HIGHWAYS

3.7.2.2 — Motor vehicles licenced, by type and motive power — 1969-70

b) Freight trucks

SPECIFICATION	NUMBERS	
	1969	1970
TOTAL	615 615	645 417
Type of vehicle		
Trucks and combinations	434 193	444 765
Ordinary	409 590	417 101
Dumper trucks	15 671	18 367
Tanker	8 142	8 365
Refrigerator trucks	790	932
Light-duty trucks	164 342	183 087
Heavy-duty trucks	3 113	3 514
Refrigerator trucks (heavy)	146	322
Trailer	12 007	10 833
Other	1 814	2 896
Motive power		
Gasoline	452 472	455 704
Diesel oil	147 877	142 789
Without motive power	15 266	14 669
Other		32 255

SOURCE — Instituto Brasileiro de Estatística.

3.7.2 — HIGHWAYS

3.7.2.2 — Motor vehicles licenced, by type and motive power — 1969-70

c) Other vehicles

SPECIFICATION	NUMBERS	
	1969	1970
TOTAL	11 364	16 857
Type of vehicle		
Tow-truck.....	6 483	6 588
Ambulance.....	2 995	3 192
Wrecking car.....	640	822
Hearse.....	712	854
Other.....	534	5 401
Motive power		
Gasoline.....	5 923	10 441
Diesel oil.....	5 441	6 416

SOURCE — Instituto Brasileiro de Estatística.

3.7.3 — WATERBORNE TRANSPORTATION

3.7.3.1 — Domestic merchant fleet, according to main characteristics — 1971

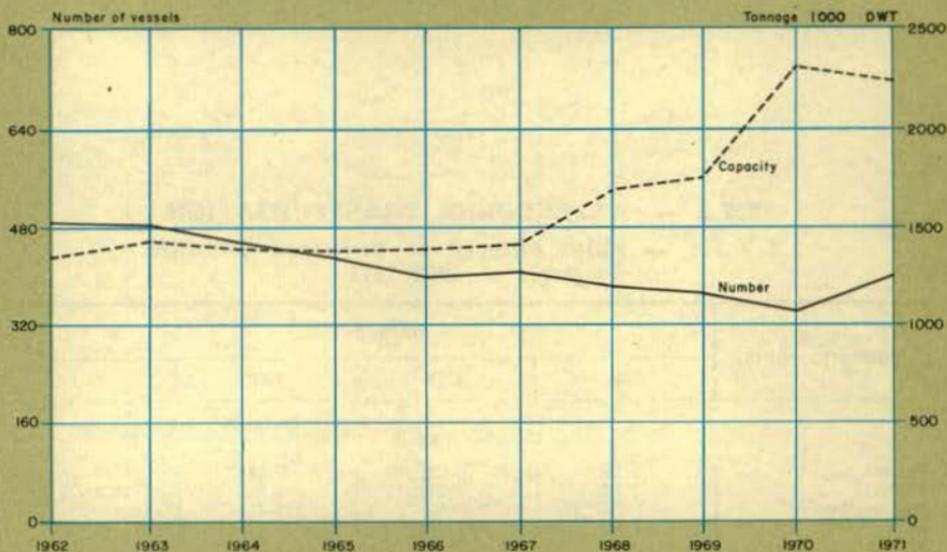
SPECIFICATION	MERCHANT FLEET							
	Number				Tonnage (DWT)			
	Total	Coastwise shipping	Inland waterways	Seagoing vessels	Total	Coastwise shipping	Inland waterways	Seagoing vessels
Cargo carriers	352	114	165	73	1 387 012	404 670	59 458	922 884
State owned.....	126	14	74	38	648 079	54 068	21 683	572 328
Companhia de Navegação Lóide Brasileiro.....	36	5	—	31	288 343	25 234	—	263 109
Companhia Siderúrgica Nacional	2	2	—	—	23 554	23 554	—	—
Empresa de Navegação da Amazônia S.A. — ENASA.....	45	4	41	—	16 621	3 936	12 685	—
Companhia de Navegação Baiana	8	—	8	—	2 163	—	2 163	—
Companhia de Navegação São Francisco.....	10	—	10	—	1 345	—	1 345	—
Serviço de Navegação da Bacia do Prata.....	14	—	14	—	5 361	—	5 361	—
Governo do Território Federal de Rondônia.....	1	—	1	—	129	—	129	—
Frota Nacional de Petróleos — FRONAPE.....	3	3	—	—	1 344	1 344	—	—
Vale do Rio Doce Navegação S.A. — DOCENAVE (1).....	7	—	—	7	309 219	—	—	309 219
Private ownership (2).....	226	100	91	35	738 933	350 602	37 775	350 556
Petroleum carriers	54	8	16	30	877 485	80 525	14 894	802 066
State owned (3).....	34	4	—	30	857 181	55 115	—	802 066
Private ownership (4).....	20	4	16	—	20 304	5 410	14 894	—
TOTAL	406	122	181	103	2 264 497	465 195	74 352	1 724 950

SOURCE — Superintendência Nacional da Marinha Mercante.

NOTE — Ships with over 100 DWT.

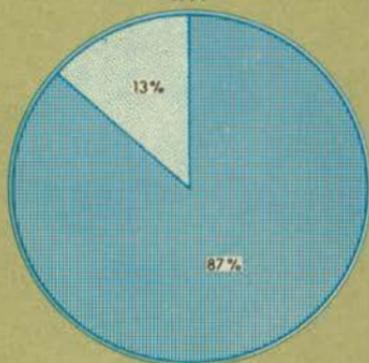
(1) Chartered ships excluded. (2) Only enterprises with over 10 000 DWT. (3) Coastwise and international sea-borne shipping. (4) Only enterprises with over 1 000 DWT.

DOMESTIC MERCHANT FLEET



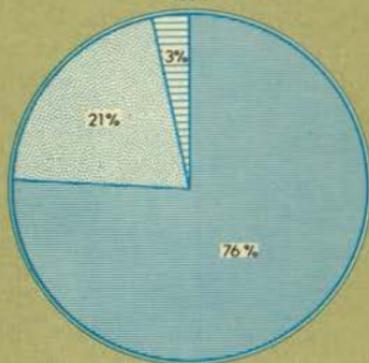
TYPE OF VESSEL

1971



ACTIVE VESSELS

1971



Dry cargo



Petroleum carriers



Seagoing vessels



Coastal shipping



Inland waterways

3.7.3 — WATERBORNE TRANSPORTATION
3.7.3.2 — Ships entered at principal domestic ports — 1962-1971

PRINCIPAL DOMESTIC PORTS	SHIPS ENTERED			
	1962	1965	1968	1971
ABSOLUTE NUMBERS				
Manaus.....	1 727	1 788	993	1 225
Belém.....	1 296	1 052	1 500	3 120
Fortaleza (Mucuripe).....	706	587	713	741
Recife.....	1 597	1 186	1 256	1 181
Maceió.....	309	146	201	161
Salvador.....	1 266	802	851	1 236
Tubarão (terminal).....	—	—	223	519
Vitória.....	1 002	925	655	586
Rio de Janeiro.....	3 974	2 620	3 161	2 812
Santos.....	3 338	3 042	3 646	4 075
Paranáguá.....	797	659	849	840
Porto Alegre.....	11 638	9 857	16 478	(2) 1 793
Rio Grande.....	1 657	1 960	1 985	1 673
Other.....	10 231	9 105	9 691	9 592
TOTAL.....	39 538	33 729	42 202	29 654
INDEX NUMBERS (1961=100)				
Manaus.....	149	154	86	106
Belém.....	86	70	100	208
Fortaleza (Mucuripe).....	97	81	98	102
Recife.....	90	67	70	86
Maceió.....	112	53	73	59
Salvador.....	89	56	60	87
Tubarão (terminal) (1).....	—	—	111	258
Vitória.....	98	90	64	57
Rio de Janeiro.....	100	66	80	71
Santos.....	93	85	101	113
Paranáguá.....	100	83	107	118
Porto Alegre.....	63	54	90	(2) 10
Rio Grande.....	84	99	101	85
Other.....	94	83	89	88
TOTAL.....	83	71	89	(2) 62

SOURCE — Departamento Nacional de Portos e Vias Navegáveis.

(1) 1967=100. (2) Prior to 1971, data included ships in transit.

3.7.3 — WATERBORNE TRANSPORTATION
3.7.3.3 — Cargo carried at principal domestic ports — 1962-1971

PRINCIPAL DOMESTIC PORTS	CARGO CARRIED			
	1962	1965	1968	1971
ABSOLUTE NUMBERS (1 000 metric tons)				
Manaus.....	599	569	664	1 358
Belém.....	828	797	993	2 924
Fortaleza (Mucuripe).....	570	581	986	953
Recife.....	1 863	1 591	1 907	2 429
Maceió.....	308	263	589	792
Salvador.....	880	764	537	671
Tubarão (terminal).....	—	—	11 561	27 111
Vitória.....	6 418	10 232	2 602	2 864
Rio de Janeiro.....	14 759	13 902	19 614	23 113
Santos.....	12 775	12 958	16 562	13 524
Paranaguá.....	860	1 116	2 100	3 126
Porto Alegre.....	3 032	2 841	3 621	5 471
Rio Grande.....	2 755	2 639	2 600	3 136
Other.....	6 412	3 566	4 447	7 707
TOTAL.....	52 059	51 819	68 783	95 179
INDEX NUMBERS (1961=100)				
Manaus.....	129	122	143	292
Belém.....	94	90	112	332
Fortaleza (Mucuripe).....	103	105	178	172
Recife.....	110	94	112	143
Maceió.....	108	82	207	278
Salvador.....	90	79	55	69
Tubarão (terminal) (1).....	—	—	132	309
Vitória.....	118	187	48	52
Rio de Janeiro.....	156	147	208	245
Santos.....	99	100	128	104
Paranaguá.....	106	138	259	385
Porto Alegre.....	98	82	117	177
Rio Grande.....	109	104	103	124
Other.....	87	48	60	104
TOTAL.....	112	111	148	205

SOURCE — Departamento Nacional de Portos e Vias Navegáveis.

(1) 1967=100.

3.7.4 — AIRBORNE TRANSPORTATION
3.7.4.1 — Comercial airborne traffic at principal airports — 1971

(continues)

AIRPORTS	TRAFFIC							
	Flights	Passengers			Mail (kg)		Cargo (kg)	
		Dis-embarked	Embarked	Transit	Dis-embarked	Embarked	Dis-embarked	Embarked
SÃO PAULO.....	26 229	914 487	899 350	89 967	378 717	722 333	9 399 445	13 625 641
Domestic lines.....	22 319	775 094	773 082	27 020	299 412	608 125	8 414 316	12 316 204
International lines.....	3 910	139 393	126 268	62 947	79 305	114 208	985 129	1 309 437
GALEÃO.....	19 970	742 343	710 264	346 481	869 518	812 735	11 956 806	14 877 435
Domestic lines.....	10 873	394 414	348 009	89 611	150 368	373 807	2 503 482	4 949 827
International lines.....	9 097	347 929	362 255	256 870	719 150	438 928	9 453 324	9 927 608
SANTOS DUMONT.....	15 326	477 318	523 889	4 192	173 865	401 257	2 104 013	6 191 962
Domestic lines.....	15 326	477 318	523 889	4 192	173 865	401 257	2 104 013	6 191 962
RECIFE.....	6 442	146 906	142 770	99 860	325 396	160 618	3 897 904	2 222 930
Domestic lines.....	6 044	139 930	137 470	70 078	314 048	157 714	3 820 742	2 208 852
International lines.....	398	6 976	5 300	29 782	11 348	2 904	77 162	14 078
BRASÍLIA.....	6 320	189 203	178 434	81 927	133 620	91 815	1 714 782	1 192 278
Domestic lines.....	6 005	184 615	174 175	67 101	127 750	90 776	1 605 196	1 143 051
International lines.....	315	4 588	4 259	14 826	5 870	1 039	109 586	49 227
SALVADOR.....	6 298	121 743	123 059	94 452	216 985	68 844	2 561 065	1 197 311
Domestic lines.....	6 298	121 743	123 059	94 452	216 985	68 844	2 561 065	1 197 311

3.7.4 — AIRBORNE TRANSPORTATION

3.7.4.1 — Comercial airborne traffic at principal airports — 1971

(conclusion)

AIRPORTS	TRAFFIC							
	Flights	Passengers			Mail (kg)		Cargo (kg)	
		Dis-embarked	Embarked	Transit	Dis-embarked	Embarked	Dis-embarked	Embarked
BELO HORIZONTE.....	5 481	151 471	151 042	36 750	38 006	24 611	931 886	511 122
Domestic lines.....	5 481	151 471	151 042	36 750	38 006	24 611	931 886	511 122
PORTO ALEGRE.....	5 295	149 353	151 660	44 738	167 682	135 481	2 286 955	2 552 434
Domestic lines.....	3 313	136 536	139 008	526	160 854	128 785	2 209 233	2 315 497
International lines.....	1 982	12 817	12 652	44 212	6 828	6 696	77 722	236 937
VIRACOPOS.....	5 110	81 679	80 388	139 111	265 075	109 150	6 273 522	6 751 409
Domestic lines.....	1 342	20 605	14 319	20 069	3 043	5 809	106 311	39 657
International lines.....	3 768	71 074	66 069	119 042	262 032	103 341	6 167 211	6 711 752
BELÉM.....	4 364	133 286	133 966	70 818	167 108	117 948	3 067 702	2 695 510
Domestic lines.....	4 050	126 544	128 080	21 708	165 696	114 402	2 894 962	2 522 562
International lines.....	314	6 742	5 886	49 110	1 412	3 546	172 740	172 948
FORTALEZA.....	3 742	63 837	71 934	43 790	141 263	98 851	1 430 979	1 400 308
Domestic lines.....	3 742	63 837	71 934	43 790	141 263	98 851	1 430 979	1 400 308
MANAUS.....	3 490	100 706	101 616	10 022	122 974	89 790	4 680 730	2 732 210
Domestic lines.....	2 944	88 814	90 588	—	103 650	84 022	3 003 810	2 454 518
International lines.....	546	11 892	11 028	10 022	19 324	5 768	1 676 920	277 692
SÃO LUÍS.....	2 880	35 535	36 754	59 360	81 766	30 889	760 625	302 944
Domestic lines.....	2 880	35 535	36 754	59 360	81 766	30 889	760 625	302 944
CURITIBA.....	2 576	62 832	62 963	35 317	61 652	32 566	549 187	140 517
Domestic lines.....	2 576	62 832	62 963	35 317	61 652	32 566	549 187	140 517
VITÓRIA.....	1 858	31 531	26 378	17 142	22 478	8 165	262 649	72 244
Domestic lines.....	1 858	31 531	26 378	17 142	22 478	8 165	262 649	72 244

SOURCE — Departamento de Aviação Civil.

NOTE — Data in this table refer to traffic of regular commercial enterprises only.

TELECOMMUNICATIONS

Starting with the promulgation, in 1962, of the Brazilian Telecommunications Code, and the subsequent regulations, actual conditions were created to provide for the development of telecommunications in the Country. Among other provisions, this law created the Brazilian Communications Company (EMBRATEL) which, only after the development of the National Communications System, in 1965, started its operations.

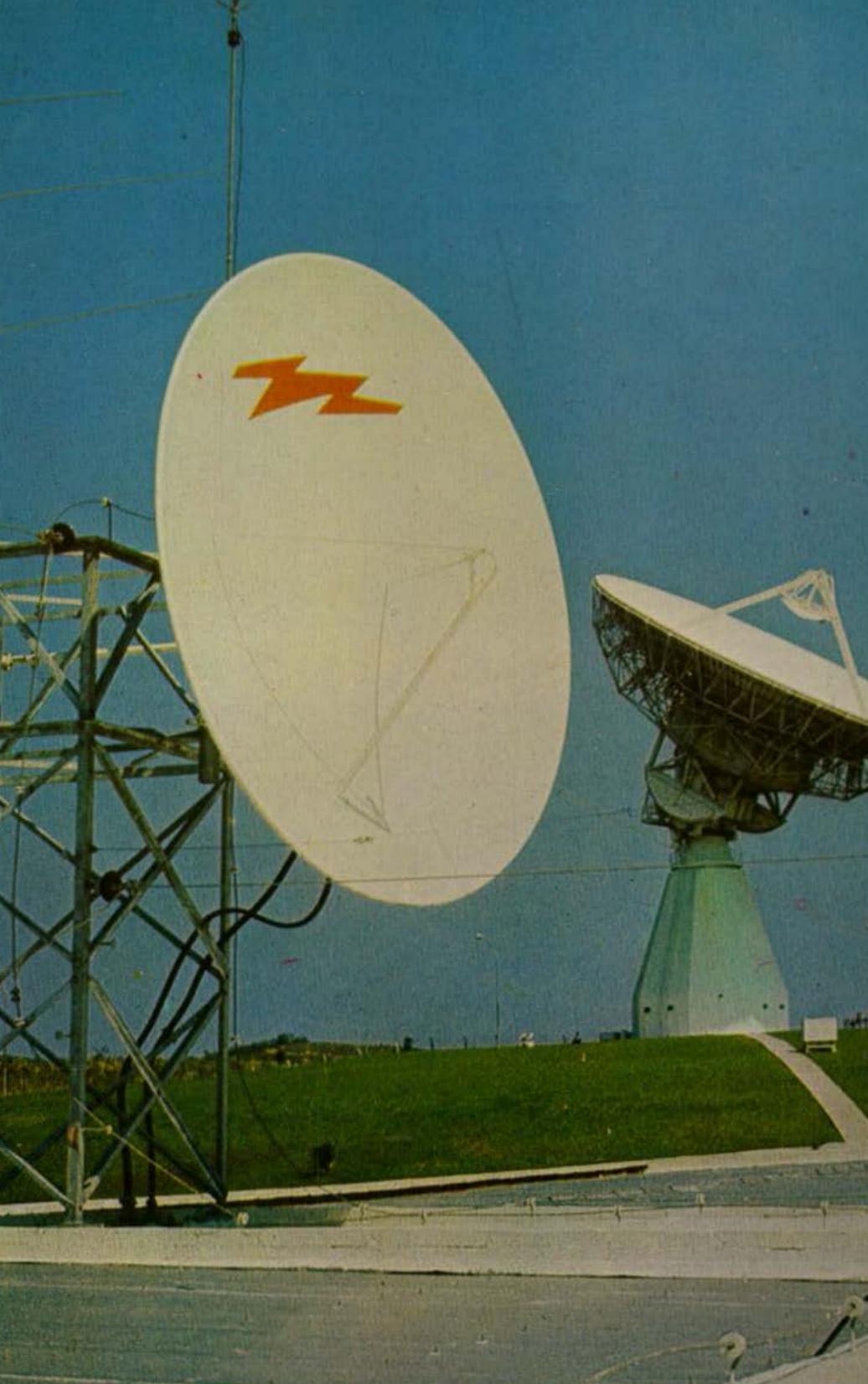
In 1966, the control of the capital stock of the Brazilian Telephone Company (CTB) and its subsidiaries operating in four states — São Paulo, Guanabara, Minas Gerais and Espírito Santo — currently responsible for 60% of the telephone services in Brazil, was turned over to EMBRATEL. In 1967, the Ministry of Communications was created to attend to the growing need for policy-making and its follow-up in the telecommunications sector.

Following its establishment, the National Telecommunications System could claim an extensive microwave and troposcatter network, which required a corresponding increase in telephone terminals in several regions of the Country. Over the last 5 years, the telephone system in Brazil increased at an average annual rate of 9.2% (against 4.7% in 1960-64), surpassing the average world percentage of the latest years — approximately 6.6%. From 1969 onwards, Brazil was the leading country, in South America, in total number of telephone receivers installed, and currently holds 32.3% of the total number of telephones in this Continent. During the above mentioned period, CTB installed almost half a million terminals, thus creating an approximate increase of 75% in relation to the terminals operated by the Company in 1966. The long distance system plan enforced by CTB showed, by 1971, an expansion of 70%.

CTB and its subsidiaries are undertaking a program for absorbing small and medium-sized telephone companies, at a growing speed. The guidelines of the program aim at improving the integration of telephone services through the incorporation of local companies lacking economic and financial means to make the investments required by modernization.

The international traffic has had a significant increase, too. This is due, among other factors, to the operation of several trunk lines in the vast EMBRATEL's microwave and troposcatter network, which enables speedier and better access to several towns. Since 1969, the Satellite Communications Ground Station is operating commercially in Itaboraí, Rio de Janeiro State. Today, Brazil's rank in the world satellite traffic is ninth, which allows for its participation in the Board of Governors of the International Telecommunications Union, that includes the thirteen leading countries in traffic volume.

EMBRATEL sells several services via satellite: telephone, telex, telegraph, data computing, high-fidelity programs, mono-color or multicolor TV, and fac-simile. In Rio de Janeiro and São Paulo, EMBRATEL operates the Sistecon System (hot-line), exclusively to New York. Sistecon was established in September, 1971, with an initial capacity of 25 lines, one of them for operational control.



3.8 — COMMUNICATIONS

3.8.1 — TELECOMMUNICATIONS

3.8.1.1 — Circuits for domestic telephone traffic: 31-12-1972

(continues)

GROUP A-B	TELEPHONE CIRCUITS									
	All total	Route A-B				Route B-A				Two-way manual
		Total	Manual	Half-automatic	Auto-matic	Total	Manual	Half-automatic	Auto-matic	
Aracaju — Maceió.....	3	2	2	—	—	1	1	—	—	—
Aracaju — Salvador.....	29	15	—	15	—	14	—	—	14	—
Anápolis — Belo Horizonte.....	10	10	—	10	—	—	—	—	—	—
Anápolis — Brasília.....	41	15	3	—	12	26	1	—	25	—
Anápolis — Goiânia.....	27	15	3	—	12	12	2	10	—	—
Anápolis — São Paulo.....	1	1	1	—	—	—	—	—	—	—
Araraquara — São Paulo.....	30	18	5	13	—	12	4	8	—	—
Avaré — São Paulo.....	6	3	1	2	—	3	1	2	—	—
Araguari — Belo Horizonte.....	2	1	1	—	—	1	1	—	—	—
Araguari — Brasília.....	1	—	—	—	—	—	—	—	—	1
Araguari — Uberaba.....	1	—	—	—	—	—	—	—	—	1
Balneário de Camburiú — Joinvile.....	4	—	—	—	—	—	—	—	—	4
Bebedouro — São Paulo.....	3	—	—	—	—	—	—	—	—	3
Belo Horizonte — Governador Valadares.....	63	27	6	—	21	36	—	12	24	—
Belo Horizonte — Brasília.....	84	46	2	—	44	38	2	—	36	—
Belo Horizonte — Cataguases.....	12	6	6	—	—	6	4	2	—	—
Belo Horizonte — Goiânia.....	24	—	—	—	—	24	—	—	24	—
Belo Horizonte — Juiz de Fora.....	16	8	3	5	—	8	2	6	—	—
Belo Horizonte — Patos de Minas.....	4	2	2	—	—	2	2	—	—	—
Belo Horizonte — Recife.....	24	10	—	—	10	14	—	—	14	—
Belo Horizonte — Rio de Janeiro.....	212	119	—	—	119	93	—	—	93	—
Belo Horizonte — Salvador.....	53	16	—	—	16	36	—	—	36	1
Belo Horizonte — São Paulo.....	146	87	6	—	81	59	—	—	59	—
Belo Horizonte — Uberlândia.....	15	7	4	3	—	8	4	4	—	—
Belo Horizonte — Uberaba.....	17	9	6	3	—	8	6	2	—	—
Belém — Brasília.....	23	22	1	—	21	1	1	—	—	—
Belém — Boa Vista.....	2	1	1	—	—	1	1	—	—	—
Belém — Imperatriz.....	2	1	1	—	—	1	1	—	—	—
Belém — Manaus.....	6	3	3	—	—	3	3	—	—	—
Belém — Macapá.....	10	—	—	—	—	3	—	3	—	7
Belém — Porto Velho.....	6	2	2	—	—	4	—	4	—	—
Belém — Rio Branco.....	7	2	2	—	—	4	—	4	—	—
Belém — Recife.....	1	—	—	—	—	—	—	—	—	1
Belém — Rio de Janeiro.....	64	36	1	—	35	28	3	—	25	—
Belém — São Paulo.....	3	1	1	—	—	2	2	—	—	—
Belém — São Luís.....	15	3	3	—	—	12	2	10	—	—
Blumenau — Caçador.....	1	—	—	—	—	1	—	1	—	—
Blumenau — Curitiba.....	81	51	3	18	30	30	—	—	30	—
Blumenau — Florianópolis.....	10	4	—	4	—	5	—	5	—	1
Blumenau — Joaçaba.....	5	—	—	—	—	5	—	5	—	—
Blumenau — Joinvile.....	10	4	—	4	—	6	—	6	—	—
Blumenau — São Paulo.....	19	19	—	—	19	—	—	—	—	—
Blumenau — Tubarão.....	6	3	—	3	—	3	—	3	—	—
Barra do Piraí — Rio de Janeiro.....	96	55	—	—	55	41	6	—	35	—

3.8 — COMMUNICATIONS

3.8.1 — TELECOMMUNICATIONS

3.8.1.1 — Circuits for domestic telephone traffic: 31-12-1972

(continues)

GROUP A-B	TELEPHONE CIRCUITS									
	All total	Route A-B			Route B-A				Two-way manual	
		Total	Ma-nual	Half-auto-matic	Auto-matic	Total	Ma-nual	Half-auto-matic		Auto-matic
Barretos — São Paulo.....	4	3	3	—	—	1	1	—	—	—
Bauru — Botucatu.....	4	—	—	—	—	—	—	—	—	4
Bauru — Campo Grande.....	8	3	3	—	—	5	4	1	—	—
Bauru — Marília.....	30	14	4	10	—	16	5	11	—	—
Bauru — Presidente Prudente.....	3	—	—	—	—	—	—	—	—	3
Bauru — Sorocaba.....	5	2	2	—	—	3	3	—	—	—
Bauru — São Paulo.....	48	25	6	19	—	23	7	16	—	—
Brasília — Cuiabá.....	1	—	—	—	—	—	—	—	—	1
Brasília — Goiânia.....	81	41	1	—	40	40	3	14	23	—
Brasília — Imperatriz.....	2	1	1	—	—	1	1	—	—	—
Brasília — Manaus.....	2	1	1	—	—	1	1	—	—	—
Brasília — Macapá.....	2	1	1	—	—	1	1	—	—	—
Brasília — Recife.....	4	1	1	—	—	3	3	—	—	—
Brasília — Rio de Janeiro.....	221	128	2	20	106	93	10	—	83	—
Brasília — São Luís.....	2	1	1	—	—	1	1	—	—	—
Brasília — Salvador.....	2	1	1	—	—	1	1	—	—	—
Brasília — São Paulo.....	96	35	3	—	32	61	1	—	60	—
Brasília — Uberaba.....	3	1	1	—	—	2	2	—	—	—
Brasília — Uberlândia.....	8	4	4	—	—	4	4	—	—	—
Botucatu — Sorocaba.....	5	3	3	—	—	2	2	—	—	—
Botucatu — São Paulo.....	14	8	2	6	—	6	6	—	—	—
Boa Vista — Manaus.....	2	1	1	—	—	1	1	—	—	—
Cuiabá — Chapada dos Guimarães.....	1	—	—	—	—	—	—	—	—	1
Cricúma — Porto Alegre.....	2	2	—	2	—	—	—	—	—	—
Chapecó — Curitiba.....	1	1	—	1	—	—	—	—	—	—
Concórdia — São Paulo.....	6	4	4	—	—	2	2	—	—	—
Campina Grande — Recife.....	16	12	5	7	—	4	1	3	—	—
Cachoeiro do Itapemirim — Vitória.....	45	25	1	24	—	20	1	19	—	—
Cachoeiro do Itapemirim — Rio de Janeiro.....	5	2	2	—	—	3	3	—	—	—
Cachoeiro do Itapemirim — Campos.....	4	2	2	—	—	2	2	—	—	—
Campos — Rio de Janeiro.....	36	20	4	16	—	16	16	—	—	—
Campos — Vitória.....	4	2	2	—	—	2	2	—	—	—
Campo Grande — Presidente Prudente.....	6	3	3	—	—	3	3	—	—	—
Campo Grande — Rio de Janeiro.....	8	6	1	5	—	2	2	—	—	—
Campo Grande — São Paulo.....	20	12	2	10	—	8	3	5	—	—
Corumbá — Campo Grande.....	9	5	2	3	—	4	—	4	—	—
Corumbá — Rio de Janeiro.....	2	1	1	—	—	1	1	—	—	—
Corumbá — São Paulo.....	5	3	3	—	—	2	2	—	—	—
Cuiabá — Corumbá.....	5	3	1	2	—	2	—	2	—	—
Cuiabá — Campo Grande.....	10	6	3	3	—	4	—	4	—	—
Cuiabá — Rio de Janeiro.....	6	4	4	—	—	2	2	—	—	—
Cuiabá — São Paulo.....	9	6	6	—	—	3	3	—	—	—
Curitiba — Florianópolis.....	62	32	—	5	27	30	1	29	—	—
Curitiba — Itajaí.....	4	4	—	4	—	—	—	—	—	—

3.8 — COMMUNICATIONS

3.8.1 — TELECOMMUNICATIONS

3.8.1.1 — Circuits for domestic telephone traffic: 31-12-1972

(continues)

GROUP A B	TELEPHONE CIRCUITS									
	All total	Route A-B				Route B-A				Two-way manual
		Total	Manual	Half-automatic	Automatic	Total	Manual	Half-automatic	Automatic	
Curitiba — Joinville	62	33	—	9	24	29	2	13	14	—
Curitiba — Lages	1	—	—	—	—	1	—	1	—	—
Curitiba — Mafra	2	2	—	2	—	—	—	—	—	—
Curitiba — Porto Alegre	92	45	4	—	41	47	4	—	43	—
Curitiba — Rio de Janeiro	118	66	3	—	63	52	7	—	45	—
Curitiba — São Paulo	234	131	7	—	124	103	7	—	96	—
Franca — São Paulo	8	4	1	3	—	4	1	3	—	—
Franca — Uberaba	1	—	—	—	—	—	—	—	—	1
Fortaleza — Natal	9	5	—	—	5	3	—	3	—	1
Fortaleza — Recife	42	26	1	5	20	16	1	—	15	—
Fortaleza — Rio de Janeiro	38	19	1	—	18	19	1	—	18	—
Fortaleza — São Luís	4	2	2	—	—	2	2	—	—	—
Fortaleza — São Paulo	32	16	1	—	15	16	1	—	15	—
Florianópolis — Joinville	11	5	—	5	—	5	—	5	—	1
Goiânia — Ceres	1	—	—	—	—	—	—	—	—	1
Goiânia — Goianésia	1	—	—	—	—	—	—	—	—	1
Goiânia — Jaraguá	1	—	—	—	—	—	—	—	—	1
Goiânia — São Paulo	2	2	2	—	—	—	—	—	—	—
Goiânia — Uberlândia	12	6	2	4	—	6	2	4	—	—
Goiânia — Uberaba	2	1	1	—	—	1	1	—	—	—
Governador Valadares — Rio de Janeiro ..	1	—	—	—	—	1	1	—	—	—
Governador Valadares — Vitória	1	—	—	—	—	1	1	—	—	—
Humaitá — Manicoré	1	—	—	—	—	—	—	—	—	1
Itapetininga — São Paulo	12	7	2	5	—	5	2	3	—	—
Itaperuna — Rio de Janeiro	6	4	4	—	—	2	2	—	—	—
Ituiutaba — Belo Horizonte	4	2	1	1	—	2	2	—	—	—
Ituiutaba — São Paulo	4	2	1	1	—	2	2	—	—	—
Ituiutaba — Uberaba	1	—	—	—	—	—	—	—	—	1
Juiz de Fora — Rio de Janeiro	23	13	3	10	—	10	10	—	—	—
Juiz de Fora — São Paulo	7	4	2	2	—	3	1	2	—	—
Juiz de Fora — Natal	7	3	2	1	—	4	1	3	—	—
João Pessoa — Recife	32	16	—	16	—	15	—	—	15	1
João Pessoa — Rio de Janeiro	5	5	—	5	—	—	—	—	—	—
Joinville — São Paulo	9	9	—	—	9	—	—	—	—	—
Lages — Porto Alegre	1	—	—	—	—	1	1	—	—	—
Londrina — São Paulo	18	10	—	—	10	8	—	—	8	—
Macaé — Rio de Janeiro	12	7	7	—	—	5	5	—	—	—
Maceió — Salvador	10	10	—	—	10	—	—	—	—	—
Maceió — Recife	43	26	1	3	22	16	—	—	16	1
Mogi das Cruzes — São Paulo	24	12	—	12	—	12	—	12	—	—
Maringá — São Paulo	18	10	—	—	10	8	—	—	8	—
Manaus — Manicoré	1	—	—	—	—	—	—	—	—	1
Manaus — Rio Branco	5	2	2	—	—	3	1	2	—	—
Manaus — Porto Velho	5	2	2	—	—	3	1	2	—	—

3.8 — COMMUNICATIONS

3.8.1 — TELECOMMUNICATIONS

3.8.1.1 — Circuits for domestic telephone traffic: 31-12-1972

(conclusion)

GROUP A-B	TELEPHONE CIRCUITS									
	All total	Route A-B				Route B-A				Two-way manual
		Total	Manual	Half-automatic	Automatic	Total	Manual	Half-automatic	Automatic	
Manaus — Rio de Janeiro.....	9	5	5	—	—	4	4	—	—	—
Manaus — São Paulo.....	5	3	3	—	—	2	2	—	—	—
Maringá — São Paulo.....	40	23	4	19	—	17	7	10	—	—
Natal — Recife.....	27	11	1	10	—	16	1	—	15	—
Natal — Rio de Janeiro.....	10	10	—	10	—	—	—	—	—	—
Rio Branco — Manaus.....	5	3	1	2	—	2	2	—	—	—
Rio Branco — Porto Velho.....	2	1	1	—	—	1	1	—	—	—
Porto Alegre — Rio de Janeiro.....	123	65	4	—	61	58	11	—	47	—
Porto Alegre — São Paulo.....	128	74	4	—	70	54	4	—	50	—
Pirajú — São Paulo.....	6	3	3	—	—	3	3	—	—	—
Presidente Prudente — São Paulo.....	49	28	4	3	21	21	5	—	16	—
Recife — Rio de Janeiro.....	75	39	1	—	38	36	1	—	35	—
Recife — Salvador.....	48	23	1	—	22	25	1	—	24	—
Recife — São Luís.....	1	—	—	—	—	—	—	—	—	1
Recife — São Paulo.....	72	36	1	—	35	36	1	—	35	—
Recife — Teresina.....	1	—	—	—	—	—	—	—	—	1
Rio de Janeiro — Salvador.....	102	47	1	—	46	55	1	—	54	—
Rio de Janeiro — São Paulo.....	1 048	553	6	—	547	494	6	—	489	1
Rio de Janeiro — São Luís.....	3	3	3	—	—	—	—	—	—	—
Rio de Janeiro — Teresina.....	2	1	1	—	—	1	1	—	—	—
Rio de Janeiro — Uberaba.....	2	1	1	—	—	1	—	1	—	—
Rio de Janeiro — Uberlândia.....	4	2	2	—	—	2	1	1	—	—
Rio de Janeiro — Volta Redonda.....	96	46	6	—	40	50	—	—	50	—
Rio de Janeiro — Vitória.....	169	84	12	—	72	85	4	10	71	—
Rio Preto — São Paulo.....	60	35	6	29	—	25	7	18	—	—
Salvador — São Paulo.....	35	19	1	—	18	16	1	—	15	—
São José dos Campos — São Paulo.....	60	35	5	30	—	25	12	13	—	—
São Paulo — Sorocaba.....	72	33	13	20	—	39	6	33	—	—
São Paulo — São José do Rio Preto.....	24	9	9	—	—	15	14	1	—	—
São Paulo — Teresina.....	1	—	—	—	—	—	—	—	—	1
São Paulo — Taubaté.....	6	3	3	—	—	3	3	—	—	—
São Paulo — Uberaba.....	11	4	4	—	—	7	2	5	—	—
São Paulo — Uberlândia.....	15	6	6	—	—	9	2	7	—	—
São Paulo — Volta Redonda.....	36	16	—	—	16	20	—	—	20	—
São Paulo — Vitória.....	9	4	4	—	—	5	2	3	—	—
Uberlândia — Rio Preto.....	17	9	7	2	—	8	7	1	—	—
Uberlândia — Uberaba.....	16	8	4	4	—	8	4	4	—	—
Uberaba — Rio Preto.....	6	3	3	—	—	3	3	—	—	—
TOTAL.....	5 326	2 805	338	430	2 037	2 477	327	355	1 795	44

SOURCE — Empresa Brasileira de Telecomunicações, S.A.—EMBRATEL.

3.8.1 — TELECOMMUNICATIONS

3.8.1.2 — Circuits for overseas traffic: 30-6-1972

COUNTRIES	CIRCUITS							
	Telephone			Telegraph				
	Traffic	Rented	Tele- commu- cation system	Telex (1)			Tele- graph	Rented
				Auto- matic	Half- auto- matic	Radio		
Germany.....	8	—	—	8	(2) 2	—	4	2
Argentina.....	15	—	—	—	7	—	1	13
Austria.....	—	—	—	—	(2) 4	—	—	—
Bolivia.....	(3) 2	—	—	—	—	—	(3) 1	—
Canada.....	3	—	—	—	(2) 2	—	1	—
Chile.....	2	—	—	—	—	—	—	—
Colombia.....	2	—	—	—	—	—	—	—
Spain.....	4	—	—	—	—	—	—	1
United States of America — ATT.....	37	—	—	—	—	—	—	—
United States of America — ATT.....	(3) 4	—	—	—	—	—	—	—
United States of America — ITT.....	—	3	—	8	1	—	2	29
United States of America — ITT.....	—	—	2	(2) 8	(2) 4	—	—	—
United States of America — RCA.....	—	1	—	11	(2) 3	1	1	19
United States of America — RCA.....	—	—	—	—	—	—	(3) 3	—
United States of America — WUI.....	—	—	—	9	(2) 3	—	1	5
United States of America — TRT.....	—	—	—	—	—	—	1	—
France.....	7	—	—	—	3	—	1	4
Netherlands.....	—	—	—	—	(2) 2	—	—	—
United Kingdom.....	4	—	—	6	4	—	—	2
Italy.....	10	—	—	5	(2) 4	—	1	1
Japan.....	2	—	—	—	(2) 5	—	—	2
Mexico.....	2	—	—	—	—	(2) 1	(3) 1	—
Paraguay.....	(3) 1	—	—	—	—	(2) 3	(3) 1	—
Peru.....	1	—	—	—	—	—	—	—
Portugal.....	5	—	—	—	—	—	1	—
Sweden.....	—	—	—	—	—	—	—	1
Switzerland.....	3	—	—	—	6	(2) 1	1	3
Uruguay.....	2	—	—	—	(2) 1	—	—	—
Uruguay.....	(3) 2	—	—	—	—	—	—	—
Venezuela.....	2	—	—	—	—	—	—	—
TOTAL.....	118	4	2	55	51	6	22	82

SOURCE — Empresa Brasileira de Telecomunicações S.A. — EMBRATEL.

(1) Discharge circuits. (2) Two-way circuits. (3) Circuits through HF.

MONEY AND CREDIT

In 1971, there occurred a 31% expansion of means of payment (against 26.7% in the preceding year). One can see, by roughly comparing the growth of the means of payment, the real product of the economy, and the inflationary rate, that there was compatibility between the evolution of liquidity and the growth of the Gross Domestic Product. The increase in the issues of currency continued to show a declining trend, thus reducing the percentage increase of currency in circulation.

During the last five years, there was a relative stability in the ratio "real currency stock/real product", indicating an equilibrium and a larger liquidity, in opposition to the declining trends showed in the pre-1964 period, deriving from the inflationary process which minimized the monetary assets in the hands of the economic agents. The development of the financial market also

contributed to the current liquidity trend. The increase of other financial assets compensated the tendency to the stability of money supply, thus leading to the belief that the real liquidity of the system was substantially heightened, which appears to have been essential to the process of reactivation of the growth rates of the economy, although it is not possible to quantify the ratio between credit expansion and the growth of Domestic Product.

The chief focus of monetary expansion, in 1971, consisted of loans from Banco do Brasil to the private sector, showing a growth of above 41% (against 35% in 1970), a rate higher than the growth of the real product of the economy.

The loans of the General Credit Department of Banco do Brasil, basically aimed at financing the working capital of the commercial, industrial, and service sectors, increased by 42% (against 33% in the preceding year). The Rural Credit Department, in turn, expanded its credit by 33% (38% in 1970), in compliance with the Government decision to attach greater priority to the credits in this sector, where the commercial banks have a very limited action. The credits granted by the Exchange Department and CACEX maintained the trend of accelerated growth. The granting of advances on the exchange contracts and other mechanisms of credit incentives have been factors of encouragement to exports.

On the other hand, re-discount operations, that showed a small relative variation in 1970, represented an important element of absorption of resources from the monetary authorities in 1971, and its balance as of December totalled Cr\$2,284 million, against Cr\$1,535 million in December, 1970. To this situation contributed the liquidity re-discount operations, with an increase of Cr\$ 165 million; the refinancing of exports of manufactures with Cr\$198 million; and the agricultural re-financing with the balance. The expansion of re-discount to manufactures for export was of 61%.

The behavior of commercial banks showed a remarkable expansion in comparison with the preceding year, and their loans to the private sector showed an actual increase well above the growth of production of goods and services in the economy. In 1971, in the commercial banking sector, it was developed an inter-bank reserve market, by means of checks of the Banco do Brasil and collateral of Treasury Bills. This mechanism attenuated the effects of a long standing law that forbade loans and deposits between commercial banks, thus increasing the efficiency of the system regarding the utilization of overall reserves.

Consequently, during 1971, the banks operated with a relatively low cash/deposits ratio and, at the same time, kept a position of smaller indebtedness with the Central Bank in relation to the funds to regain liquidity,

Finally, one must consider the impact of the Treasury operations on the means of payment. The Treasury cash deficit was partially financed by the public (banks, corporations and taxpayers) through a net subscription of public bonds (ORTN and Treasury Bills) which permitted the financing, by monetary authorities, of a variety of other active operations with non-inflationary means.

On the other hand, although no direct relationship could be established, it is worth noticing that the expansionist pressure of exchange operations was compensated by the capture of funds through the sale of federal bonds, in which the open market played an important role.

3.9 — MONEY MARKET

3.9.1 — MONEY AND CREDIT

3.9.1.1 — Means of payment — 1962-1971

SPECIFICATION	VALUE ON DEC. 31 (Cr\$ 1 000 000)			
	1962	1965	1968	1971
A. Banknotes held by the public.....	397	1 730	4 080	8 555
B. Banknotes issued.....	509	2 173	4 970	9 498
C. Banknotes held by the banking system.....	112	443	890	943
D. Accounting money.....	1 302	7 374	17 302	38 605
E. TOTAL (A+D).....	1 699	9 104	21 382	47 160

SOURCE — Banco Central do Brasil.

3.9.1.2 — Currency issues — 1962-1971

YEARS	PAPER MONEY (Cr\$ 1 000 000)			YEARS	PAPER MONEY (Cr\$ 1 000 000)		
	Issued	Cash assets of monetary authorities	In circulation		Issued	Cash assets of monetary authorities	In circulation
1962.....	509	31	478	1968.....	5 100	130	4 970
1965.....	2 175	101	2 074	1971.....	9 750	252	9 498

SOURCE — Banco Central do Brasil.

3.9.1.3 — Gold stock — 1962-1971

YEARS	STOCK (kg)					
	At beginning of year	Purchases			Sales abroad	At end of year
		Total	From domestic mines	Abroad		
1962.....	253 200	3 488	674	2 814	11 904	244 784
1965.....	81 001	5 029	595	4 434	30 235	55 795
1968.....	40 154	333	—	333	333	40 154
1971.....	40 154	—	—	—	—	40 154

SOURCE — Banco Central do Brasil.

THE STOCK MARKET

The Brazilian stock market continued to show an excellent rhythm of development in 1971. The total time deposits and exchange acceptances of the Investment Banks had an increase of 73%. By the end of the year, the value of exchange acceptances of investment companies was 55% above the total reached in December of the preceding year, and during the same period, the deposits with monetary correction (according to the cost of living index) in commercial banks increased by 132%. The transactions in Treasury Bills totalled almost Cr\$5 billion in the year. The capital growth of corporations through cash subscriptions amounted to Cr\$14 billion (Cr\$5.6 billion in 1970) with an expansion of around 151%. The value of transactions in the Rio and São Paulo Stock Exchanges was about 5.5 times higher than the total negotiated in the preceding year (Cr\$25,550 million in 1971 against Cr\$4,552 million in 1970). The Time of Service Guarantee Fund (FGTS) provided the Housing Bank (BNH) with Cr\$1,990 million of liquid funds, an increase of 31% over 1970 (Cr\$1,514 million). In December, 1971, the savings deposits in the Savings Banks, Real Estate Credit Institutions, and Savings and Loans Associations (Cr\$3,784 million) had an overall increase of 80% in comparison with the preceding year's position and the liquid sales of real estate bills (to the public and to BNH) increased, in 1971, by Cr\$1,045 million or, approximately, 32% over the total registered in 1970.

During 1971, the stock market behaved according to two different tendencies. One, ascending, which lasted till practically the end of the first Semester, accelerating in April, May and June; and another, declining, during most of the second Semester, recovering slightly in December. The SN average rose 42,127 points, at the end of 1970, to the peak of 113,537 points on June 14. with an increase of 170% in the period. From that day on the trend was reversed and the SN average, after successive falls reached 77,202 points in the last day of the year, thus bringing to 32% the decline verified in this phase. Taking the years as a whole, the mean variation was 83%, in contrast with 90% in 1970. In the first Semester, the demand was greater than the supply and large imbalance occurred in May and June. This phase was characterized by a demand directed to the securities whose real value was well below the prices the investors were ready to pay, and by a great flow of small unexperienced investors whom, in many cases, sold real estate, automobiles and other personal assets and even went into debt in the hope of easy money. In the second Semester, the trend was reversed due to, among other factors, the restrictions imposed by monetary authorities on the transactions in the time market and the issue of new shares, to an extent that exceeded the market's absorption capacity. It should be said that the total registration of shares for public offer, in the Central Bank, almost totalled Cr\$1.9 billion in December, 1971, against Cr\$322 million in June of the same year. The number of registrations granted jumped from 59 in June to 254 in December, 1971.

The development of the secondary market benefited many companies in the primary market. However, speculations in the Stock Exchange devoid of technical qualities provoked distortions that brought both markets out of balance.

An important event in this sector was the establishment of the Stock Market Development Fund(FUMCAP) with the approval of the Monetary Council in November 1971 and ruled by Resolution no. 213, dated 2-2-72. The Fund aims at providing resources to the Investment Banks for the financing of stock guarantee operations, and also partly for operations in the Stock Exchange, so as to give more liquidity to newly issued securities. Initially, resources around Cr\$400 million will be available to the Fund.

From January to December, 1971, issues of corporate stock totalled Cr\$32 billion (Cr\$29 billion of capital growth of 11,000 corporations and Cr\$3 billion issued by 708 new corporations). Due to a series of incentives in the financial and the stock exchange sectors, the cash subscriptions of Cr\$14 billion, in the year, took over again the leadership with 43% of the total issues. In 1970, the share of cash subscriptions was of only 25.6% in a total of Cr\$21.9 billion of capital issues; re-evaluations of assets and incorporations of reserves were the main items.

The two major operations in investment banking — fixed term deposits and exchange acceptances — reached Cr\$8,177 million by December 1971, showing an increase of 73% as compared to the same month of the previous year. Exchange acceptances had an increase of 50%, reaching Cr\$2,855 million, and the deposits with monetary correction clause increased by 90% and totalled Cr\$5,322 million. In 1970, these deposits increased 156% and the exchange acceptances only 11%.

By the end of 1971, the total exchange acceptances of the financial companies added up to more than Cr\$12 billion or, approximately, 55% over the December, 1970 total. Nearly the totality of that financing was directed to the consumer. On the other hand, the loan operations in investment banks were predominantly aimed at the working capital. No modifications were introduced, during 1971, in the interest rates of the financial companies: 3.69% per month for the borrower and 2.4% per month for the taker of exchange

bills. The total number of financial companies decreased, from 212 to 185, and through mergers, were transformed into seven new investment banks.

Fixed term deposits with monetary correction clause in commercial banks showed an increase of 132% in 1971, totalling Cr\$3,148 million by the end of December. In 1970, the increase was about 79%. Deposits at terms shorter than twelve months grew 139% and those at longer terms about 123%, with a reversal in the previous year trend, in spite of the commercial banks' efforts to have the average terms of those deposits enlarged. As to the deposits certificates issued by these banks, they added up to Cr\$136 million in December 1971, experiencing an increase of 189% compared with December 1970, basically originating from commercial banks. Interest rates paid by commercial banks to their time depositors were kept within the range of 2% to 2.2% monthly.

The Treasury Bills (LTN) were definitely established in 1971. The volume of transactions over-the-counter — with the exception of banking reserve operations — reached the expressive amount of Cr\$4,972 million in the year, with a monthly average almost six times bigger than the one registered in the last Quarter of 1970, when the market was opened. The interest rates of the LTN were up during the year, specially from August on.

On the other hand, the operations with the Treasury Purchasing Power Clause Bonds(ORTN) decreased from a total negotiated of Cr\$1,692 million in 1970 to Cr\$1,427 million in 1971. The ORTNs were gradually replaced by the LTNs in the over-the-counter market and were more and more restricted to the compulsory deposits of commercial banks in the Central Bank, and to purchases intended for competitive bids, public contracts and legal businesses.

Liquid resources in the Housing Financial System had an increase provided by the FGTS to the BNH and jumped from Cr\$1,514 million in 1970 to Cr\$1,990 million in 1971. Keeping the same trend of previous years, compensations progressed more quickly than gross collections. Earlier estimates forecast that the accumulated ratio since April 1967 would reach 50% by the end of 1971 but that was not the case because of the remarkable performance of the Brazilian economy. The ratio changed from 29.3% in December, 1970 to 34.6% by December, 1971. Savings deposits in the Savings Banks grew 81%, against 140% in 1970; in the Real Estate Credit Companies, they had an increase of 99%(101% in 1970); and in the Loans and Savings Associations, of 43%(against 141% in 1970). In December, 1971, these deposits amounted to Cr\$3,276 million, Cr\$293 million, and Cr\$ 215 million, respectively. The performance was quite satisfactory, although less brilliant than in 1970 due, perhaps, to the attractiveness of the Stock Exchange in the year, particularly in the first Semester, slackening the growth of these funds collected from the public. Net sales of Real Estate Bills also developed at a more moderate pace than in 1970(32% against 56%). These Bills, among other factors hampering their placement, suffered from an intensive competition from the savings deposits and the bills of exchange. Only after the establishment of fiscal incentives, by the end of the year, some improvement was registered in the sales.

In short, the Brazilian securities market continued to progress rather successfully during 1971, attending to the numerous investors in their several alternatives for the application of their savings. No substantial juridical changes took place in the year. The absolute record of the Stock Market development, which occurred in the first Semester was, practically, the result of a previously developed and improved structure and the excellent rate of growth of economic activity as a whole, but the decline verified in the second Semester demonstrated that some of the imperfections intrinsic to a relatively narrow market have not yet been eliminated or removed.

3.9.2 — SECURITIES MARKET

3.9.2.1 — Capital issues, by branches of activity — 1962-1971

BRANCHES OF ACTIVITY	VALUE OF ISSUES (Cr\$ 1 000)			
	1962	1965	1968	1971
Banks and insurance.....	24 064	222 574	847 474	3 118 577
Trade.....	51 962	657 421	791 468	2 571 904
Real state.....	—	53 219	57 351	293 597
Mining, manufacturing and construction.....	204 252	3 945 145	6 278 757	16 767 307
Motor vehicles.....	17 674	151 270	350 598	517 662
Cement.....	2 903	68 053	126 034	407 764
Construction.....	9 881	180 538	382 663	1 218 796
Electrotechnics.....	6 870	146 882	289 694	655 952
Food.....	23 104	605 663	698 897	2 065 566
Metallurgy.....	13 047	407 980	428 988	1 015 270
Mining.....	8 509	72 200	208 779	1 011 397
Paper.....	3 505	86 401	101 169	416 933
Petroleum.....	13 897	89 569	645 273	1 393 465
Chemicals and similar.....	10 749	353 921	581 936	1 505 134
Iron and steel.....	40 440	421 477	567 573	2 917 083
Textiles.....	15 987	366 221	326 098	347 777
Other.....	37 686	994 970	1 571 055	3 294 508
Public services and transportation.....	29 818	1 038 292	4 148 234	7 936 007
Other.....	30 554	374 583	775 235	1 414 889
TOTAL.....	340 650	6 291 234	12 898 519	32 102 281

SOURCE — Fundação Getúlio Vargas.

3.9.2 — SECURITIES MARKET

3.9.2.2 — Foreign capital investments by countries of origin and branches of activity — December 31, 1971

SPECIFICATION	FOREIGN CAPITAL (US\$ 1 000)		
	Total	Investments	Reinvestments
TOTAL	2 911 535	1 789 615	1 121 920
Countries of origin			
United States.....	1 096 469	543 951	552 518
Germany, Federal Republic.....	331 418	238 187	93 231
Canada.....	294 241	235 864	58 377
United Kingdom.....	273 089	81 119	191 970
Switzerland.....	191 855	158 471	33 384
France.....	129 941	39 309	90 632
Japan.....	124 871	119 666	5 205
Panama.....	80 084	68 330	11 754
Netherlands Antilles.....	75 173	44 189	30 984
Sweden.....	57 731	32 704	25 027
Belgium.....	53 677	44 977	8 700
Other.....	202 986	182 848	20 138
Branches of activity			
Mining.....	26 123	15 660	10 463
Manufacturing.....	2 383 715	1 398 997	984 718
Non-metallic minerals manufactures.....	61 613	35 531	26 082
Metallurgy.....	213 605	170 133	43 472
Machinery.....	123 699	95 510	28 189
Electric and communications material.....	261 608	163 159	98 449
Transportation material.....	405 539	295 742	109 797
Wood.....	3 965	2 906	1 059
Paper and cardboard.....	67 867	38 333	29 534
Rubber.....	103 686	35 457	68 229
Chemicals.....	624 480	320 862	303 618
Medicinal and pharmaceutical products.....	113 436	79 723	33 713
Perfumery, soaps and candles.....	28 291	8 712	19 579
Plastic products.....	17 813	12 802	5 011
Textiles.....	69 711	33 964	35 747
Wearing apparel, footwear and textile products.....	11 968	7 736	4 232
Food.....	135 443	61 085	74 358
Beverages.....	12 813	7 629	5 184
Tobacco.....	112 140	17 743	94 397
Printing and publishing.....	6 924	4 805	2 119
Miscellaneous manufactures.....	9 114	7 165	1 949
Construction.....	7 786	2 985	4 801
Public utilities.....	157 390	108 963	48 427
Agriculture.....	20 734	19 368	1 366
Services.....	276 292	215 302	60 990
Other.....	39 495	28 340	11 155

SOURCE — Banco Central do Brasil.

NOTE — Foreign currency has been converted into U.S. dollars at the value of December, 1971.



3.9.3 — BANKING AND FINANCE

3.9.3.1 — Number of banking establishments — 1969-71

SPECIFICATION	BANKING ESTABLISHMENTS		
	1969	1970	1971
TOTAL			
Head offices.....	192	172	145
Branches.....	7 656	7 682	7 679
Official Federal Banks			
Banco do Brasil S.A.			
Head offices.....	1	1	1
Branches.....	684	699	730
Banco do Nordeste e da Amazônia			
Head offices.....	2	2	2
Branches.....	116	135	136
Official State Banks			
Head offices.....	25	25	25
Branches.....	1 253	4 307	1 315
Private Banks			
Head offices.....	164	144	117
Branches.....	5 603	5 541	5 498

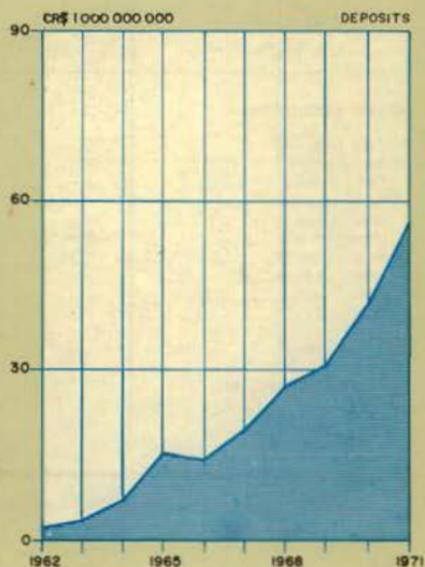
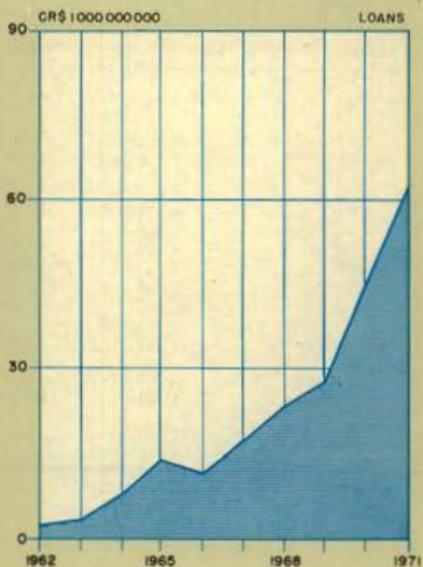
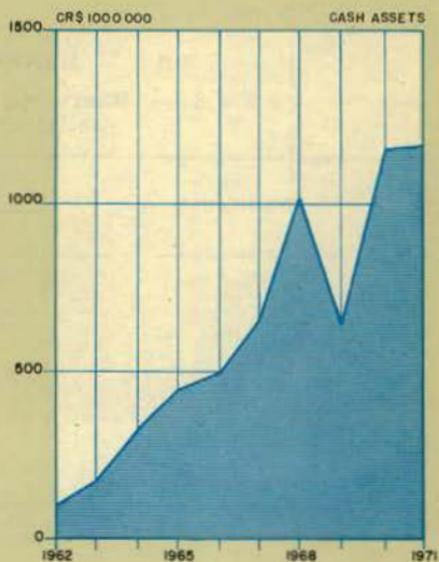
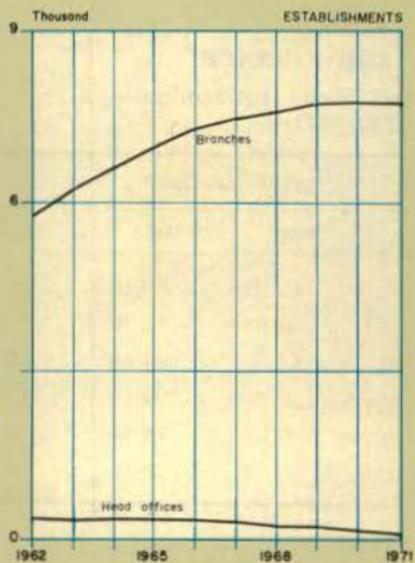
SOURCE — Centro de Informações Econômico-Fiscais.

3.9.3.2 — Loans, cash assets, and deposits — 1962-1971

EARS	BALANCE AT END OF PERIOD (Cr\$ 1 000)			PERCENTAGE OVER DEPOSITS	
	Loans	Cash assets	Deposits	Loans	Cash assets
1962.....	2 214 554	102 102	2 195 303	100,9	4,7
1965.....	14 270 682	443 052	16 091 206	88,7	2,8
1968.....	23 838 167	1 010 199	27 427 296	86,9	3,7
1971.....	62 168 136	1 161 130	56 539 360	109,9	2,1

SOURCE — Centro de Informações Econômico-Fiscais.

BANKING



3.9.3 — BANKING AND FINANCE

3.9.3.3 — Banco do Brasil loans to economic activities — 1962-1971

SPECIFICATION	VALUE (Cr\$ 1 000)			
	1962	1965	1968	1971
Agriculture.....	111 657	475 189	1 824 441	4 245 780
Livestock.....	30 283	64 690	416 211	1 332 249
Industry.....	34 694	159 297	614 007	1 677 937
Cooperatives.....	10 234	34 238	86 871	338 930
Subsidies to agriculture (minimum prices).....	8 109	34 078	220 365	589 181
TOTAL.....	194 977	767 492	3 161 895	8 184 077

SOURCE — Banco do Brasil, Carteira de Crédito Geral e Rural.

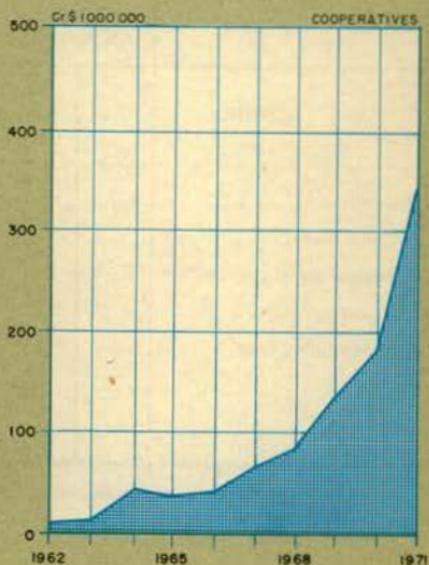
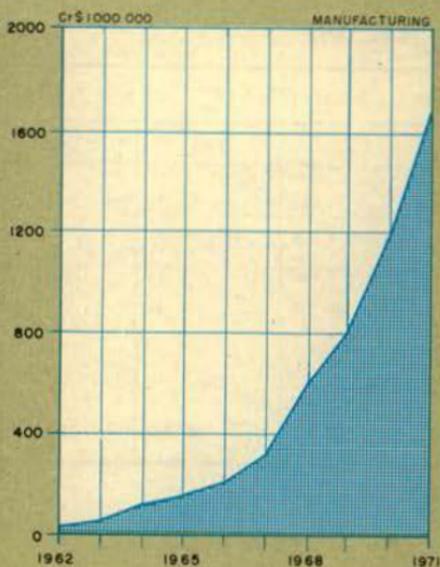
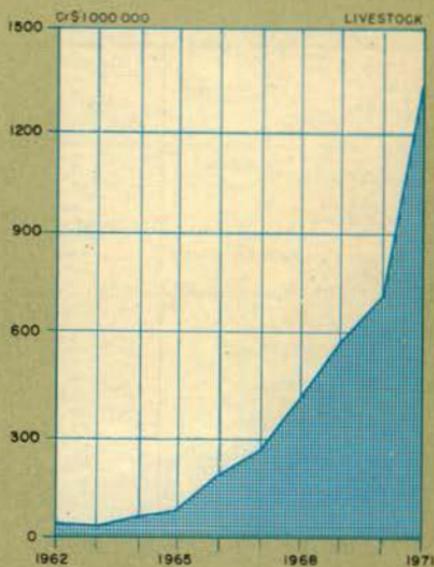
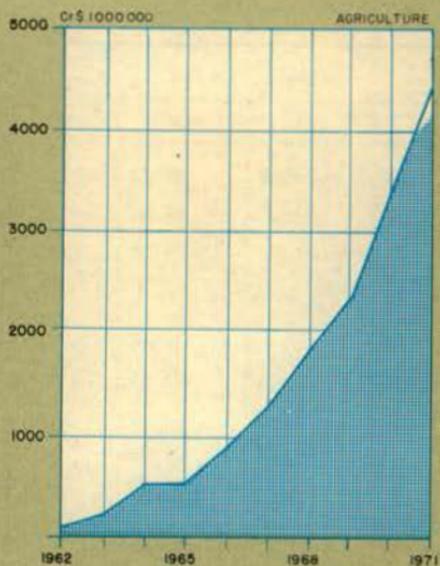
3.9.3.4 — Value of loans to cooperatives by the Banco Nacional de Crédito Cooperativo — 1962-1970

COOPERATIVES	VALUE (Cr\$ 1 000)			
	1962	1965	1968	1970
Farmers cooperatives.....	3 250	27 265	147 856	158 333
Dairy producers.....	1 308	8 777	28 704	36 028
Poultry raisers.....	50	—	10 109	10 286
Cotton growers.....	23	1 100	11 474	12 468
Swine raisers.....	191	1 527	11 830	6 607
Winegrowers.....	120	3 025	8 024	15 547
Vegetables growers.....	2	10	3 322	8 250
Rice producers.....	60	1 494	8 322	11 883
Wheat producers.....	14	468	2 143	7 200
Cattle raisers.....	99	1 073	5 248	6 814
Other.....	1 383	9 791	58 680	43 250
Other activities.....	312	20 295	17 367	8 707
Consumers cooperatives.....	88	3 345	13 366	7 892
Other.....	224	16 950	4 001	815
TOTAL.....	3 562	47 560	165 223	167 040

SOURCE — Banco Nacional de Crédito Cooperativo.

BANKING

Loans made by Banco do Brasil



3.9.3 — BANKING AND FINANCE

3.9.3.5 — Approved cash loans to economic activities, by the Banco Nacional do Desenvolvimento Econômico — 1962-1971

ACTIVITIES	VALUE (Cr\$ 1 000)			
	1962	1965	1968	1971
Public utilities.....	6 097	4 077	409 854	505 408
Electric power.....	6 097	3 927	88 563	94 048
Transports and telecommunications.....	—	150	321 291	403 360
Facilities for installation of industrial centers.....	—	—	—	8 000
Mining and mineral research.....	—	—	18 624	3 451
Manufacturing industries.....	18 993	333 004	462 912	2 119 383
Agriculture and food supply.....	1 106	10 026	45 122	400 516
Education and scientific and technological research.....	—	8 922	31 416	106 494
Other activities.....	—	—	22 461	82 338
TOTAL.....	26 196	356 029	990 389	3 217 590

SOURCE — Banco Nacional do Desenvolvimento Econômico.

NOTE — At current prices.

3.9.3.6 — Guarantees in foreign currency granted by the Banco Nacional do Desenvolvimento Econômico — 1962-1971

ACTIVITIES	VALUE (US\$ 1 000)			
	1962	1965	1968	1971
Public utilities.....	47 141	15 087	82 715	24 736
Electric power.....	3 295	2 394	—	1 056
Transports and telecommunications.....	43 846	12 693	82 715	23 680
Manufacturing industries.....	20 333	40 336	6 759	71 903
Agriculture and food supply.....	61	—	192	590
Other activities.....	—	—	—	1 602
TOTAL.....	67 535	55 423	89 666	98 831

SOURCE — Banco Nacional do Desenvolvimento Econômico.



Residential project in the outskirts of Rio de Janeiro — Guanabara

3.9.3 — BANKING AND FINANCE

3.9.3.7 — Dwelling units financed by the Banco Nacional da Habitação — 1968-71

SPECIFICATION	FINANCED DWELLING UNITS	VALUE (Cr\$ 1 000)		
		Loans from the Banco Nacional da Habitação	Total loans granted by BNH financial system	Total investment
Contracts				
Until 1968.....	322 752	4 347 865	7 186 758	9 755 458
1969.....	177 298	2 572 803	4 183 949	6 131 613
1970.....	127 037	2 097 417	3 140 030	5 006 700
1971.....	100 782	2 041 562	2 642 255	4 312 113
Until 1971.....	727 869	11 059 647	17 132 992	25 205 884
Agreements (contract balances).....	44 389	609 544	700 582	848 498
GRAND TOTAL.....	772 258	11 669 191	17 833 574	26 054 382

SOURCE — Banco Nacional da Habitação.

NOTES — 1. Data derived from contracts and agreements and values are adjusted for prices of Dec. 1971 (UPC = Cr\$ 58,61).

2. Total financing granted by the Bank's financial system includes, besides direct loans from the Bank, such amounts as financed by the Bank's agents with their own resources. It also includes preliminary savings amounts required from beneficiaries and corresponding to the total value of the dwellings financed.



Popular dwellings — Pernambuco

3.9.3 — BANKING AND FINANCE

3.9.3.8 — Check clearing — 1962-1971

STATES	NUMBER (1 000)				VALUE (Cr\$ 1 000 000)			
	1962	1965	1968	1971	1962	1965	1968	1971
São Paulo.....	34 312	68 171	108 356	176 761	6 171	37 668	138 913	399 523
Guanabara.....	15 976	27 927	36 564	65 272	3 165	21 475	71 397	288 565
Minas Gerais.....	4 968	11 909	20 246	29 002	543	4 779	20 666	49 022
Rio Grande do Sul.....	2 170	5 747	10 102	19 441	429	3 318	12 875	39 469
Paraná.....	2 833	8 192	15 529	26 558	423	3 432	12 004	33 757
Pernambuco.....	2 383	3 531	5 969	8 876	363	2 195	8 323	18 840
Bahia.....	1 179	3 255	6 328	9 829	223	2 043	8 359	17 058
Other.....	14 644	11 788	26 920	44 321	1 163	5 522	26 126	57 436
TOTAL.....	78 485	140 520	230 014	380 060	12 480	80 432	298 663	903 670

SOURCE — Banco do Brasil.

BALANCE OF PAYMENTS AND EXCHANGE

In 1971, the exchange rate was modified seven times, with an yearly accumulated readjustment of 13.8% vis-a-vis the US dollar. This percentage was identical with the one that occurred in 1970, when nine adjustments were made. It should be noted that general price index (domestic availability) increased by 19.8% in 1971.

Since 1968, the Brazilian Government has been adopting a flexible exchange rate that takes into account not only the increases in the domestic prices, but also the current prices in the United States and other countries with significant trade relations with Brazil. The devaluation of the cruzeiro at a rate below the percentage growth of domestic prices is explained by the inflationary process that is going on in those countries.

This policy of small exchange variations — the periodic readjustments, in 1971, ranged from a minimum of 1.6% and a maximum of 2.4% — is showing the expected results. Besides stimulating foreign exchange earnings (exports plus the inflow or permanence of foreign capital) it has not hit the imports.

In 1971, exports continued to grow, surpassing the preceding year's record (US\$ 2.9 billion against US\$2.7 billion in 1970). However, this 6% increase fell short of expectations, for the estimated expansion was around 10% for the year. The difference was specially attributed to the considerable reduction of coffee prices in the international market. Despite the increase in the volume of exports, 7.4% bigger than the preceding year's, the total exchange earnings of that commodity suffered a reduction of 18% (approximately US\$167 million). The exports of manufactures, on the other hand, showed a favorable growth, amounting to US\$822 million, a 24% increase over 1970.

Imports(FOB), in turn, showed a steep increase. They reached US\$3.3 billion in 1971, at a level about 30% higher than in the preceding year. This increase met the growing needs of a developing economy at a fast pace, and particularly the expansion of the manufacturing industry.

It is a rare occurrence in Brazil the fact that imports (FOB) surpassed exports(FOB). During the last 24 years this happened only in 1952, 1960, 1962, and now(1971), when the difference was around US\$346 million. Historically, the trade balance has been positive.

As to the heading **service**, it structurally shows a deficit in Brazil. Its major items (accounting for approximately 85% of the services deficit) are transportation, interest and dividend expenditures, and, of late, the international travel expenses. In 1970, the deficit was US\$978 million. It should be mentioned that this net result involved only a little more than one third of the year's exports. The net payment for international travel was US\$ 135 million; for transportation, US\$270 million; and the interest and dividend remittances amounted to a net total of US\$ 420 million.

The results of the balance of trade plus services and transfer — the last of little significance in Brazil — add up to **current transactions** which showed a deficit of US\$1,312 million, US\$750 million more than in 1970.

Historically, the balance of **current transactions** in Brazil is negative. Since 1947, it has been positive only in six years. It is noteworthy that **current transactions** deficit is a common fact in developing countries, and thus the Brazilian case is not a unique event. But, considering that this deficit is covered by foreign investments or loans, it really means an increase in the country's foreign debt.

Thanks to the good performance of Brazilian development, and the international confidence in its maintenance, Brazil has attracted a growing volume of foreign resources, mainly in the form of loans and financing. In 1971, the net inflow of capitals in the country was around US\$1,832 million against US\$1,015 million in 1970. Loans and financing in 1970 and 1971 amounted to US\$1.433 million and US\$2,501 million, respectively.

The total of **capital and current transactions** items plus the **errors and omissions** item show that the Balance of Payments had, in 1971, a surplus slightly over the one of 1970 — US\$555 million against US\$545 million.

Thus, Brazil managed to overcome the **current transactions** deficit and serviced former loans through loans and financing. Those of medium and long term amounted to US\$2,034 million and those of short term to US\$467 million. It is understandable that the predominance of longer terms within the financing structure is fundamental from the viewpoint of economic growth. On the other hand, it should be seen how foreign debt progresses and how far is the country's capacity of paying going.

The evolution of Brazilian foreign debt accelerated from 1968 on. During 1968-71, it grew by 69%, reaching a total of US\$6,622 million at the end of 1971. On the other hand, the export earnings had a 54% increase in the period, and the international reserves also stepped up. In fact, the latter represented rights on other countries. In 1971, these reserves amounted to seven times as much as in 1968 (US\$1,723 million against US\$257 million). In December, 1971, the net debt (foreign debt less reserves) was US\$4,899 million, and its evolution in the past four years was 34%, a rate below the growth of export earnings. Thus, there was a relative reduction of commitments in that period.

Finally, it should be stressed the substantial improvement of the international liquidity ratio of Brazil (reserves/imports — CIF). By the end of 1971, it reached 47%; in the preceding year it was 42%, and in 1968 and 1969 was 12% and 29%, respectively. Undoubtedly, this was a very expressive progress. According to International Monetary Fund data, only a few nations were able to surpass this ratio, and the world average at the end of 1971 was 37%.

3.9.4 — BALANCE OF PAYMENTS — 1962-1971

SPECIFICATION	VALUE (US\$ 1 000 000)			
	1962	1965	1968	1971 (1)
A. Current transaction (net) (B+C).....	423	368	508	1 307
B. Goods.....	461	293	530	1 321
Trade.....	90	655	26	363
Exports (FOB).....	1 214	1 596	1 881	2 882
Imports (FOB).....	1 304	941	1 855	3 245
Services (net).....	371	362	556	958
C. Grants (net).....	38	75	22	14
D. Net capital flow.....	245	6	541	1 846
E. Errors and omissions.....	140	31	1	9
Surplus or deficit.....	318	331	32	530
F. Deferred payments and commercial credits.....	163	182	—	...
G. Compensatory official financing.....	155	149	32	...

Source — Banco Central do Brasil.

(1) Preliminary data.

3.10 — CONSUMPTION

3.10.1 — APPARENT CONSUMPTION OF COAL — 1962-1971

SPECIFICATION	APPARENT CONSUMPTION (Metric tons)			
	1962	1965	1968	1971
TOTAL	2 671 458	2 885 886	3 970 482	4 093 383
By type				
Steam.....	...	1 115 250	1 532 714	1 584 170
Metallurgical.....	...	1 770 636	2 437 768	2 509 213
By use				
Railways.....	201 293	102 406	40 344	33 035
Industries and other purposes.....	24 101	12 982	11 438	10 106
Thermoelectric power.....	797 079	1 000 410	1 499 992	1 542 847
Shipping.....	10 031	9 350	—	—
Iron and steel industry.....	1 254 292	1 407 857	2 077 619	2 305 620
Gas production.....	384 662	352 879	341 089	201 775

SOURCE — Conselho Nacional do Petróleo — Serviço de Combustíveis Sólidos.

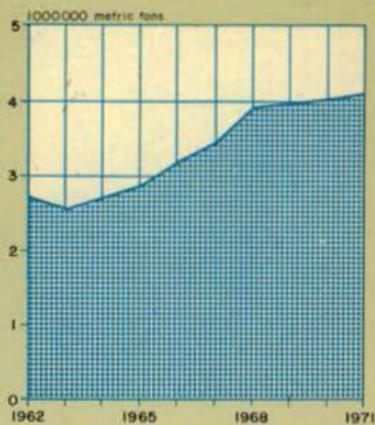
3.10.2 — APPARENT CONSUMPTION OF NATIONAL CEMENT — 1962-1971

SPECIFICATION	APPARENT CONSUMPTION (Metric tons)			
	1962	1965	1968	1971
Portland, common.....	4 792 668	5 350 178	6 884 129	8 598 990
Blast furnace..... (1)	207 554	247 826	325 380	808 940
White.....	32 598	31 923	39 943	44 385
Pozzolanic.....	—	—	—	315 756
TOTAL	5 032 820	5 629 927	7 249 452	9 768 071

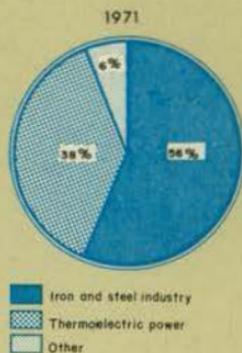
SOURCE — Sindicato Nacional da Indústria do Cimento.

(1) Including 168 metric tons of high resistance cement.

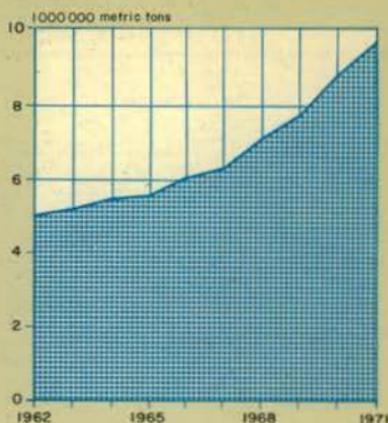
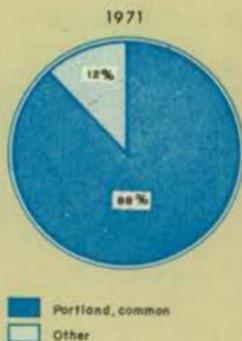
APPARENT CONSUMPTION



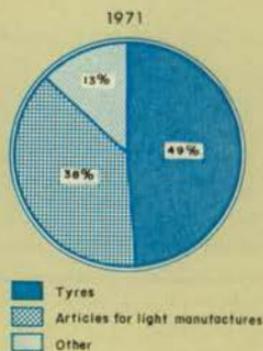
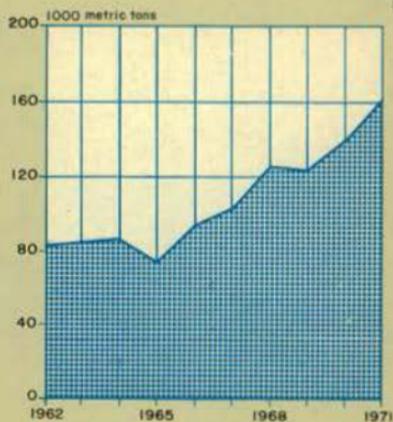
COAL



CEMENT



RUBBER IN INDUSTRY



3.10.3 — APPARENT CONSUMPTION OF ROLLED STEEL — 1962-1971

SPECIFICATION	QUANTITIES (1 000 Metric tons)			
	1962	1965	1968	1971
TOTAL				
Production.....	1 982	2 238	3 788	4 736
Imports.....	276	260	345	869
Exports.....	1	355	304	171
APPARENT CONSUMPTION (P+I-E).....	2 257	2 143	3 829	5 434
ROLLED STEEL (PLATES AND SHEETS)				
Production.....	910	1 119	1 669	2 222
Imports.....	142	124	190	557
Exports.....	0	245	162	69
APPARENT CONSUMPTION (P+I-E).....	1 052	998	1 697	2 710
ROLLED STEEL: OTHER FORMS				
Production.....	1 072	1 119	2 119	2 514
Imports.....	134	136	155	312
Exports.....	1	110	142	102
APPARENT CONSUMPTION (P+I-E).....	1 205	1 145	2 132	2 724

SOURCE — Instituto Brasileiro de Siderurgia.

3.10.4 — APPARENT CONSUMPTION OF PRINCIPAL NON-FERROUS METALS — 1962-1971

SPECIFICATION	APPARENT CONSUMPTION (Metric tons)			
	1962	1965	1968	1971 (1)
Aluminium.....	44 400	54 400	75 988	113 400
Lead.....	24 795	20 077	32 829	41 394
Copper.....	46 299	26 229	53 434	75 790
Tin.....	2 422	2 001	2 303	2 364
Nickel.....	1 632	1 598	2 077	3 073
Zinc.....	54 503	37 914	52 753	70 560

SOURCE — Banco Nacional do Desenvolvimento Econômico.

(1) Preliminary data.

3.10.5 — INDUSTRIAL CONSUMPTION OF RUBBER — 1962-1971

SPECIFICATION	CONSUMPTION (Metric tons, dry weight)			
	1962	1965	1968	1971 (1)
TOTAL.....	82 232	74 165	126 829	162 003
BY PROVENANCE				
Domestic.....	...	58 166	99 756	129 508
Imported.....	...	15 999	27 073	32 495
BY USE				
Tires.....	46 381	41 368	64 856	78 906
Inner tubes.....	3 738	2 840	4 675	6 001
Electricity conductors.....	509	424	519	519
Other manufactures.....	8 870	6 767	10 429	14 443
Manufactures for light industries.....	22 734	22 766	46 350	62 134

SOURCE — Superintendência da Borracha.

(1) Preliminary data.

3.10.6 — CONSUMPTION OF PETROLEUM PRODUCTS — 1962-1971

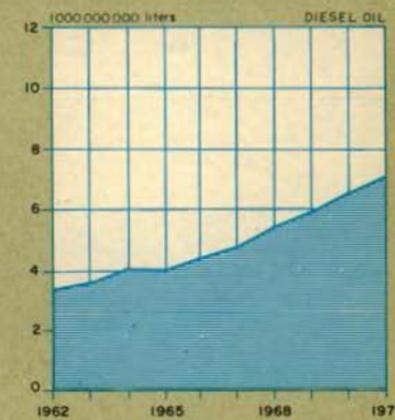
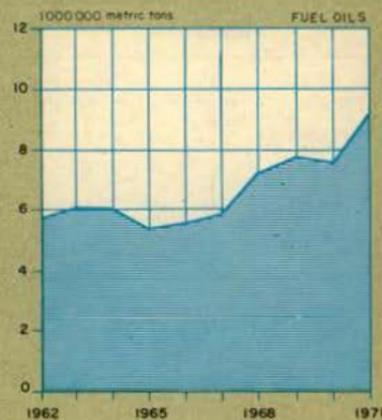
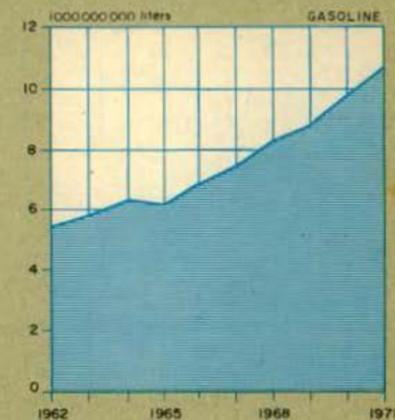
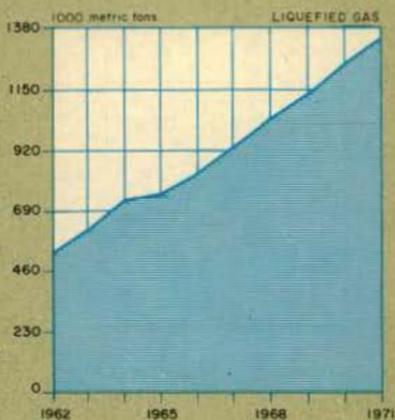
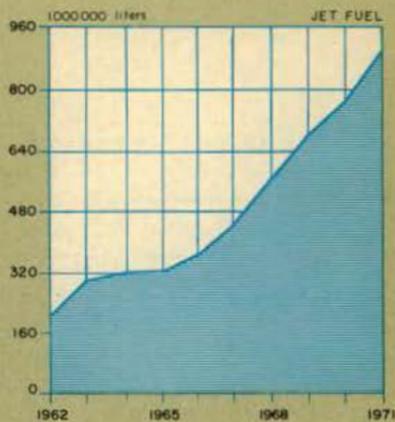
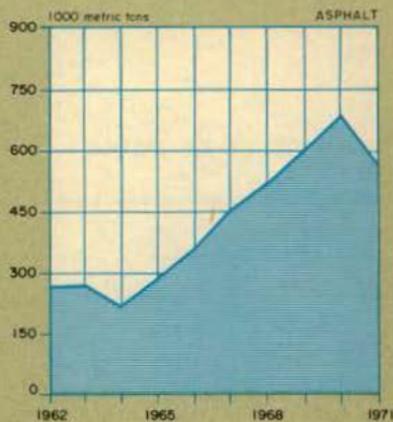
SPECIFICATION	CONSUMPTION (1 000 liters)			
	1962	1965	1968	1971
Gasoline				
Aviation.....	342 615	206 452	159 048	108 979
Automotive "A".....	5 084 447	5 982 496	8 052 289	10 074 529
Automotive "B".....	167 319	58 121	166 737	542 170
Kerosene.....	748 606	577 573	658 882	602 404
Jet fuel.....	216 833	324 280	567 161	902 281
Fuel oils (1).....	5 867 799	5 471 415	7 205 787	9 117 478
Diesel oil.....	3 436 853	4 068 071	5 513 049	7 157 548
Lubricating oils.....	293 368	267 829	393 112	468 218
Asphalt (1).....	271 877	294 674	523 392	572 038
Liquefied gas (1).....	531 521	750 673	1 049 406	1 345 039
Solvents.....	137 473	125 886	158 642	231 877

SOURCE — Conselho Nacional do Petróleo.

(1) Metric tons.

CONSUMPTION

Petroleum - Refined products



3.10.7 — APPARENT CONSUMPTION OF COKE FROM COAL — 1965-1971

YEARS	CONSUMPTION (Metric tons)					
	Total	Consumption of domestic production			Imports	Exports
		Total	Consumed by producing plants	Sales		
ABSOLUTE NUMBERS						
1965.....	1 272 263	1 175 470	1 025 984	149 486	96 793	—
1968.....	1 785 781	1 717 994	1 589 025	128 969	67 787	—
1971.....	2 024 515	1 905 091	1 828 121	76 970	119 430	6
INDEX NUMBERS (1965=100)						
1965.....	100	100	100	100	100	—
1968.....	140	146	155	86	70	—
1971.....	159	162	178	51	123	100

SOURCE — Conselho Nacional do Petróleo — Serviço de Combustíveis Sólidos.

3.10.8 — COFFEE CONSUMPTION — 1962-1971

YEARS	CONSUMPTION	
	Bags (60 kg)	Kg "per capita"
1962.....	6 223 910	5,0
1965.....	8 131 732	5,9
1968.....	8 751 782	5,9
1971(1).....	8 130 504	5,1

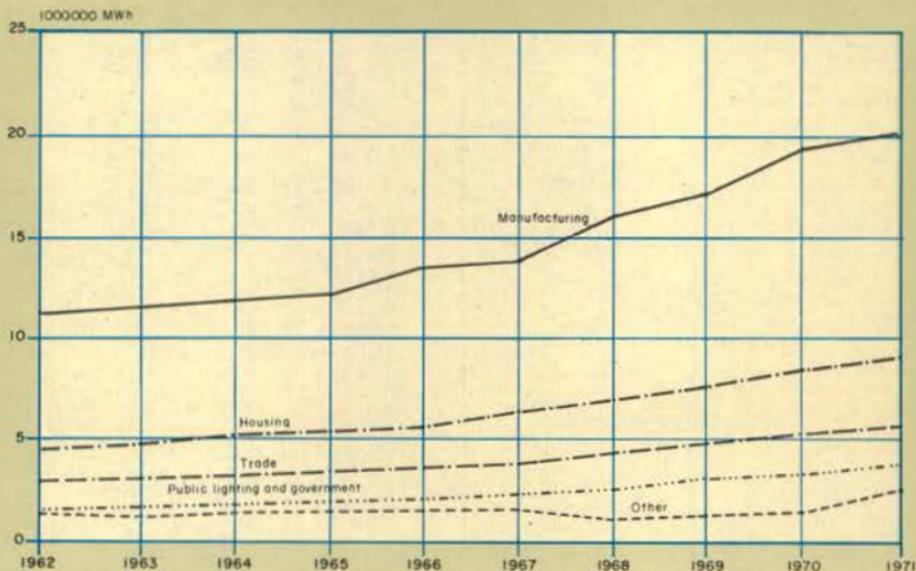
SOURCE — Instituto Brasileiro do Café.

NOTE — Coffee sales to roasting plants and mills.

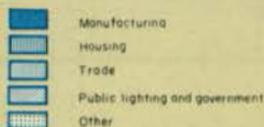
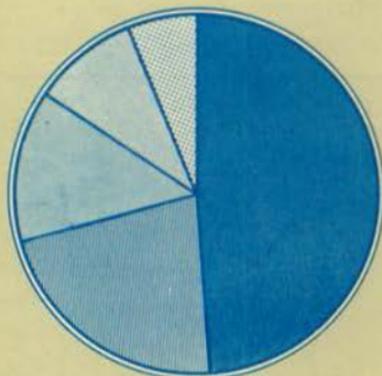
(1) Preliminary data.

CONSUMPTION

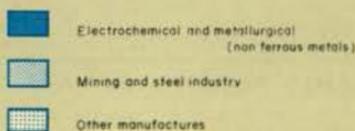
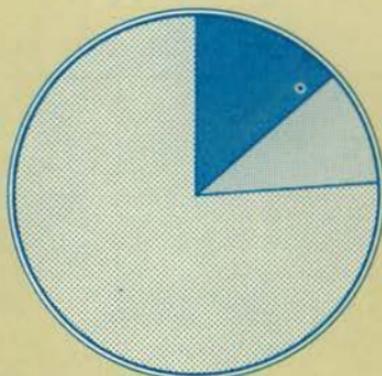
Electric power



TOTAL—1971



MANUFACTURING - 1971



3.10.9 — ELECTRIC POWER CONSUMPTION — 1962-1971

SPECIFICATION	CONSUMPTION (MWh)			
	1962	1965	1968	1971
Industrial.....	11 269 155	12 108 300	16 115 596	22 094 140
Residential.....	4 527 676	5 320 301	7 070 079	9 251 182
Commercial.....	2 943 794	3 372 125	4 324 889	5 696 257
Public use.....	1 656 769	1 930 125	2 654 413	3 816 725
Other.....	1 459 345	1 537 052	1 234 284	1 628 798
TOTAL.....	21 856 739	24 267 903	31 399 261	42 487 102

SOURCE — Departamento Nacional de Águas e Energia Elétrica.

3.11 — NATIONAL ACCOUNTS

3.11.1 — SYSTEM OF NATIONAL ACCOUNTS

3.11.1.1 — Domestic product account — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Net domestic product (at factor costs).....	5 532,7	30 147,1	78 280,9	103 682,7
Product of the primary sector.....	1 283,7	6 708,1	13 873,1	17 770,7
Product of the secondary sector.....	1 367,7	7 359,6	22 299,4	30 551,8
Product of the tertiary sector.....	2 881,3	16 079,4	42 108,4	55 360,2
Indirect taxes.....	828,6	5 537,8	17 762,2	24 088,3
Less: subsidies.....	86,7	687,5	1 108,4	1 244,6
Consumption of fixed capital.....	326,8	1 820,2	4 945,1	6 590,5
Imports of goods and services.....	445,8	2 305,0	7 551,0	10 049,8
Total supply of goods and services.....	7 047,2	39 122,6	107 430,8	143 166,7
Private consumption expenditures.....	4 530,3	24 886,3	71 788,0	(2) 95 606,4
General government consumption expenditures.....	835,3	4 226,3	11 428,4	15 467,8
Gross fixed capital formation.....	1 180,6	5 404,5	16 634,7	21 948,9
a) Government.....	297,8	1 616,7	4 098,0	7 432,2
b) Private.....	882,8	3 787,8	12 535,7	14 516,7
Changes in stocks.....	162,4	1 359,8	712,3	...
Exports of goods and services.....	338,6	3 245,7	6 867,4	10 143,6
Total demand of goods and services.....	7 047,2	39 122,6	107 430,8	143 166,7

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia

(1) Preliminary estimates. (2) Including "change in stocks".

3.11.1 — SYSTEM OF NATIONAL ACCOUNTS
3.11.1.2 — National income account — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Private consumption.....	4 530,3	24 886,3	71 788,0	(2) 95 606,4
Direct taxes.....	345,5	2 491,8	8 722,3	13 108,7
Net income sent abroad.....	62,4	393,5	922,4	1 233,5
Other current government revenues.....	81,2	618,5	2 797,9	3 735,4
Private sector's net savings.....	863,0	5 174,6	7 622,9	13 036,4
Total expenditure.....	5 882,4	32 327,7	86 257,7	119 249,6
Domestic income.....	5 532,7	30 147,1	78 280,9	103 682,7
Urban sector.....	4 249,0	23 439,0	64 407,8	85 912,0
Agricultural sector.....	1 283,7	6 708,1	13 873,1	17 770,7
Transfers.....	349,7	2 180,6	7 976,8	15 566,9
Total income.....	5 882,4	32 327,7	86 257,7	119 249,6

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates. (2) Including "changes in stocks".

3.11.1.3 — Government current account — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Government consumption.....	835,3	4 226,3	11 428,4	15 467,8
Subsidies.....	86,7	687,5	1 108,4	1 244,6
Transfers.....	349,7	2 180,6	7 976,8	15 566,9
Savings.....	16,4	316,7	3 173,0	1 182,3
Total expenditure.....	1 255,3	7 411,1	23 686,6	33 461,6
Indirect taxes.....	828,6	5 537,8	17 762,2	24 088,3
Direct taxes.....	345,5	2 491,8	8 722,3	13 108,7
Other current revenues.....	81,2	618,5	2 797,9	3 735,4
Total income.....	1 255,3	7 411,1	23 686,6	33 461,6

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

3.11.1 — SYSTEM OF NATIONAL ACCOUNTS

3.11.1.4 — Domestic capital formation account — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Gross fixed capital formation.....	1 180,6	5 404,5	16 634,7	21 948,9
Changes in stocks.....	162,4	1 359,8	712,3	...
Total capital formation.....	1 343,0	6 764,3	17 347,0	21 948,9
Private sector's net savings.....	863,0	5 174,6	7 622,9	13 036,4
Consumption of fixed capital.....	326,8	1 820,2	4 945,1	6 590,5
Government savings.....	16,4	316,7	3 173,0	1 187,3
Balance of payments deficit in current account.....	169,6	547,2	1 606,0	1 139,7
Total resources for capital formation.....	1 343,0	6 764,3	17 347,0	21 948,9

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

3.11.1.5 — External transactions account — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Exports of goods and services.....	338,6	3 245,7	6 867,4	10 143,6
Balance of payments surplus on current account.....	169,6	547,2	1 606,0	1 139,7
Current receipts.....	508,2	2 698,5	8 473,4	11 283,3
Imports of goods and services.....	445,8	2 305,0	7 551,0	10 049,8
Net income sent abroad.....	67,4	393,5	922,4	1 233,5
Current disbursements.....	508,2	2 698,5	8 473,4	11 283,3

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

3.11.2 — NATIONAL INCOME AND NATIONAL PRODUCT

3.11.2.1 — Disposable income of the public and private sector — 1962-1969

SPECIFICATION	ESTIMATES (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Net domestic product (at factor costs).....	5 532,7	30 147,1	78 280,9	103 682,7
Less: Net income sent abroad.....	62,4	393,5	922,4	1 233,5
National income. Net National product (at factor costs).....	5 470,3	29 753,6	77 358,5	102 449,2
Plus: Indirect taxes.....	828,6	5 537,8	17 762,2	24 088,3
Less: Subsidies.....	86,7	687,5	1 108,4	1 244,6
Net National product (at market prices).....	6 212,2	34 603,9	94 012,3	125 202,9
Plus: Depreciation.....	326,8	1 820,2	4 945,3	6 590,5
Gross National product.....	6 539,0	36 424,1	98 957,6	131 883,4
Less: Direct and indirect taxes.....	1 174,1	8 029,6	26 484,5	37 197,0
Other government current revenues.....	81,2	618,5	2 797,9	3 735,4
Plus: Transfers and subsidies.....	436,4	2 868,1	9 085,2	16 811,5
Disposable income of the private sector.....	5 720,1	31 881,1	84 356,2	115 233,3
Disposable income of the public sector.....	818,9	4 543,0	14 601,4	16 650,1
Indirect taxes less subsidies.....	741,9	4 850,3	16 653,8	22 843,7
Direct taxes less government transfer payments.....	4,2	311,2	745,5	2 458,2
Other government current revenues.....	81,2	618,5	2 797,9	3 735,4

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

3.11.3 — GROSS NATIONAL EXPENDITURE — 1962-1969

SPECIFICATION	EXPENDITURE (Cr\$ 1 000 000)			
	1962	1965	1968	1969 (1)
Private consumption expenditure.....	4 530,3	24 886,3	71 788,0	(2) 95 606,4
Government consumption expenditure.....	835,3	4 226,3	11 428,4	15 467,8
Government gross fixed capital formation.....	297,8	1 616,7	4 099,0	7 432,2
Private gross fixed capital formation.....	882,8	3 787,8	12 535,7	14 516,7
Changes in stocks.....	162,4	1 359,8	712,3	...
Consumption expenditure and gross capital formation....	6 708,6	35 876,9	100 563,4	133 023,1
Exports of goods and services.....	338,6	3 245,7	867,4	10 143,6
Gross domestic expenditure and imports.....	7 047,2	39 122,6	107 430,8	143 166,7
Less: Imports of goods and services.....	445,8	2 305,0	7 551,0	10 049,8
Gross domestic expenditure.....	6 601,4	36 817,6	99 879,8	133 116,9
Less: Net income sent abroad.....	62,4	393,5	922,4	1 233,5
Gross national expenditure.....	6 539,0	36 424,1	98 957,4	131 883,4

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates. (2) Including changes in stocks.

3.11.4 — GROSS DOMESTIC PRODUCT

3.11.4.1 — Real product index numbers, by branches of activity — 1962-1970

BRANCHES OF ACTIVITY	INDEX NUMBERS (1949=100)			
	1962	1965	1968	1970 (1)
Agriculture.....	177,1	206,3	214,0	239,5
Industry.....	311,8	313,0	415,8	511,8
Services.....	242,1	257,4	313,7	...
Trade.....	215,5	221,6	278,3	329,8
Transport and communication.....	279,2	311,3	389,4	499,8
Other.....	265,0	285,8	334,3	...
Real product.....	238,8	256,4	308,7	368,5

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

3.11.4 — GROSS DOMESTIC PRODUCT

3.11.4.2 — Total and "per capita" value — 1962-1970

YEARS	GROSS DOMESTIC PRODUCT									
	Total value				"Per capita" value				Implicit deflator	
	Cr\$ 1 000 000		Real product indexes		Cr\$		Real product indexes		Percentage of years of reference over 1949 prices	Annual change (Percentage)
	Current prices	1949 prices	1949=100	Annual change (Percentage)	Current prices	1949 prices	1949=100	Annual change (Percentage)		
1962.....	6 601,4	549,0	238,8	5,3	89,0	7,4	163,3	2,1	1 202,4	54,8
1965.....	36 817,6	589,5	256,4	2,7	452,0	7,2	159,8	0,4	6 245,6	55,4
1968.....	99 879,8	709,7	308,7	9,3	1 115,1	7,9	174,9	5,8	14 073,5	27,8
1970 (1)..	174 624,1	847,2	368,5	9,5	1 828,4	8,9	195,8	6,0	20 611,9	19,8

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

NOTES — 1. Real product index numbers are obtained by the aggregation of physical production index numbers by sectors and they are Laspeyres' movable bases and chained index numbers

2. Gross domestic product deflator reflects both changes in private prices and changes in the product composition by sectors.

3. Implicit price indexes of the domestic product result from the division of total current prices by total constant prices

(1) Preliminary estimates.

3.11.5 — EXPENDITURE AT CONSTANT PRICES — 1962-1969

SPECIFICATION	EXPENDITURE (Cr\$ 1 000 000 of 1953)			
	1962	1965	1968	1969 (1)
Private consumption.....	642,5	690,2	842,9	928,6
Government consumption.....	112,9	110,0	132,0	146,1
Gross fixed capital formation.....	121,0	117,4	173,5	187,1
Changes in stocks.....	19,2	32,0	7,9	...
Purchasing power of exports.....	37,0	49,4	52,8	59,2
Less: Imports of goods and services (including net income sent abroad).....	50,7	43,7	68,0	70,1
Gross national real income.....	881,9	955,3	1 141,1	1 250,9

SOURCE — Fundação Getúlio Vargas, Instituto Brasileiro de Economia.

(1) Preliminary estimates.

SOCIAL STATISTICS

4.1 — HOUSING

4.1.1 — CENSUS RESULTS

4.1.1.1 — Housing units and average number of residents per occupied unit, by Major Regions, States and Territories at the census date — 1970

MAJOR REGIONS STATES AND TERRITORIES	HOUSING UNITS							Average number of persons per occupied unit	
	Total	Occupied			Vacant	Closed			
		Total	Location						
			Urban	Suburban					Rural
North									
Rondônia, Territory.....	23 844	21 231	5 064	5 380	10 787	1 782	831	5,35	
Acre.....	39 823	36 617	9 962	631	26 024	2 678	528	5,90	
Amazonas.....	175 691	157 473	63 203	4 062	90 208	14 217	4 001	6,07	
Roraima, Territory.....	7 739	6 543	1 635	1 239	3 669	958	238	6,25	
Pará.....	413 819	364 301	161 121	6 222	196 958	35 484	14 034	5,93	
Amapá, Territory.....	20 944	18 245	5 414	4 253	8 578	1 922	777	6,29	
North-East									
Maranhão.....	637 432	575 359	116 717	16 298	442 344	51 298	10 775	5,21	
Piauí.....	331 009	293 699	78 872	14 799	200 028	32 390	4 920	5,72	
Ceará.....	899 989	759 143	308 667	9 279	441 197	124 774	16 072	5,75	
Rio Grande do Norte.....	334 821	280 074	103 094	31 457	145 523	49 455	5 292	5,54	
Paraíba.....	522 983	440 448	186 418	6 047	247 983	69 074	13 471	5,41	
Pernambuco.....	1 164 196	986 860	536 133	6 519	444 208	157 676	19 660	5,24	
Alagoas.....	359 872	307 315	123 104	285	183 926	43 081	9 476	5,17	
Fernando de Noronha, Territory.....	263	215	215	—	—	45	3	5,76	
Sergipe.....	214 306	177 134	79 245	3 509	94 380	27 599	9 573	5,09	
Bahia.....	1 664 428	1 404 199	535 206	45 181	823 812	195 851	64 378	5,35	
South-East									
Minas Gerais.....	2 480 325	2 136 532	1 051 719	99 956	984 857	298 858	44 935	5,38	
Espírito Santo.....	339 712	285 130	134 404	—	150 726	47 222	7 360	5,61	
Rio de Janeiro.....	1 145 389	947 396	712 679	32 292	202 425	131 277	66 716	5,01	
Guanabara.....	1 129 190	966 938	966 938	—	—	137 385	24 867	4,40	
São Paulo.....	4 325 393	3 712 965	3 023 085	32 481	657 399	472 658	139 770	4,79	
South									
Paraná.....	1 468 498	1 291 999	498 461	1 502	792 036	164 284	12 215	5,37	
Santa Catarina.....	575 931	519 366	233 255	5 315	280 796	41 180	15 375	5,59	
Rio Grande do Sul.....	1 466 247	1 332 090	681 223	77 666	573 201	92 828	41 329	5,01	
Central-West									
Mato Grosso.....	326 899	290 813	116 782	8 639	165 492	34 612	1 374	5,50	
Goiás.....	609 816	546 838	234 373	—	312 465	57 605	5 373	5,38	
Federal District.....	117 406	100 867	96 708	—	4 159	13 994	2 545	5,34	
SUMMARY									
North.....	681 860	604 410	246 399	21 787	336 224	57 041	20 409	5,96	
North-East.....	6 129 309	5 224 446	2 067 671	133 374	3 023 401	751 243	153 620	5,39	
South-East.....	9 420 009	8 048 961	5 888 825	164 729	1 995 407	1 087 400	283 648	4,95	
South.....	3 510 676	3 143 455	1 412 939	84 483	1 646 033	298 302	68 919	5,25	
Central-West.....	1 054 121	938 618	447 863	8 639	482 116	106 211	9 292	5,41	
BRAZIL.....	20 795 975	17 959 890	10 063 697	413 012	7 483 181	2 300 197	535 888	5,19	

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

NOTE — Preliminary data.



Nocturnal sight of Recife carnival — PE

4.1.1 — CENSUS RESULTS

4.1.1.2 — Housing units, by metropolitan areas — 1970

METROPOLITAN AREAS	HOUSING UNITS						
	Total	Occupied				Vacant	Closed
		Total	Urban area	Suburban area	Rural area		
Belém, PA.....	123 447	107 899	99 105	—	8 794	12 156	3 392
Fortaleza, CE.....	192 043	169 833	150 977	—	18 856	19 690	2 520
Recife, PE.....	357 486	314 553	296 649	—	17 904	38 702	4 231
Salvador, BA.....	228 231	199 079	168 625	21 470	8 984	23 461	5 691
Belo Horizonte, MG.....	348 360	304 260	279 657	4 026	20 577	39 024	5 076
Rio de Janeiro, GB.....	1 824 165	1 553 270	1 498 100	7 020	48 150	219 304	51 591
São Paulo, SP.....	1 944 400	1 741 706	1 701 055	—	40 651	178 105	24 589
Curitiba, PR.....	176 630	160 497	136 756	—	23 741	15 277	856
Porto Alegre, RS.....	369 981	336 660	305 338	6 545	24 777	28 219	5 102

SOURCE — Instituto Brasileiro de Estatística, Departamento de Censos.

4.2 — LABOR

4.2.1 — EMPLOYMENT

4.2.1.1 — Number of employees and total monthly earnings paid in the industrial sector, by classes of wages and salaries and branches of activity — 1971

(continues)

BRANCHES OF ACTIVITY	TOTAL	MONTHLY WAGES AND SALARIES (Cr\$)			
		Until 159	160-199	200-399	400-599
EMPLOYEES					
Forest products.....	28 875	7 494	8 336	10 112	1 536
Mining.....	81 703	6 316	16 729	30 394	12 445
Manufacturing.....	2 466 946	286 977	399 670	1 006 269	352 121
Construction.....	653 084	48 253	167 391	292 396	91 877
Electric energy production.....	28 361	889	2 046	6 121	5 661
Other.....	132 517	20 760	40 754	49 109	9 741
TOTAL.....	3 391 486	370 689	634 926	1 396 401	473 381
TOTAL WAGES AND SALARIES PAID (Cr\$)					
Forest products.....	7 423 680	1 022 469	1 497 915	2 674 576	729 306
Mining.....	36 956 273	881 103	3 062 918	8 498 417	5 887 497
Manufacturing.....	1 073 688 879	37 449 023	72 889 654	276 453 435	169 808 525
Construction.....	221 179 187	6 886 738	30 891 224	80 530 136	42 749 207
Electric energy production.....	19 429 639	120 361	356 046	2 440 730	2 774 051
Other.....	41 978 221	2 763 988	7 435 974	12 849 351	4 709 850
TOTAL.....	1 400 655 879	49 123 682	116 133 931	383 446 645	226 656 436

4.2.1 — EMPLOYMENT

4.2.1.1 — Number of employees and total monthly earnings paid in the industrial sector, by classes of wages and salaries and branches of activity — 1971

(conclusion)

BRANCHES OF ACTIVITY	MONTHLY WAGES AND SALARIES (Cr\$)				
	600-799	800-999	1 000-1 599	1 600-2 399	2 400 and over
EMPLOYEES					
Forest products.....	526	209	541	57	64
Mining.....	5 356	3 435	4 742	1 079	1 207
Manufacturing.....	168 071	89 052	92 753	38 510	33 523
Construction.....	24 293	10 939	10 256	3 920	3 759
Electric energy production.....	3 918	2 302	3 418	1 343	663
Other.....	5 365	2 172	2 649	1 055	912
TOTAL.....	207 529	108 109	114 359	45 964	40 128
TOTAL WAGES AND SALARIES PAID (Cr\$)					
Forest products.....	364 386	177 616	634 579	114 164	208 669
Mining.....	3 709 336	3 079 605	5 696 404	2 075 447	4 065 546
Manufacturing.....	115 119 608	78 703 586	114 056 565	74 275 493	134 932 790
Construction.....	16 416 338	9 619 287	12 450 248	7 482 525	14 153 484
Electric energy production.....	2 720 643	2 047 790	4 170 979	2 600 925	2 198 114
Other.....	3 621 624	1 915 140	3 289 840	2 024 620	3 367 834
TOTAL.....	141 951 935	95 543 024	140 298 615	88 573 174	158 926 437

SOURCE — Centro de Documentação e Informática do Ministério do Trabalho e Previdência Social.

4.2.1 — EMPLOYMENT

4.2.1.2 — Number of employees in the industrial sector, by sex and age groups — 1971

AGE GROUPS (In years)	NUMBER OF EMPLOYEES				
	Total	Absolute numbers		Percentage	
		Male	Female	Male	Female
12-15.....	45 720	25 994	19 726	56,85	43,15
16-17.....	139 713	87 421	52 292	62,57	37,43
18-20.....	310 259	213 832	96 427	68,92	31,08
21-24.....	593 524	483 419	110 105	81,45	18,55
25-29.....	621 105	546 240	74 865	87,95	12,05
30-34.....	490 802	445 630	45 172	90,80	9,20
35-39.....	388 449	352 234	36 215	90,68	9,32
40-44.....	304 451	274 149	30 302	90,05	9,95
45-49.....	209 915	192 257	17 658	91,59	8,41
50-54.....	126 491	115 461	11 030	91,28	8,72
55-59.....	76 949	71 061	5 888	92,35	7,65
60-64.....	31 926	30 559	1 367	95,72	4,28
65 years and over.....	14 974	14 463	511	96,59	3,41
Age not reported.....	37 208	32 186	5 022	86,50	13,50
TOTAL.....	3 391 486	2 884 906	506 580	85,06	14,94

SOURCE — Centro de Documentação e Informática do Ministério do Trabalho e Previdência Social.

4.2.1 — EMPLOYMENT

4.2.1.3 — Number of employees and total monthly earnings paid in wholesale and retail trade and services, by wage and salary classes and branches of activity — 1971

(continues)

BRANCHES OF ACTIVITY	TOTAL	MONTHLY WAGES AND SALARIES (Cr₹)			
		Until 159	160 — 199	200 — 399	400 — 599
EMPLOYEES					
Wholesale and retail trade.....	917 566	107 652	218 556	362 137	98 756
Banks and insurance companies.....	282 631	3 239	7 236	82 749	48 562
Waterborne and airborne transportation..	55 861	1 030	3 692	12 071	11 661
Land transportation.....	306 729	18 331	46 058	143 324	69 970
Communications, advertising and radio broadcasting.....	66 071	5 139	6 886	20 355	11 135
Health, education and culture.....	334 834	22 252	53 415	120 817	48 876
Services.....	714 178	53 042	137 879	262 032	100 478
TOTAL.....	2 677 870	210 685	473 822	1 003 485	389 438
TOTAL WAGES AND SALARIES PAID (Cr₹)					
Wholesale and retail trade.....	367 201 349	14 624 805	39 892 835	95 256 000	47 177 931
Banks and insurance companies.....	236 352 489	416 761	1 312 578	24 504 328	23 783 929
Waterborne and airborne transportation..	45 036 919	144 179	670 337	3 674 955	5 861 969
Land transportation.....	114 841 699	2 514 741	8 456 498	39 854 095	33 024 256
Communications, advertising and radio broadcasting.....	48 837 906	673 830	1 248 643	5 904 821	5 379 379
Health, education and culture.....	171 635 068	3 084 216	9 711 686	33 161 561	23 231 225
Services.....	401 553 425	7 160 819	25 203 183	71 235 226	48 484 273
TOTAL.....	1 385 458 855	28 619 351	86 495 760	273 590 986	186 942 962

4.2.1 — EMPLOYMENT

4.2.1.3 — Number of employees and total monthly earnings paid in wholesale and retail trade and services, by wage and salary classes and branches of activity — 1971

(conclusion)

BRANCHES OF ACTIVITY	MONTHLY WAGES AND SALARIES (Cr\$)				
	600-799	800-999	1 000-1 599	1 600-2 399	2 400 and over
EMPLOYEES					
Wholesale and retail trade.....	43 232	24 878	33 311	16 739	12 205
Banks and insurance companies.....	40 787	22 164	42 117	23 573	12 204
Waterborne and airborne transportation..	9 788	5 274	7 081	2 863	2 401
Land transportation.....	14 852	6 014	5 522	1 747	911
Communications, advertising and radio broadcasting	6 642	3 951	5 555	2 862	3 546
Health, education and culture.....	32 251	19 220	25 513	6 717	5 773
Services.....	47 119	28 762	36 633	22 474	25 759
TOTAL.....	194 671	110 263	155 732	76 975	62 799
TOTAL WAGES AND SALARIES PAID (Cr\$)					
Wholesale and retail trade.....	29 307 278	21 908 015	41 312 321	32 198 377	45 523 787
Banks and insurance companies.....	28 156 594	19 684 627	53 500 506	45 136 294	39 856 872
Waterborne and airborne transportation..	6 724 293	4 684 649	8 714 845	5 487 957	9 073 735
Land transportation.....	10 059 068	5 330 211	6 651 725	3 330 596	5 620 509
Communications, advertising and radio broadcasting	4 529 759	3 496 932	6 795 804	5 454 003	15 354 735
Health, education and culture.....	22 084 002	17 078 245	30 258 370	12 905 884	20 119 879
Services.....	32 267 630	25 622 257	45 220 297	43 652 210	102 707 530
TOTAL.....	133 128 624	97 804 936	192 453 868	148 165 321	238 257 047

SOURCE — Centro de Documentação e Informática do Ministério do Trabalho e Previdência Social.

4.2.1 — EMPLOYMENT

4.2.1.4 — Number of employees in wholesale and retail trade and services, by sex and age groups — 1971

AGE GROUPS (in years)	NUMBER OF EMPLOYEES				
	Total	Absolute numbers		Percentage	
		Male	Female	Male	Female
12-15.....	15 441	12 968	2 473	83,98	16,02
16-17.....	65 958	50 730	15 228	76,91	23,09
18-20.....	215 018	138 634	76 384	64,48	39,52
21-24.....	491 128	341 920	149 208	69,62	30,38
25-29.....	524 712	402 043	122 669	76,62	23,38
30-34.....	402 853	324 147	78 706	80,46	19,54
35-39.....	304 848	246 615	58 233	80,90	19,10
40-44.....	232 622	189 013	43 609	81,25	18,75
45-49.....	163 046	134 474	28 572	82,48	17,52
50-54.....	104 415	88 109	16 306	84,38	15,62
55-59.....	70 019	58 287	11 732	83,24	16,76
60-64.....	31 469	27 349	4 120	86,91	13,09
65 years and over.....	14 178	12 801	1 377	90,29	9,71
Age not reported.....	42 163	32 997	9 166	78,26	21,74
TOTAL.....	2 677 870	2 060 087	617 783	76,93	23,07

SOURCE — Centro de Documentação e Informática do Ministério do Trabalho e Previdência Social.

4.2.2 — WAGES AND SALARIES

4.2.2.1 — Minimum wage as established on May, 1st, 1972, by Regions and Sub-regions

REGIONS AND SUB-REGIONS	MINIMUM WAGE (1) (Cr\$)			MINIMUM WAGE DISCOUNTS (2) %				
	Monthly	Daily	Hourly	Food	Housing	Wearing apparel	Cleaning	Trans- porta- tion
1st REGION: Acre.....	206,40	6,88	0,86	50	29	11	9	1
2nd REGION: Amazonas, Rondônia and Roraima.....	206,40	6,88	0,86	43	23	23	5	6
3rd REGION: Pará and Amapá.....	206,40	6,88	0,86	51	24	16	5	4
4th REGION: Maranhão.....	182,40	6,08	0,76	49	29	16	5	1
5th REGION: Piauí.....	182,40	6,08	0,76	53	26	13	6	2
6th REGION: Ceará.....	182,40	6,08	0,76	51	30	11	5	3
7th REGION: Rio Grande do Norte.....	182,40	6,08	0,76	55	27	11	6	1
8th REGION: Paraíba.....	182,40	6,08	0,76	55	27	12	5	1
9th REGION: Pernambuco								
1st Sub-region.....	206,40	6,88	0,86	55	27	8	5	5
2nd Sub-region.....	182,40	6,08	0,76	55	27	8	5	5
10th REGION: Alagoas.....	182,40	6,08	0,76	56	27	10	6	1
11th REGION: Sergipe.....	182,40	6,08	0,76	53	34	8	4	1
12th REGION: Bahia								
1st Sub-region.....	206,40	6,88	0,86	54	30	10	5	1
2nd Sub-region.....	182,40	6,08	0,76	54	30	10	5	1
13th REGION: Minas Gerais.....	268,80	8,96	1,12	54	28	11	6	1
14th REGION: Espírito Santo.....	225,60	7,52	0,94	51	31	12	5	1
15th REGION: Rio de Janeiro.....	268,80	8,96	1,12	55	27	11	6	1
16th REGION: Guanabara.....	268,80	8,96	1,12	50	25	13	6	6
17th REGION: São Paulo.....	268,80	8,96	1,12	43	33	14	6	4
18th REGION: Paraná								
1st Sub-region.....	249,60	8,32	1,04	55	24	14	6	1
2nd Sub-region.....	225,60	7,52	0,94	55	24	14	6	1
19th REGION: Santa Catarina								
1st Sub-region.....	249,60	8,32	1,04	57	24	13	5	1
2nd Sub-region.....	225,60	7,52	0,94	57	24	13	5	1
20th REGION: Rio Grande do Sul.....	249,60	8,32	1,04	44	24	22	7	3
21st REGION: Mato Grosso.....	206,40	6,88	0,86	49	29	15	7	—
22nd REGION: Goiás.....	206,40	6,88	0,86	51	22	21	6	—
23rd REGION: Federal District.....	268,80	8,96	1,12	50	25	13	6	6

SOURCE — Decree no. 70 465 of April 27, 1972.

(1) Minimum wage in currency for adult workers, computed as based on 30 working days or 240 hours of work. (2) Allowable discounts from the established minimum wages for the listed goods and services provided by the employer to employees.

4.3 — PUBLIC HEALTH

4.3.1 — HOSPITAL ORGANIZATION

4.3.1.1 — Number of hospitals, by ownership, kind of service and purpose — 1970

SPECIFICATION	NUMBERS	
	Absolute	Percentage
HOSPITALS	3 830	100,0
By ownership		
Government.....	584	15,2
Federal.....	132	3,4
State.....	323	8,5
Municipal.....	108	2,8
Government subsidized.....	21	0,5
Private.....	3 246	84,8
Profit.....	1 708	44,6
Non-profit or charitable.....	1 538	40,2
By kind of service		
General.....	2 973	77,6
Specialized.....	857	22,4
By purpose		
Adults and children.....	3 683	96,2
Children only.....	147	3,8

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

NOTE — A hospital is understood as an establishment with the main purpose of giving medical care to inmates, having beds and adequate facilities available and at least one intern physician that must be qualified from a medical school.



General clinics hospital — São Paulo

4.3.1 — HOSPITAL ORGANIZATION

4.3.1.2 — Number of specialized hospitals, by specialization — 1970

SPECIALIZATION	HOSPITAL ESTABLISHMENTS
Cancer.....	18
Heart.....	19
Leprosis.....	35
Neurology.....	20
Obstetrics.....	206
Psychiatry.....	256
Tuberculosis.....	105
Traumatology and orthopedies.....	25
Other.....	173
TOTAL	857

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

NOTE — See note to preceding table.

4.3.1 — HOSPITAL ORGANIZATION

4.3.1.3 — Number of hospitals, beds and beds per 1.000 inhabitants, by Major Regions, States and Territories — 1970

MAJOR REGIONS, STATES AND TERRITORIES	NUMBERS			MAJOR REGIONS, STATES AND TERRITORIES	NUMBERS		
	Hospitals	Beds	Beds per 1 000 inhabitants		Hospitals	Beds	Beds per 1 000 inhabitants
North	114	9 944	2,7	South-East	1 741	214 236	5,3
Rondônia, Territory.....	7	504	4,3	Minas Gerais.....	515	47 046	4,0
Acre.....	12	606	2,8	Espírito Santo.....	71	5 392	3,3
Amazonas.....	25	3 107	3,2	Rio de Janeiro.....	230	22 961	4,8
Roraima, Territory.....	4	189	4,7	Guanabara.....	212	41 255	9,6
Pará.....	61	5 234	2,4	São Paulo.....	713	97 582	5,4
Amapá, Territory.....	5	294	2,5	South	1 003	64 027	3,8
North-East	750	53 671	1,9	Paraná.....	438	18 567	2,7
Maranhão.....	38	2 427	0,8	Santa Catarina.....	180	15 184	5,2
Piauí.....	36	2 336	1,3	Rio Grande do Sul.....	385	30 276	4,5
Ceará.....	118	9 142	2,0	Central-West	222	12 495	2,4
Rio Grande do Norte..	66	3 057	1,9	Mato Grosso.....	57	3 810	2,3
Paraíba.....	87	5 814	2,4	Goiás.....	152	7 058	2,4
Pernambuco.....	174	14 828	2,8	Federal District.....	13	1 627	3,0
Alagoas.....	55	3 886	2,4	BRAZIL	3 830	354 373	3,7
Sergipe.....	36	1 861	2,2				
Bahia.....	140	10 220	1,3				

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

NOTE — See note to table 4.3.1.1.

4.3.1 — HOSPITAL ORGANIZATION

4.3.1.4 — Staff and attendants in service as of Dec. 31, 1970

PERSONNEL	NUMBER
Physicians	46 051
Dentists	2 079
Pharmacists	2 262
Nurses (graduated)	6 212
Social assistants	1 326
Nutritionists	1 018
Laboratory technicians	3 192
X-ray operators	2 694
X-ray attendants	2 207
Nurse aids (certified)	21 398
Practical nurses (certified)	5 076
Attendants	55 242
Practical midwives (certified)	2 178
Other attendants	71 311

SOURCE — Divisão Nacional de Epidemiologia e Estatística de Saúde.

NOTE — See note to table 4.3.1.1.

4.3.2 — OFFICIAL PUBLIC HEALTH SERVICES

4.3.2.1 — Number of establishments, by ownership and purpose — 1970

SPECIFICATION	ESTABLISHMENTS	
	Number	Percentage
TOTAL.....	4 157	100,0
By ownership		
Federal.....	498	12,0
State.....	3 214	77,3
Municipal.....	445	10,7
By purpose		
General.....	3 362	80,9
Specialized.....	795	19,1

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

4.3.2.2 — Specialized establishment by kind — 1970

SPECIALIZATIONS	NUMBER	SPECIALIZATIONS	NUMBER
Venereal diseases.....	30	Endemic diseases	
Skin diseases.....	44	Trachoma.....	113
Leprosis.....	84	Frambesia.....	50
Prophylaxis		Plague.....	46
Prenatal.....	431	Malaria.....	128
Infants (under 1 year of age)....	531	Yellow fever.....	48
Preschool and school children (1 to 14 years of age).....	556	Schistosomiasis.....	119
Child welfare.....	360	Ancylostomiasis.....	159
		Other.....	96
		Tuberculosis.....	113
		Neuro-psychiatry.....	8
		Other.....	47

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

4.3.2 — OFFICIAL PUBLIC HEALTH SERVICES

4.3.2.3 — Personnel — 1970

PERSONNEL	NUMBER
Physicians.....	7 463
Dentists.....	2 580
Nurses (graduate).....	823
Sanitation officials.....	1 931
Nurse aids.....	2 446
Guards.....	9 162
Attendants.....	8 910
Other.....	14 925

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

4.3.2.4 — Vaccination and immunization — 1970

SPECIFICATION	VACCINATION AND IMMUNIZATION (Number attended)	
	Infantile sanitation	Pre-school and school sanitation
Whooping cough.....	1 458 679	1 473 148
Small pox.....	1 274 110	3 266 454
Diphtheria.....	1 373 896	1 247 420
Tuberculosis.....	435 603	—
Typhoid fever.....	—	875 721
Poliomyelitis.....	2 691 042	3 351 635
Tetanus.....	1 168 603	2 029 947
Measles.....	110 287	102 654
Other diseases.....	—	341 228

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

4.3.2 — OFFICIAL PUBLIC HEALTH SERVICES

4.3.2.5 — Main activities — 1970

SPECIFICATION	NUMBERS
Prenatal prophylaxis	
Pregnant women registered.....	604 596
Pregnant women sent to maternity wards.....	139 812
Pregnant women with confirmed syphilis.....	11 743
Pregnant women treated against syphilis.....	9 735
Nurses visits.....	84 756
Dental prophylaxis	
Preschool and school children registered.....	799 679
Preschool and school children attended.....	1 113 228
Pregnant women registered.....	106 986
Pregnant women attended.....	165 439
Teeth pulled.....	2 328 275
Fluor treatment applied.....	195 753
Health examinations performed (1)	
Persons attended.....	2 803 750
Prenuptial examinations.....	12 615

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

(1) 1969.

4.3.2.6 — Certified cases of certain communicable diseases — 1970

COMMUNICABLE DISEASES	NUMBER OF CASES
Tuberculosis.....	111 945
Syphilis.....	65 388
Leprosy.....	15 704
Typhoid and paratyphoid fever.....	11 243
Measles.....	109 125
Whooping cough.....	81 014
Diphtheria.....	10 496
Small pox (including milk pox).....	5 752
Poliomyelitis.....	11 545
Disentery.....	636 347
Influenza.....	963 148

SOURCE — Divisão Nacional de Epidemiologia e Estatística da Saúde.

EDUCATION

5.1 — EDUCATION

5.1.1 — ELEMENTARY SCHOOL

5.1.1.1 — School units, by administrative control and location — 1962-1970

YEARS	SCHOOL UNITS				
	Total	Administrative control		Location	
		Public	Private	Urban areas	Rural areas
ABSOLUTE NUMBERS					
1962.....	105 525	96 418	9 107	28 737	76 788
1965.....	124 526	114 856	9 670	33 317	91 209
1968.....	134 909	125 677	9 232	32 308	102 601
1970.....	146 136	136 824	9 312	34 388	111 748
INDEX NUMBERS (1961=100)					
1962.....	106	107	98	106	106
1965.....	125	127	104	123	126
1968.....	135	139	99	119	141
1970.....	147	151	100	127	154

SOURCE — Serviço de Estatística da Educação e Cultura.

5.1.1.2 — Teaching staff, by administrative control and location — 1962-1970

YEARS	TEACHING STAFF					
	Total	Administrative control		Location		Graduated from teachers schools
		Public	Private	Urban areas	Rural areas	
ABSOLUTE NUMBERS						
1962.....	273 059	240 191	32 868	175 307	97 752	144 093
1965.....	351 466	312 200	39 266	233 087	118 379	181 863
1968.....	423 145	379 340	43 805	272 251	150 894	233 882
1970.....	457 406	412 528	44 878	300 118	157 288	264 204
INDEX NUMBERS (1961=100)						
1962.....	111	111	115	113	108	104
1965.....	143	144	138	151	131	131
1968.....	173	175	153	176	167	169
1970.....	187	190	157	194	174	191

SOURCE — Serviço de Estatística da Educação e Cultura.

5.1.1 — ELEMENTARY SCHOOL

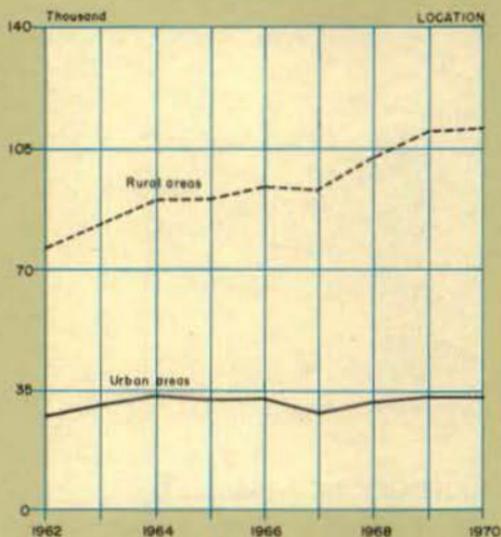
5.1.1.3 — Enrollment at beginning of school year, by administrative control and location — 1962-1970

YEARS	ENROLLMENT AT BEGINNING OF SCHOOL YEAR				
	Total	Administrative control		Location	
		Public	Private	Urban areas	Rural areas
ABSOLUTE NUMBERS					
1962.....	8 535 823	7 541 794	994 029	5 257 390	3 278 433
1965.....	9 923 183	8 827 050	1 096 133	6 203 616	3 719 567
1968.....	11 943 506	10 778 562	1 164 944	7 357 397	4 586 109
1970.....	12 812 029	11 658 052	1 153 977	8 062 420	4 749 609
INDEX NUMBERS (1961=100)					
1962.....	109	109	114	111	107
1965.....	127	127	126	131	122
1968.....	153	156	133	155	150
1970.....	164	168	132	170	155

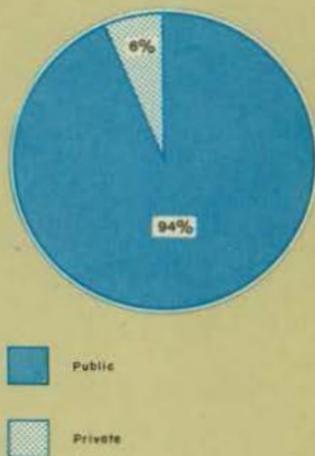
SOURCE — Serviço de Estatística de Educação e Cultura.

ELEMENTARY SCHOOL

SCHOOL UNITS

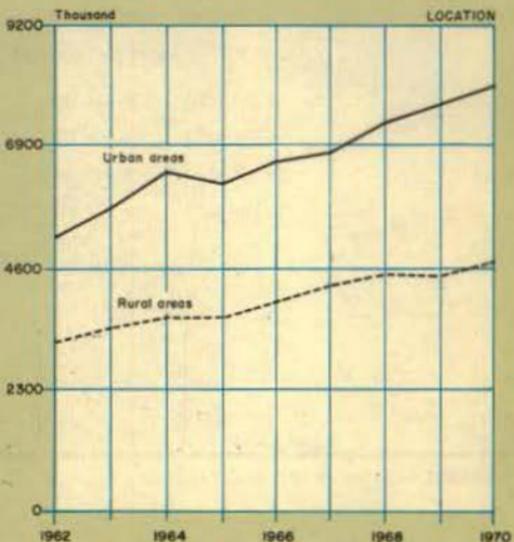
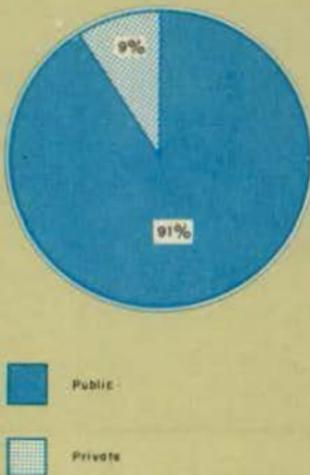


ADMINISTRATIVE CONTROL - 1970



ENROLLMENT AT BEGINNING OF SCHOOL YEAR

ADMINISTRATIVE CONTROL - 1970



5.1.1 — ELEMENTARY SCHOOL

5.1.1.4 — Enrollment at the end of school year, by administrative control and location — 1962-1969

YEARS	ENROLLMENT AT THE END OF SCHOOL YEAR				
	Total	Administrative control		Location	
		Public	Private	Urban areas	Rural areas
ABSOLUTE NUMBERS					
1962.....	7 357 711	6 478 369	879 342	4 559 733	2 797 978
1965.....	9 061 530	8 028 560	1 032 970	5 776 505	3 285 025
1968.....	10 520 427	9 470 998	1 049 429	6 816 649	3 703 778
1969.....	10 954 667	9 911 443	1 043 224	7 091 422	3 863 245
INDEX NUMBERS (1961=100)					
1962.....	110	109	112	111	107
1965.....	135	135	132	141	126
1968.....	157	160	134	166	142
1969.....	163	167	133	173	148

SOURCE — Serviço de Estatística de Educação e Cultura.



ESCOLA TÉCNICA FEDERAL DE MINAS GERAIS

5.1.2 — SECONDARY SCHOOL

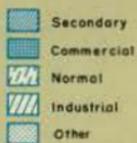
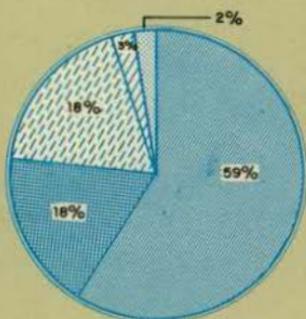
5.1.2.1 — Courses, by cycle and administrative control — 1962-1971

YEARS	COURSES				
	Total	Cycle		Administrative control	
		First	Second	Public	Private
ABSOLUTE NUMBERS					
1962.....	7 639	4 709	2 930	2 427	5 212
1965.....	9 196	5 652	3 544	3 266	5 930
1968.....	12 801	7 368	5 433	5 046	7 755
1971.....	15 641	9 148	6 493	7 011	8 630
INDEX NUMBERS (1961=100)					
1962.....	105	107	101	101	107
1965.....	126	129	122	136	122
1968.....	176	168	187	210	159
1971.....	215	209	223	291	177

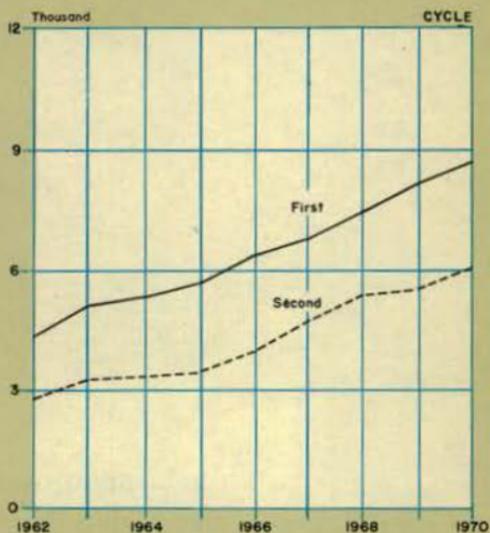
SOURCE — Serviço de Estatística da Educação e Cultura.

SECONDARY SCHOOL

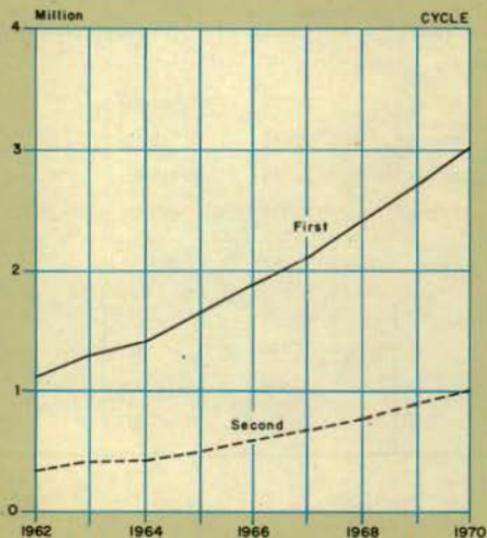
BRANCHES OF EDUCATION-1970



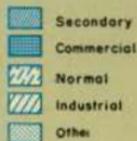
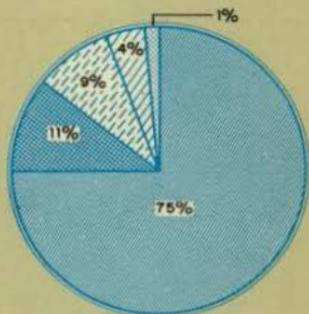
COURSES



ENROLLMENT AT BEGINNING OF SCHOOL YEAR



BRANCHES OF EDUCATION-1970



5.1.2 — SECONDARY SCHOOL

5.1.2.2 — Teaching staff, by cycle and administrative control — 1962-1971

YEARS	TEACHING STAFF				
	Total	Cycle		Administrative control	
		First	Second	Public	Private
ABSOLUTE NUMBERS					
1962.....	105 174	66 795	38 379	40 854	64 320
1965.....	144 943	94 824	50 119	68 066	76 877
1968.....	211 140	132 506	78 634	108 661	102 479
1971.....	336 212	213 076	123 136	202 585	133 627
INDEX NUMBERS (1961=100)					
1962.....	103	105	100	104	102
1965.....	142	148	130	174	122
1968.....	206	207	204	278	162
1971.....	328	333	320	518	211

SOURCE — Serviço de Estatística da Educação e Cultura.

5.1.2 — SECONDARY SCHOOL

5.1.2.3 — Enrollment at beginning of school year, by cycle and administrative control — 1962-1971

YEARS	ENROLLMENT AT BEGINNING OF SCHOOL YEAR				
	Total	Cycle		Administrative control	
		First	Second	Public	Private
ABSOLUTE NUMBERS					
1962.....	1 464 361	1 128 600	335 761	528 160	936 201
1965.....	2 154 430	1 645 320	509 110	1 033 272	1 121 158
1968.....	3 205 689	2 404 614	801 075	1 744 513	1 461 176
1971.....	4 562 126	3 442 705	1 119 421	2 860 200	1 701 926
INDEX NUMBERS (1961=100)					
1962.....	112	112	111	117	109
1965.....	165	163	169	229	131
1968.....	245	239	266	387	171
1971.....	349	342	372	634	199

SOURCE — Serviço de Estatística da Educação e Cultura.

5.1.2.4 — Enrollment at the end of school year, by cycle and administrative control — 1962-1970

YEARS	ENROLLMENT AT THE END OF SCHOOL YEAR				
	Total	Cycle		Administrative control	
		First	Second	Public	Private
ABSOLUTE NUMBERS					
1962.....	1 376 554	1 071 265	305 289	502 113	874 441
1965.....	2 114 305	1 625 266	489 039	1 027 774	1 086 531
1968.....	3 044 907	2 298 809	746 098	1 659 486	1 385 421
1970.....	3 983 458	3 021 036	962 422	2 401 338	1 582 120
INDEX NUMBERS (1961=100)					
1962.....	112	107	133	118	109
1965.....	172	162	213	241	135
1968.....	247	229	325	389	172
1970.....	323	301	419	562	199

SOURCE — Serviço de Estatística da Educação e Cultura.

5.1.3 — HIGHER EDUCATION
5.1.3.1 — Courses, by field of study — 1962-1971

FIELD OF STUDY	COURSES			
	1962	1965	1968	1971
ABSOLUTE NUMBERS				
Philosophy, sciences and letters.....	751	498	783	1 072
Administration and economics.....	89	138	180	254
Engineering.....	94	124	163	215
Law.....	60	62	89	108
Arts.....	109	110	88	100
Medicine.....	31	38	56	68
Nursing.....	40	39	42	43
Dentistry.....	37	40	42	46
Pharmacy.....	22	26	41	40
Social service.....	30	35	36	40
Agriculture.....	15	18	22	25
Architecture and urbanism.....	9	9	13	15
Veterinary.....	8	12	12	14
Other.....	50	75	145 (1)	580
TOTAL.....	1 345	1 224	1 712	2 620
PERCENTAGE				
Philosophy, sciences and letters.....	55,8	40,7	45,7	40,9
Administration and economics.....	6,6	11,3	10,5	9,7
Engineering.....	7,0	10,1	9,5	8,2
Law.....	4,5	5,1	5,2	4,1
Arts.....	8,1	9,0	5,1	3,8
Medicine.....	2,3	3,1	3,3	2,6
Nursing.....	3,0	3,2	2,5	1,6
Dentistry.....	2,8	3,3	2,5	1,8
Pharmacy.....	1,6	2,1	2,4	1,5
Social service.....	2,2	2,8	2,1	1,5
Agriculture.....	1,1	1,5	1,3	1,0
Architecture and urbanism.....	0,7	0,7	0,8	0,6
Veterinary.....	0,6	1,0	0,7	0,5
Other.....	3,7	6,1	8,4 (1)	22,2
TOTAL.....	100,0	100,0	100,0	100,0

SOURCE — Serviço de Estatística da Educação e Cultura.

NOTE — Higher education at undergraduate level.

(1) Including basic course of different fields of study.



5.1.3 — HIGHER EDUCATION

5.1.3.2 — Teaching staff, by field of study — 1962-1971

FIELD OF STUDY	TEACHING STAFF			
	1962	1965	1968	1971
ABSOLUTE NUMBERS				
Philosophy, sciences and letters.....	7 173	7 463	11 002	16 977
Medicine.....	2 164	3 620	4 626	6 604
Engineering.....	5 821	8 096	9 309	5 771
Administration and economics.....	1 818	3 097	4 336	5 159
Law.....	1 556	1 865	2 294	3 221
Dentistry.....	1 199	1 876	2 194	2 036
Arts.....	827	986	1 285	1 372
Agriculture.....	556	784	956	1 084
Nursing.....	1 352	1 020	963	1 048
Pharmacy.....	476	928	1 882	884
Social service.....	623	736	830	726
Architecture and urbanism.....	468	595	654	638
Veterinary.....	295	444	517	489
Other.....	932	1 616	3 858	15 102
TOTAL.....	25 260	33 126	44 706	61 111
PERCENTAGE				
Philosophy, sciences and letters.....	28,4	22,5	24,5	27,8
Medicine.....	8,6	10,9	10,4	10,8
Engineering.....	23,0	24,4	20,8	9,4
Administration and economics.....	7,2	9,4	9,7	8,5
Law.....	6,2	5,6	5,1	5,3
Dentistry.....	4,7	5,7	4,9	3,3
Arts.....	3,3	3,0	2,9	2,3
Agriculture.....	2,2	2,4	2,1	1,8
Nursing.....	5,3	3,1	2,2	1,7
Pharmacy.....	1,9	2,8	4,2	1,4
Social service.....	2,5	2,2	1,9	1,2
Architecture and urbanism.....	1,9	1,8	1,5	1,0
Veterinary.....	1,1	1,3	1,2	0,8
Other.....	3,7	4,9	8,6	24,7
TOTAL.....	100,0	100,0	100,0	100,0

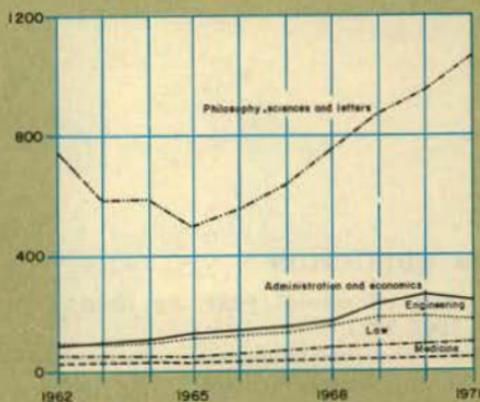
SOURCE — Serviço de Estatística da Educação e Cultura.

NOTE — See note to preceding table.

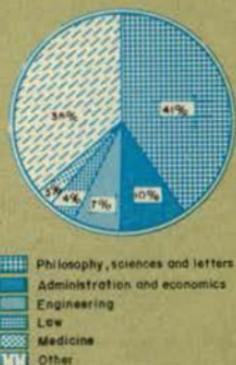
(1) Including basic course of different fields of study.

HIGHER EDUCATION

UNDERGRADUATED COURSES

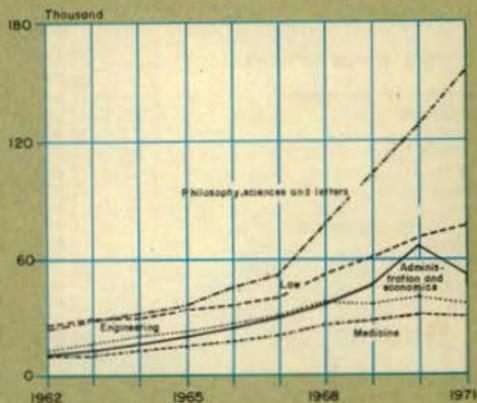
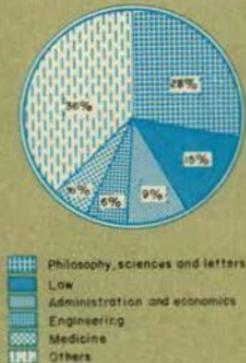


BRANCHES OF EDUCATION - 1971

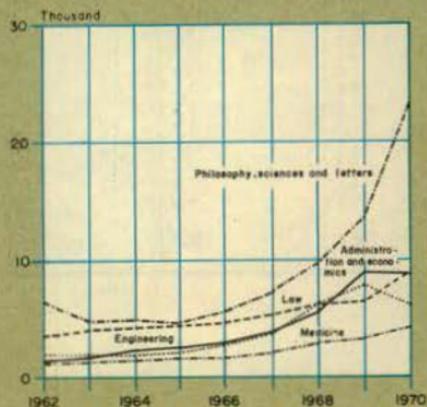


ENROLLMENT AT BEGINNING OF SCHOOL YEAR

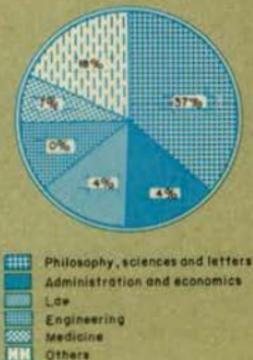
BRANCHES OF EDUCATION - 1971



DEGREES AWARDED



BRANCHES OF EDUCATION - 1971



5.1.3 — HIGHER EDUCATION

5.1.3.3 — Enrollment at beginning of school year, by field of study — 1962-1971

FIELD OF STUDY	ENROLLMENT AT BEGINNING OF SCHOOL YEAR			
	1962	1965	1968	1971
ABSOLUTE NUMBERS				
Philosophy, sciences and letters.....	24 170	36 314	76 799	156 187
Law.....	26 140	33 608	52 856	76 906
Administration and economics.....	11 352	19 751	36 796	52 218
Engineering.....	13 286	21 986	37 552	39 433
Medicine.....	10 838	15 574	25 226	30 990
Dentistry.....	6 552	6 044	7 791	8 571
Agriculture.....	2 614	4 397	5 597	6 482
Social service.....	1 800	3 086	4 248	6 352
Arts.....	2 360	2 056	3 103	4 889
Architecture and urbanism.....	1 903	2 601	3 635	4 591
Pharmacy.....	2 021	2 350	3 736	4 185
Nursing.....	1 358	1 056	1 969	2 882
Veterinary.....	902	1 740	2 512	2 743
Other.....	3 003	5 218	16 475 (1)	164 968
TOTAL.....	107 299	155 781	278 295	561 397
PERCENTAGE				
Philosophy, sciences and letters.....	22,5	23,3	27,6	27,8
Law.....	24,4	21,6	19,0	13,7
Administration and economics.....	10,5	12,7	13,2	9,3
Engineering.....	12,4	14,1	13,5	7,0
Medicine.....	10,1	10,0	9,1	5,5
Dentistry.....	5,2	3,9	2,8	1,5
Agriculture.....	2,4	2,8	2,0	1,2
Social service.....	1,7	2,0	1,5	1,1
Arts.....	2,2	1,3	1,1	0,9
Architecture and urbanism.....	1,8	1,7	1,3	0,8
Pharmacy.....	1,9	1,5	1,4	0,8
Nursing.....	1,3	0,7	0,7	0,5
Veterinary.....	0,8	1,1	0,9	0,5
Other.....	2,8	3,3	5,9 (1)	29,4
TOTAL.....	100,0	100,0	100,0	100,0

SOURCE — Serviço de Estatística da Educação e Cultura.

NOTE — See note to table 5.1.3.1.

(1) Including basic course of different fields of study.

5.1.3 — HIGHER EDUCATION

5.1.3.4 — Degrees awarded, by field of study — 1962-1970

FIELD OF STUDY	DEGREES AWARDED			
	1962	1965	1968	1970
ABSOLUTE NUMBERS				
Philosophy, sciences and letters	6 561	4 792	9 743	23 631
Administration and economics	1 581	2 688	4 759	9 045
Law	3 675	4 488	6 274	8 959
Engineering	2 015	2 313	4 873	7 288
Medicine	1 348	1 755	2 769	4 270
Dentistry	1 317	1 015	1 404	1 806
Agriculture	394	736	1 074	1 200
Pharmacy	432	491	928	1 078
Nursing	417	219	479	851
Arts	461	167	341	782
Social service	268	599	707	780
Veterinary	145	241	434	724
Architecture and urbanism	284	312	485	519
Other	574	977	1 676 (1)	3 116
TOTAL	19 472	20 793	35 946	64 049
PERCENTAGE				
Philosophy, sciences and letters	33,7	23,0	27,1	36,9
Administration and economics	8,1	12,9	13,2	14,1
Law	18,9	21,6	17,5	14,0
Engineering	10,3	11,1	13,6	11,4
Medicine	6,9	8,4	7,7	6,7
Dentistry	6,8	4,9	3,9	2,8
Agriculture	2,0	3,5	3,0	1,9
Pharmacy	2,2	2,4	2,6	1,7
Nursing	2,1	1,1	1,3	1,3
Arts	2,4	0,8	0,9	1,2
Social service	1,4	2,9	2,0	1,2
Veterinary	0,7	1,2	1,2	1,1
Architecture and urbanism	1,5	1,5	1,3	0,8
Other	3,0	4,7	4,7 (1)	4,9
TOTAL	100,0	100,0	100,0	100,0

SOURCE — Serviço de Estatística da Educação e Cultura.

NOTE — See note to table 5.1.3.1.

(1) Including basic course of different fields of study.



**FINANCES AND ORGANIZATION
OF THE GOVERNMENT**

FEDERAL GOVERNMENT FINANCE

In 1971, the National Treasury had its smallest cash deficit, amounting to C\$ 672 million, which favored the inflation control policy. This cash deficit represented, in 1970, 0.4% of the Gross Domestic Product, and decreased to 0.3%.

The federal revenue had an increase of around 40%, which can be attributed to the growth of the GNP, the improvement of the tax collection system and a change in taxpayers' behavior. Of the total collection, approximately 72% represented resources for the direct administration and the rest was allocated, according to constitutional regulations, to specific uses, for they originated from the Participation Fund or single taxes.

It should be mentioned that, in the composition of the revenues, 87% were related to the following taxes: 40% tax on manufactures, 24% income tax, 7.7% import taxes and 16% single taxes — electric energy, minerals, fuels and lubricants.

As to the tax on manufactures, one sees that its participation in the total revenue decreased, when compared with the preceding year (40% in 1971 and 43% in 1970), and that is explained by the fact that the fiscal incentives had been substantially increased, aiming at relieving the pressures on the corporate working capital.

The tax structure showed, in the last four years, a decrease in the incidence of the so-called indirect taxes in total revenue, but they still maintained their lead and accounted for 66% of total revenues. The remaining 34% were direct taxes. The fact shows that there is still a lot of improvement required by the tax structure in terms of increasing the participation of direct taxes in total collection, and thus contributing to a more equitable income distribution.

It is a well known fact that, as a nation reaches a higher degree of economic development, the percentage of direct taxation in the total tax collection grows accordingly. In the United States and Sweden, for example, the average share of income tax is around 67%. In the United Kingdom, the tax system exempts a variety of goods and services from indirect taxes, in such a way that about 80% of the expenses of a typical worker's family are tax free.

From the side of the expenditures, the budget administration showed an increase of 39% as compared to 1970. It should be noted that around 28% of the Federal Government expenditures were related to the transfer of funds from the Participation Fund to the states and municipalities, and the execution of economic and social infra-structure programs.

It is worth mentioning, as a new fact, that a more realistic trend was shown concerning expenditure quotas, as until recently those responsible for the direct and indirect administrations felt compelled to keep idle resources, through the request of means above the real needs. The new criteria avoided the increase in the "restos a pagar" (unsettled accounts) thus allowing the demand, by the Government, of goods and services at more competitive prices.

A closer look at the expenditures shows that the item payments, interests and commissions stands out because, in spite of its small share in total expenditures (3.6%), it had an increase of 215% over the preceding year. This fact was closely tied to the participation of the Central Bank in the liquidity control of the system, through open market operations which, independently from the Treasury Purchasing Power Clause Bonds(ORTN) counts with a growing participation of the short term Treasure Bills.

It should be stressed that the financing of the Federal Government deficit through funds originating in the placement of Treasure Bills, besides the official policy of keeping expenditures at budget level, contributed to minimize the inflationary effects of that deficit.

Among the legal measures related to the taxation system adopted in 1971, the most important refers to the granting of fiscal incentives to the regions included in the SUDENE and SUDAM areas of influence which comprises several economic sectors, chiefly iron and steel industry, tourism, agriculture, scientific research and export of manufactured products. Also worth mentioning are the establishment of the Steel General Fund and the Tourism Fund(managed by Embratur).

In order to stimulate and boost the exports of manufactures, corporations were allowed to deduct(up to 1974) from the liquid profits subject to taxation the portion corresponding to the exports of those domestic products listed by the Ministry of Finance, for which there is an interest to promote the penetration into the international markets.

In 1971, it was maintained for individuals the right to deduct from the gross income the investments in ORTN as well as in state and municipal public bonds; in real estate bills; in stocks of investment companies and of corporations listed in the stock exchanges; and in industrial and agricultural companies considered of interest to the development of Northeast and Amazon Regions; participation shares in joint ownership funds; and subscription of shares of the Banco da Amazonia and of Banco do Nordeste.

Finally, as regards the public debt, the Supplementary Law no. 12, of 8-11-71 regulated the 69th article of the Brazilian Constitution, that legislated over operations of placement and redemption of Treasury bills referring to the payment of domestic loans. Under the new revised text, these operations can be made independently of the estimate of the respective revenues and expenditures in the annual budget, except for interest expenditures, discounting and brokerage resulting from the operations that will be included into the budget. The above mentioned Supplementary Law empowers the Executive with the right to arrange for the redemption, in due time, of Treasury Bills in circulation using funds provided by the sale of new securities to pay for those expenditures, avoiding overburdening the Federal budget.



Copacabana beach after enlargement works — Guanabara

6.1 — TERRITORIAL DIVISION

6.1.1 — ADMINISTRATIVE DIVISION

6.1.1.1 — Number of "Municípios" — 1962-1971

YEARS	NUMBER OF "MUNICÍPIOS" ON DEC. 31
1962.....	3 554
1965.....	3 957
1968.....	3 951
1971.....	3 953

SOURCE — Instituto Brasileiro de Estatística.

6.2 — PUBLIC FINANCES

6.2.1 — FEDERAL FINANCES

6.2.1.1 — Budget accounts — 1962-1971

a) Receipts

YEARS	RECEIPTS (Cr\$ 1 000)		
	Budgetary	Actually collected	Balance
1962.....	439 016	511 828	+ 72 812
1965.....	3 000 100	3 593 921	+ 593 821
1968.....	11 097 643	11 785 506	+ 687 863
1971.....	23 099 700	27 051 574	+ 3 951 874

SOURCE — Inspetoria Geral de Finanças.

b) Expenditure

YEARS	EXPENDITURE (Cr\$ 1 000)		
	Budgetary	Outlays	Balance
1962.....	573 536	726 694	+ 153 158
1965.....	3 774 963	4 414 920	+ 639 957
1968.....	11 837 109	11 542 898	— 294 211
1971.....	23 099 700	26 142 517	+ 3 042 817

SOURCE — Inspetoria Geral de Finanças.

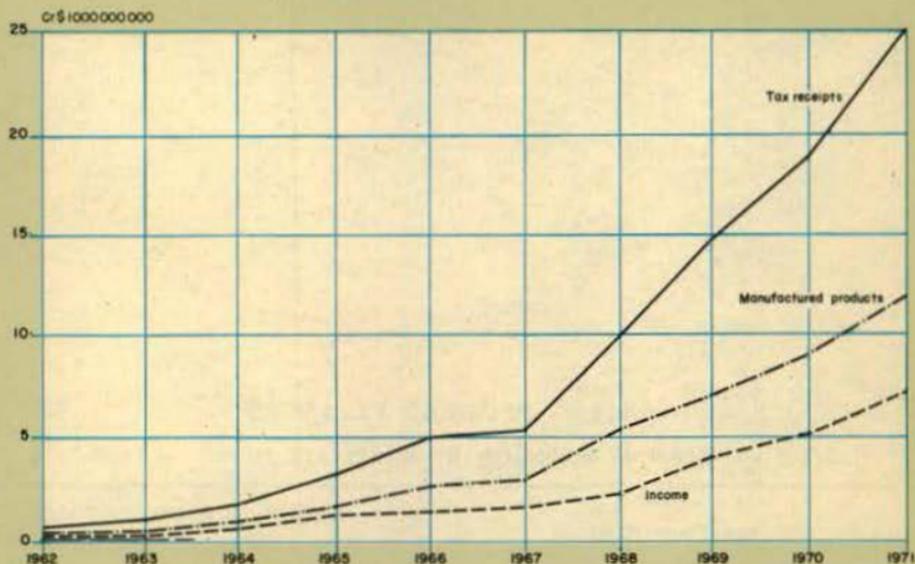
6.2.1.2 — Budget receipts and expenditure — 1962-1971

YEARS	VALUE (Cr\$ 1 000)		SURPLUS OR DEFICIT	
	Receipts	Expenditure	Absolute numbers (Cr\$ 1 000)	Percentage
1962.....	511 829	726 694	— 214 865	— 42,0
1965.....	3 593 921	4 414 920	— 820 999	— 22,8
1968.....	11 785 506	11 542 898	+ 242 608	+ 2,1
1971.....	27 051 574	26 142 517	+ 909 057	+ 3,4

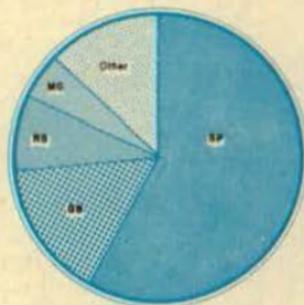
SOURCE — Inspetoria Geral de Finanças.

FEDERAL FINANCES

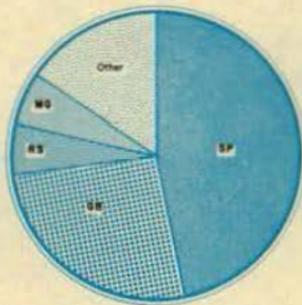
Tax receipts collected



MANUFACTURED PRODUCTS - 1971



INCOME - 1971



6.2.1 — FEDERAL FINANCES

6.2.1.3 — Receipts collected, by budgetary items — 1962-1971

BUDGETARY ITEMS	RECEIPTS COLLECTED (Cr# 1 000)			
	1962	1965	1968	1971
Current receipts	475 214	3 231 425	10 380 217	26 162 688
Tax receipts.....	444 125	3 021 609	9 951 648	24 950 732
Import duties.....	58 405	208 512	815 732	1 805 873
Manufactured products (1).....	204 239	1 307 530	5 075 408	11 412 589
Income.....	115 567	1 022 621	2 173 134	6 503 187
Passenger road carriers.....	—	—	967	122 020
Lubricants and fuels.....	—	—	1 597 257	3 669 873
Stamp and related.....	60 717	347 685	—	—
Electric power.....	2 167	97 137	157 163	603 490
Minerals.....	—	19 182	37 335	112 904
At the Federal Territories.....	83	261	2 934	5 080
Other duties.....	2 947	18 681	91 718	715 716
Property receipts.....	12 288	30 674	21 351	45 967
Industrial receipts.....	6 188	33 401	84 236	12 757
Current transfers.....	—	0	0	717 993
Other receipts.....	12 613	145 741	322 982	435 239
Capital receipts	36 614	362 496	1 405 288	888 886
TOTAL	511 828	3 593 921	11 785 505	27 051 574

SOURCE — Inspeçtoria Geral de Finanças.

(1) Excise duty up to 1966.

6.2.1 — FEDERAL FINANCES

6.2.1.4 — Outlays, by administrative branches — 1962-1971

ADMINISTRATIVE BRANCHES	OUTLAYS (Cr\$ 1 000)			
	1962	1965	1968	1971
Legislative power	4 569	39 822	128 656	200 374
Chamber of Deputies.....	3 108	26 198	85 701	118 424
Federal Senate.....	1 461	13 624	42 955	81 950
Auxiliary bodies	683	5 208	11 756	23 906
Court of Accounts.....	614	4 613	11 756	23 906
National Council of Economics.....	69	595	—	—
Executive power	715 159	4 329 246	11 250 303	25 609 321
Presidency of the Republic.....	33 099	185 148	138 367	124 654
Ministry of Aeronautics.....	32 157	236 528	701 385	1 696 835
Ministry of Agriculture.....	18 051	124 134	254 577	391 658
Ministry of Communications.....	—	—	295 038	369 258
Ministry of Education and Culture.....	49 361	396 425	824 062	1 528 841
Ministry of the Army.....	54 260	460 787	1 249 119	3 195 319
Ministry of the Treasury.....	267 842	1 328 900	3 521 851	631 887
Ministry of Industry and Commerce.....	592	6 917	24 365	35 203
Ministry of the Interior.....	—	—	527 988	723 630
Ministry of Justice.....	8 615	102 569	88 598	159 322
Ministry of the Navy.....	27 927	223 766	623 616	1 605 438
Ministry of Mines and Energy.....	8 876	142 665	301 230	784 523
Ministry of Planning and General Coordination.....	—	—	—	136 890
Ministry of Foreign Affairs.....	4 920	13 386	135 904	228 516
Ministry of Health.....	22 739	117 997	293 118	368 511
Ministry of Labor and Social Security.....	36 059	86 373	139 901	249 590
Ministry of Transportation.....	—	—	2 131 184	3 890 621
Ministry of Roads and Public Works.....	150 661	903 651	—	—
General Responsibilities of the Union.....	—	—	—	4 985 141
Federal grants to State and local Governments.....	—	—	—	4 503 484
Judiciary power	6 283	40 644	152 183	308 915
Federal Supreme Court.....	318	2 101	7 413	14 235
Federal Court of Appeal.....	330	2 650	12 489	49 187
Military Justice.....	452	3 047	11 026	24 340
Electoral Justice.....	2 318	12 816	40 997	84 500
Labor Justice.....	2 629	18 737	64 714	123 426
Justice of the Federal District and Territories.....	236	1 293	9 329	20 483
Federal Justice of 1st Jurisdiction.....	—	—	6 215	12 744
TOTAL	726 694	4 414 920	11 542 898	26 142 516

SOURCE — Inspetoria Geral de Finanças.

6.2.2 — STATE FINANCES
6.2.2.1 — Budget accounts — 1962-1971

a) Receipts

YEARS	RECEIPTS (Cr\$ 1 000)		
	Budgetary	Actually collected	Balance
1962.....	382 916	492 723	+ 109 807
1965.....	3 137 960	3 164 872	+ 26 912
1968.....	10 746 393	10 739 487	— 6 906
1971.....	24 891 790	1) 19 374 275	— 5 517 515

SOURCE — Subsecretaria de Economia e Finanças.

(1) Data subject to revision.

b) Expenditure

YEARS	EXPENDITURE		
	Budgetary	Outlays	Balance
1962.....	422 344	526 814	+ 104 470
1965.....	3 404 112	3 804 635	+ 400 523
1968.....	11 038 907	10 926 862	— 112 045
1971.....	24 894 970	(1) 19 309 488	— 5 585 482

SOURCE — Subsecretaria de Economia e Finanças.

(1) Data subject to revision.



Brasília — DF

6.2.2 — STATE FINANCES

6.2.2.2 — Budget receipts and expenditure — 1962-1971

YEARS	VALUE (Cr\$ 1 000)		SURPLUS OR DEFICIT	
	Receipts	Expenditure	Absolute numbers (Cr\$ 1 000)	Percentage
1962.....	492 723	526 814	— 34 091	— 6,9
1965.....	3 164 872	3 804 635	— 639 763	— 20,2
1968.....	10 739 487	10 926 862	— 187 375	— 1,7
1971 (1).....	19 374 275	19 309 488	+ 64 787	+ 0,3

SOURCE — Subsecretaria de Economia e Finanças.

(1) Data subject to revision.

6.2.2 — STATE FINANCES

6.2.2.3 — Budget — 1972

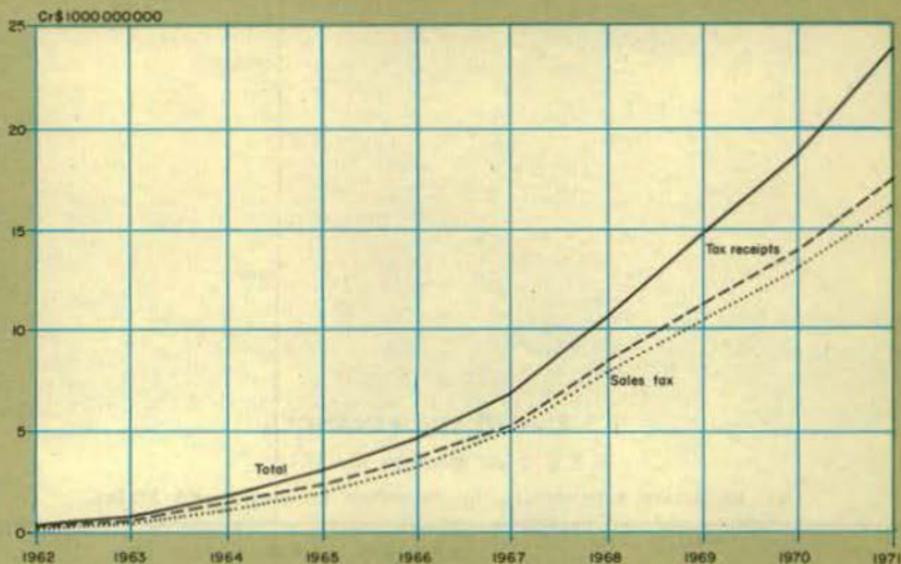
a) Budgetary receipts, by nature and by States

STATES	BUDGETARY RECEIPTS (Cr\$ 1 000)							
	Total	Current receipts						Capital receipts
		Total	Tax	Property	Industrial	Current transfers	Other	
Acre.....	91 119	54 793	10 373	61	76	41 115	3 168	36 326
Amazonas.....	297 991	171 522	133 763	3 450	72	25 469	8 768	126 469
Pará.....	248 806	125 331	101 250	830	1 416	20 145	1 690	123 475
Maranhão.....	351 213	163 759	100 802	2 250	100	49 800	10 807	187 454
Piauí.....	204 526	83 149	48 550	210	20	32 409	1 960	121 377
Ceará.....	388 589	249 683	204 050	1 001	1 515	35 842	7 275	138 906
Rio Grande do Norte.....	127 882	91 847	66 350	867	1 430	18 700	4 500	36 035
Paraíba.....	230 000	141 054	110 650	2 044	560	23 750	4 050	88 946
Pernambuco.....	713 826	530 706	480 301	3 500	500	31 701	14 704	183 120
Alagoas.....	208 860	165 138	144 982	1 657	220	16 054	2 225	43 722
Sergipe.....	134 165	68 123	45 450	401	800	20 350	1 122	66 042
Bahia.....	1 177 000	702 344	586 001	6 303	9 100	70 040	30 900	474 656
Minas Gerais.....	3 466 978	1 912 544	1 593 641	60 822	26 495	85 186	146 400	1 554 434
Espírito Santo.....	424 830	251 160	198 196	6 330	800	25 040	20 794	173 670
Rio de Janeiro.....	1 153 367	1 010 245	931 100	16 140	1 501	39 000	22 504	143 122
Guanabara.....	2 882 706	2 867 633	2 717 300	27 113	—	30 200	93 020	15 073
São Paulo.....	13 121 038	10 979 720	10 482 832	37 012	75 129	85 064	299 683	2 141 318
Paraná.....	1 684 330	1 310 740	1 145 235	62 315	1 000	33 680	68 500	373 590
Santa Catarina.....	876 829	562 610	518 000	12 600	200	17 500	14 310	314 219
Rio Grande do Sul.....	2 569 134	2 147 791	1 924 358	8 960	15 916	73 377	125 180	421 343
Mato Grosso.....	308 112	203 362	188 600	850	1 100	10 750	2 062	104 750
Goiás.....	515 767	434 918	384 467	25 048	—	20 160	5 243	80 849
Federal District.....	588 978	489 198	189 405	2 020	1 450	288 078	8 245	89 780
BRAZIL.....	31 766 046	24 177 370	22 305 656	281 784	139 400	1 093 420	897 110	7 048 676

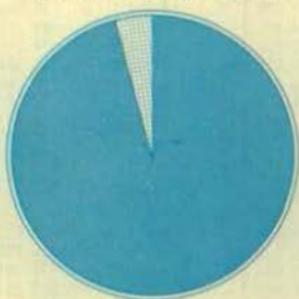
SOURCE — Subsecretaria de Economia e Finanças.

STATES FINANCES

Tax receipts collected

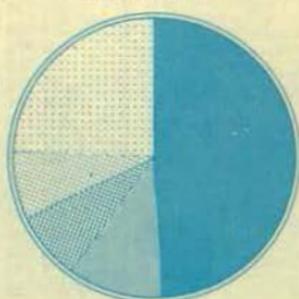


TAX RECEIPTS COLLECTED - 1971



Taxes
Duties

SALES TAX - 1971



São Paulo
R. Grande do Sul
Guanabara
Minas Gerais
Other

6.2.2 — STATE FINANCES

6.2.2.3 — Budget — 1972

b) Budgetary expenditure, by economic categories and States

STATES	BUDGETARY EXPENDITURE (Cr\$ 1 000)				
	Total	Current expenditures			Capital expenditures
		Total	Maintenance	Current transfers	
Acre.....	91 119	58 219	49 452	8 767	32 900
Amazonas.....	297 991	162 425	80 062	82 363	135 566
Pará.....	248 806	139 833	77 902	61 931	108 973
Maranhão.....	351 214	172 367	86 354	86 013	178 847
Piauí.....	204 525	117 859	85 494	32 365	86 666
Ceará.....	388 589	254 927	155 095	99 832	133 662
Rio Grande do Norte.....	127 882	95 825	74 556	21 269	32 057
Paraíba.....	230 000	145 825	93 936	51 889	84 175
Pernambuco.....	713 826	530 638	334 884	195 754	183 188
Alagoas.....	208 860	167 815	90 649	77 166	41 045
Sergipe.....	134 165	72 192	43 955	28 237	61 973
Bahia.....	1 177 000	742 975	466 825	276 150	434 025
Minas Gerais.....	3 466 978	2 176 838	1 260 300	916 538	1 290 140
Espírito Santo.....	424 830	210 938	133 711	77 227	213 882
Rio de Janeiro.....	1 153 367	905 007	584 944	320 063	248 360
Guanabara.....	2 882 706	2 437 881	1 021 025	1 416 856	444 825
São Paulo.....	13 121 038	9 426 541	4 141 488	5 285 053	3 694 497
Paraná.....	1 684 330	1 050 675	659 575	391 100	633 655
Santa Catarina.....	876 829	473 614	251 833	221 781	403 215
Rio Grande do Sul.....	2 569 135	1 983 439	1 071 075	912 364	585 696
Mato Grosso.....	317 359	151 068	87 368	63 700	166 291
Goiás.....	515 767	312 094	150 280	161 814	203 673
Federal District.....	588 978	433 925	186 434	267 491	155 053
BRAZIL.....	31 775 294	22 222 920	11 167 197	11 055 723	9 552 374

SOURCE — Subsecretaria de Economia e Finanças.

6.2.3 — MUNICIPAL FINANCES

6.2.3.1 — Budget accounts — 1962-1969

a) Receipts

YEARS	RECEIPTS (Cr\$ 1 000)		
	Budgetary	Actually collected	Balance
1962.....	84 233	94 292 +	10 059
1965.....	533 418	635 265 +	101 847
1968.....	2 859 895	3 227 101 +	367 206
1969.....	4 376 965	3 970 260 +	406 705

SOURCE — Subsecretaria de Economia e Finanças.

b) Expenditure

YEARS	EXPENDITURE (Cr\$ 1 000)		
	Budgetary	Outlays	Balance
1962.....	93 090	100 392 +	7 302
1965.....	606 828	672 622 +	65 794
1968.....	2 857 217	3 277 972 +	420 755
1969.....	4 384 945	4 125 163 -	259 782

SOURCE — Subsecretaria de Economia e Finanças.

6.2.3.2 — Budget receipts and expenditure — 1962-1969

YEARS	VALUE (Cr\$ 1 000)		SURPLUS OR DEFICIT	
	Receipts	Expenditure	Absolute numbers (Cr\$ 1 000)	Percentage
1962.....	94 292	100 392	- 6 100	- 6,5
1965.....	635 265	672 622	- 37 357	- 5,9
1968.....	3 227 101	3 277 972	- 50 871	- 1,6
1969.....	3 970 260	4 125 163	- 154 903	- 3,9

SOURCE — Subsecretaria de Economia e Finanças.

6.2.3 — MUNICIPAL FINANCES

6.2.3.3 — Budget — 1972

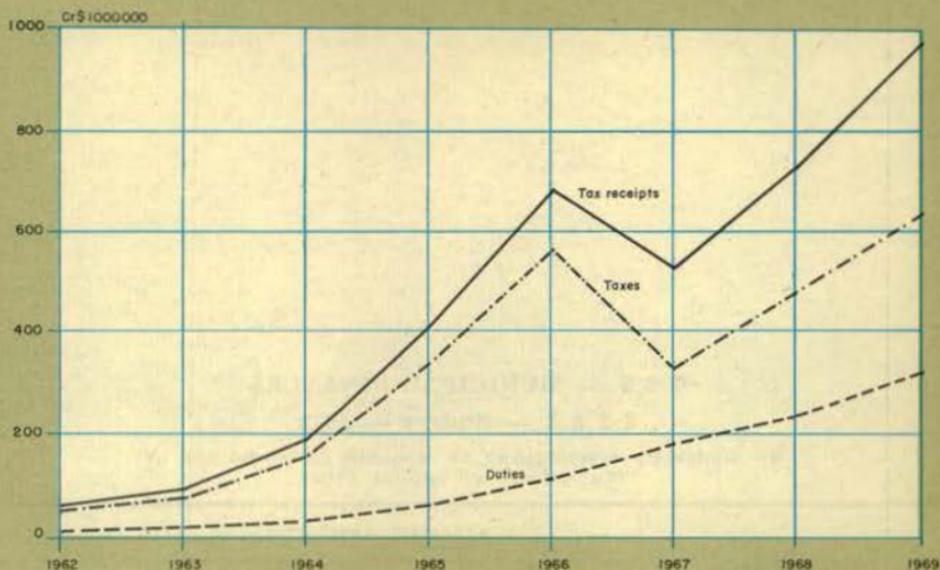
a) Budgetary receipts, by nature and by "Municipios" of Capital Cities

"MUNICIPIOS" OF CAPITAL CITIES	BUDGETARY RECEIPTS (Cr\$ 1 000)							Capital receipts
	Total	Current receipts					Other	
		Total	Tax	Property	Industrial	Current transfers		
Porto Velho, RO.....	9 866	4 638	1 925	487	—	1 880	346	5 228
Rio Branco, AC.....	13 316	9 056	4 609	1 600	—	2 286	561	4 260
Manaus, AM.....	48 816	35 329	12 064	1 086	1 815	16 434	3 930	13 487
Boa Vista, RR.....	6 249	2 375	586	233	—	1 465	91	3 874
Belém, PA.....	57 729	38 100	12 400	500	1 100	18 100	6 000	19 629
Macapá, AP.....	5 400	2 698	654	142	265	1 363	274	2 702
São Luís, MA.....	27 657	17 220	8 266	463	—	7 703	788	10 437
Teresina, PI.....	14 941	11 426	3 668	260	—	4 019	3 479	3 515
Fortaleza, CE.....	67 201	45 236	18 023	127	—	25 310	1 776	21 965
Natal, RN.....	15 594	12 253	3 371	823	4	6 420	1 635	3 341
João Pessoa, PB.....	14 613	11 184	3 918	30	—	5 981	1 255	3 429
Recife, PE.....	152 036	120 889	52 900	650	—	60 994	6 345	31 147
Maceió, AL.....	19 472	16 710	5 616	15	13	8 935	2 131	2 762
Aracaju, SE.....	19 525	13 233	5 076	260	31	6 812	1 054	6 292
Salvador, BA.....	139 200	125 593	54 438	721	—	54 192	16 212	13 607
Belo Horizonte, MG.....	244 047	206 382	128 440	3 284	4	55 612	19 042	37 665
Vitória, ES.....	33 240	25 221	9 732	150	0	13 041	2 298	8 019
Niterói, RJ.....	64 000	61 780	37 860	170	—	16 250	7 500	2 220
São Paulo, SP.....	2 120 000	2 012 740	969 915	5 200	—	902 050	135 575	107 260
Curitiba, PR.....	155 870	119 368	55 592	538	200	42 370	20 668	36 502
Florianópolis, SC.....	14 186	12 728	5 030	301	—	6 597	800	1 458
Porto Alegre, RS.....	202 794	197 238	89 109	650	2 552	94 371	10 556	5 556
Cuiabá, MT.....	14 562	9 272	3 169	577	—	4 071	1 455	5 290
Goiânia, GO.....	64 532	36 343	14 375	137	—	19 766	2 065	28 189
TOTAL.....	3 524 846	3 147 012	1 500 766	18 404	5 984	1 376 022	245 836	377 834

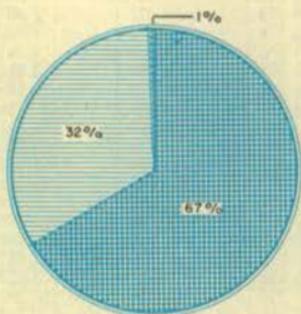
SOURCE — Subsecretaria de Economia e Finanças.

MUNICIPAL FINANCES

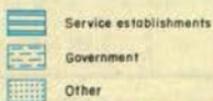
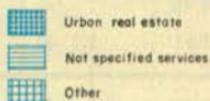
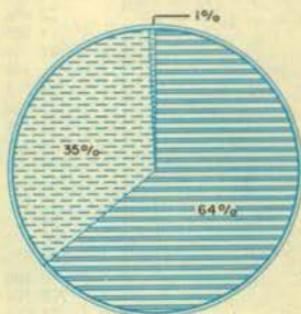
Tax receipts collected



TAXES - 1969



DUTIES - 1969



6.2.3 — MUNICIPAL FINANCES

6.2.3.3 — Budget — 1972

b) Budgetary expenditures, by economic categories and by "Municípios" of Capital Cities

"MUNICÍPIOS" OF CAPITAL CITIES	BUDGETARY EXPENDITURES (Cr\$ 1 000)				
	Total	Current expenditures			Capital expenditures
		Total	Maintenance	Current transfers	
Porto Velho, RO.....	9 866	4 441	3 749	692	5 425
Rio Branco, AC.....	13 316	4 164	3 550	614	9 152
Manaus, AM.....	48 816	20 796	14 004	6 792	28 020
Boa Vista, RR.....	6 248	2 357	1 976	381	3 891
Belém, PA.....	57 730	27 277	18 487	8 790	30 453
Macapá, AP.....	5 400	2 698	2 104	594	2 702
São Luis, MA.....	27 657	16 979	14 322	2 657	10 678
Teresina, PI.....	14 941	8 184	6 352	1 832	6 757
Fortaleza, CE.....	67 201	45 215	31 958	13 257	21 986
Natal, RN.....	15 594	12 054	9 142	2 912	3 540
João Pessoa, PB.....	14 613	9 998	8 410	1 588	4 615
Recife, PE.....	152 036	90 311	58 955	31 356	61 725
Maceió, AL.....	19 472	15 831	4 300	11 531	3 641
Aracaju, SE.....	19 525	14 165	9 812	4 353	5 360
Salvador, BA.....	139 200	113 800	47 564	66 236	25 400
Belo Horizonte, MG.....	244 047	141 507	87 692	53 815	102 540
Vitória, ES.....	33 240	22 824	16 983	5 841	10 416
Niterói, RJ.....	64 000	49 953	34 748	15 205	14 047
São Paulo, SP.....	2 120 000	1 086 230	883 433	202 797	1 033 770
Curitiba, PR.....	155 870	91 670	63 209	28 461	64 200
Florianópolis, SC.....	14 186	9 056	5 394	3 662	5 130
Porto Alegre, RS.....	202 794	155 313	105 025	50 288	47 481
Cuiabá, MT.....	14 562	7 330	6 088	1 242	7 232
Goiânia, GO.....	64 532	29 945	24 440	5 505	34 587
TOTAL.....	3 524 846	1 982 098	1 461 697	520 401	1 542 748

SOURCE — Subsecretaria de Economia e Finanças.

6.2.3 — MUNICIPAL FINANCES

6.2.3.4 — Balance — 1969

a) Receipts collected, by nature and by States and Territories

STATES AND TERRITORIES	RECEIPTS COLLECTED (Cr\$ 1 000)							Capital receipts
	Total	Current receipts					Other	
		Total	Tax	Property	Industrial	Current transfers		
Rondônia, Territory .....	...	...	...	...	...	...	...	...
Acre	4 359	2 756	413	163	15	1 687	478	1 603
Amazonas	21 768	13 699	1 903	675	996	9 182	943	8 069
Roraima, Territory	2 811	2 075	142	258	39	1 532	104	736
Pará	46 856	29 415	6 056	1 685	275	18 469	2 950	17 441
Amapá, Territory	486	210	13	18	10	166	3	276
Maranhão	34 555	21 011	2 391	483	41	17 253	843	13 544
Piauí	24 434	14 166	1 709	494	100	11 239	624	10 268
Ceará	64 945	43 141	7 663	866	314	31 632	2 666	21 804
Rio Grande do Norte	28 020	18 688	2 469	230	164	14 256	1 569	9 332
Paraíba	43 624	30 583	3 389	329	733	23 133	2 999	13 041
Pernambuco	124 135	104 733	20 665	1 208	1 078	68 729	13 053	19 402
Alagoas	32 759	24 069	3 839	223	222	17 450	2 535	8 690
Sergipe	24 264	15 612	2 784	353	660	10 199	1 616	8 652
Bahia	201 845	140 918	34 387	1 546	2 005	84 042	18 938	60 927
Minas Gerais	355 250	287 417	65 439	4 953	11 533	179 121	26 371	67 833
Espírito Santo	37 257	27 548	6 856	291	572	17 629	2 200	9 709
Rio de Janeiro	168 214	151 397	43 622	941	678	88 455	17 701	16 817
São Paulo	1 945 697	1 761 888	619 031	7 458	41 737	962 757	130 905	183 809
Paraná	266 903	220 114	54 061	1 263	2 097	144 988	17 705	46 789
Santa Catarina	106 590	87 084	21 383	577	1 184	58 878	5 062	19 506
Rio Grande do Sul	325 809	282 537	63 886	2 091	10 127	182 015	24 418	43 272
Mato Grosso	44 681	31 463	6 809	875	823	19 785	3 071	13 218
Goias	64 998	45 724	10 694	462	405	31 545	2 618	19 274
BRAZIL	3 970 260	3 356 248	979 404	27 422	75 908	1 994 142	279 372	614 012

SOURCE — Subsecretaria de Economia e Finanças.

6.2.3 — MUNICIPAL FINANCES

6.2.3.4 — Balance — 1969

b) Outlays, by economic categories and by States and Territories

STATES AND TERRITORIES	OUTLAYS (Cr\$ 1 000)				
	Total	Current expenditures			Capital expenditures
		Total	Maintenance	Current transfers	
Rorondônia, Territory	...	...	...	...	...
Acre	6 133	1 846	1 686	160	4 287
Amazonas	21 998	10 203	8 318	1 885	11 795
Roraima, Territory	2 949	2 064	1 360	704	885
Pará	47 237	25 089	21 775	3 314	22 148
Amapá, Territory	458	242	211	31	216
Maranhão	34 809	18 469	17 367	1 102	16 340
Piauí	25 395	12 972	11 803	1 169	12 423
Ceará	64 813	36 277	30 522	5 755	28 636
Rio Grande do Norte	28 276	19 197	16 741	2 456	9 079
Paraíba	44 637	28 203	25 029	3 174	16 434
Pernambuco	128 357	88 283	70 898	17 385	40 074
Alagoas	33 024	22 822	14 082	8 740	10 202
Sergipe	24 332	14 665	12 441	2 224	9 667
Bahia	188 304	125 907	78 665	47 242	62 397
Minas Gerais	366 355	214 180	169 011	45 169	152 175
Espírito Santo	39 150	24 429	20 318	4 111	14 721
Rio de Janeiro	175 013	128 356	103 044	25 312	46 657
São Paulo	2 064 317	1 119 997	883 332	236 665	944 320
Paraná	272 288	158 519	136 067	22 452	113 769
Santa Catarina	109 339	64 005	54 921	9 084	45 334
Rio Grande do Sul	331 595	251 035	197 589	53 446	80 560
Mato Grosso	45 886	25 354	23 581	1 773	20 532
Goiás	70 398	36 216	30 174	6 042	34 182
BRAZIL	4 125 163	2 428 330	1 928 935	499 395	1 696 833

SOURCE — Subsecretaria de Economia e Finanças.

CONVERSION FACTORS

<i>Metric Units</i>		<i>Equivalents</i>
1 meter (m)	3.280840	feet
1 square meter (m ²)	10.76391	square feet
1 kilometer (km)	0.6213712	mile
	0.5399568	int. naut. mile
1 square kilometer (km ²)	0.3861022	square mile
1 litre (l)	0.8798766	Imp. quart
	1.056688	U.S. liq. quart
	0.908083	U.S. dry quart
1 ton (metric tons)	1.102311	short tons
	0.9842065	long tons
1 passenger-km	0.621371	passenger-mile
1 ton-km	0.684945	short ton-mile
	0.611558	long ton-mile
1 kilowatt (kW)	1.34102	British horsepower (hp)
	1.35962	cheval vapeur or metric horsepower (cv)
1 megawatt (MW)	1.000	kilowatts

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