

DOCUMENT OF INTERNATIONAL MONETARY FUND AND NOT FOR PUBLIC USE

SM/81/207  
Correction 1

CONTAINS CONFIDENTIAL  
INFORMATION

November 19, 1981

To: Members of the Executive Board  
From: The Secretary  
Subject: Brazil - Recent Economic Developments

The following corrections have been made in SM/81/207 (11/3/81):

Page 14, 2nd full para., last line: for "1982" read "1983"

Page 20, heading, line 1: for "Diesel Oils" read "Fuel Oils"

Page 46a, Chart 7: revised

Page 58, Table 29: updated to include figures for October 8, 20, and 27

Page 58a, Chart 11, footnote 3, line 2: for "Argentina, Canada" read "Chile"  
line 3: Add "Spain" after "Netherlands"

Page 65, Table 34, last column, line 13: for "15,488" read "154,880"

Page 67, Table 35, columns 1980 and 1981, line 10: for "--" "--"  
read "520.7" and "424.5"

Corrected pages are attached.

Att: (7)

Other Distribution:  
Department Heads



Table 9. Brazil: Index of Industrial Production  
(By Type of Industrial Use)

	1976	1977	1978	1979	1980	Jan.-June	
						1980	1981
(1975 average = 100)							
Capital goods	114.9	109.8	117.3	124.0	132.2	...	...
Intermediate goods	112.8	121.2	129.3	141.2	152.9	...	...
Consumer goods--durables	114.6	115.2	134.2	144.3	159.7	...	...
Consumer goods-- nondurables	111.2	110.6	118.6	124.2	130.7	...	...
(In percentage change over previous year)							
Capital goods	14.9	-4.4	6.8	5.7	6.6	...	-4.8
Intermediate goods	12.8	7.4	6.7	9.2	8.3	...	-3.1
Consumer goods--durables	14.6	0.5	16.5	7.5	10.7	...	-15.8
Consumer goods-- nondurables	11.2	-0.5	7.2	4.7	5.2	...	-0.6

Sources: IBGE; and Getulio Vargas Foundation.

The measures introduced toward the end of 1980 and early 1981, which were referred to above, have affected the growth of the manufacturing sector. Despite the stimulation of manufacturing exports by the more favorable exchange rate and export subsidies, available data indicate that manufacturing output for the first six months of the year showed a decline of 3 per cent compared with the corresponding period of 1980. Production declines were registered in all major branches of manufacturing production--capital goods (down by 5 per cent), intermediate goods (by 3 per cent), and consumer goods (by 3 per cent). Within the consumer goods sector, industries producing durable consumer goods declined by about 16 per cent compared with the corresponding period of 1980. The automobile industry has been hardest hit with production in the first six months of 1981 declining by 20 per cent in relation to the same period of last year. Demand for durable consumer goods has fallen as a result of increases in domestic interest rates. Domestic demand for intermediate goods has also declined following the sizable buildup of inventories that occurred last year. Capital goods output has been affected by the slowdown in capital spending by the public enterprises.

A new five-year industrial development strategy took effect in 1980. The strategy identifies three policy areas for special emphasis. First, it seeks to limit expansion of new capacity in heavy industry except in four key areas: steel, aluminum and alumina, cement, and petrochemicals. Second, it seeks to foster a dispersion of industry away from the Rio de

Janeiro-Sao Paulo axis. This is to be promoted by offering special incentives for industry locating in the northeast regions of the country. Incentives will mainly take the form of government investment in infrastructure in the designated regions. Third, the profile of the industrial sector is also to be changed in two important ways: subsidies to manufacturing are to be eliminated gradually so as to force domestic industry to compete efficiently in world markets, and consumer goods industries producing for the local market will be encouraged to produce increasingly for lower-income groups. Demand from these groups is to be strengthened through measures designed to redistribute income.

d. Energy 1/

During the period 1973-79 the volume of Brazil's oil imports rose by 60 per cent and the value of the shipments increased by over 800 per cent to a yearly figure of US\$6.5 billion. In 1980 the oil import bill increased by another 53 per cent despite a decline of 10 per cent in volume. At US\$9.9 billion, the cost of oil imports was close to one half of total export earnings in that year.

In recent years Brazil has intensified its efforts to lower its dependence on imported energy through action on three main fronts: (1) increase in production of domestic crude oil; (2) intensification of energy conservation measures; and (3) maximum utilization of alternative energy sources. In pursuit of the first objective PETROBRAS 2/ increased the volume of drilling activity by one third in 1979 and a further 16 per cent in 1980. Over this period the level of known reserves increased by close to one fifth to 213 million cubic meters (1.34 billion barrels). Average production in 1981 is projected to exceed 220,000 barrels a day, and to rise to as much as 350,000 barrels a day in 1983.

Brazil is also intensifying its search for new oil reserves. While the exploration activities of PETROBRAS continue to be concentrated in the Bacia de Campos region, the company has begun to open up new areas to risk contracts 3/ with international oil companies. Recently PETROBRAS announced a program of exploration projected to cost US\$15 billion over the period 1981-85. The program will cover exploration activities both on land and on the continental shelf.

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1/ A full description of Brazil's energy for the period up to 1985 is given in the Appendix on the Energy Sector in SM/80/148 (6/25/80).

2/ PETROBRAS is a government-owned company which by law has a virtual monopoly in the production, importation, and refining of petroleum in Brazil.

3/ Under such contracts the foreign company undertakes to invest in exploratory drilling, testing, and other activities related to the evaluation of a prospective oil or gas field. However, if oil or gas is found in commercial quantities, production is to be carried out by PETROBRAS and the foreign company is reimbursed for its developmental expenses and is given a compensation over time in proportion to the amount of oil or gas activity produced.

### c. Recent changes in energy prices

As part of its energy conservation efforts, Brazil has had an ongoing policy of adjusting domestic prices for oil derivatives in line with changes in international fuel prices. However, in the face of the sharp increases in international oil prices in the second half of 1979 and the maxidevaluation of the cruzeiro in December of that year, the National Council for Domestic Oil Prices decided to phase adjustments to domestic prices over an extended period so as to contain inflationary pressures. Despite the gradual approach, the cumulative impact of adjustments to the prices of petroleum derivatives was considerable during 1980. The largest increase--more than 400 per cent--was applied to the prices of industrial fuels; gasoline prices rose by over 110 per cent, while the price of liquified gas (LPG) doubled. Following the precedent set since the first oil price shock of 1973, increases in the prices of diesel and kerosene--about 70 per cent and 33 per cent, respectively--continued to lag behind those of other derivatives (Table 10 and Chart 4).

To stimulate demand for alcohol-powered cars and allow for the reduced caloric value of alcohol, the authorities have undertaken to limit the cost of this fuel to a maximum of 65 per cent of the price of gasoline. At the end of 1979 the price of alcohol was roughly one half that of gasoline. During 1980 the alcohol price increased by 140 per cent, and at year-end was equivalent to 54 per cent of gasoline prices.

Adjustments to energy prices were accelerated during 1981. Moreover, in the context of an economic strategy that sought to reduce subsidies, somewhat larger adjustments were made in diesel and kerosene prices. In the first ten months of the year, the prices of diesel and kerosene increased by over 150 per cent; price increases for LPG, industrial fuel oils, and alcohol ranged from 90 to 100 per cent; and gasoline prices rose by about two thirds. The nominal price of alcohol is now roughly 60 per cent that of gasoline.

## 2. Wages

Prior to the introduction of a new wage policy in November 1979, wage adjustments in the manufacturing sector and in public enterprises reflected both past and projected inflation as well as for increases in productivity.<sup>1/</sup> The adjustments for inflation were based on a composite

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<sup>1/</sup> The formula used was:  $S/S_i = 1/12 M_i(1 + 0.5t_n)(1 + p^*n)$   
 $[(1 + 0.5q_{n-1})/(1 + 0.5t_{n-1})]$  where:

S is the new wage after correction;

S<sub>i</sub> is the wage during the previous 12 months;

M<sub>i</sub> is a monetary correction factor for the month in which the wage is corrected;

t<sub>n</sub> is a projected inflation factor;

p<sup>\*</sup>n is a productivity factor, corrected by the terms of trade between industry and agriculture;

q<sub>n-1</sub> is the actual increase in the cost of living during the previous 12 months;

t<sub>n-1</sub> is the projected inflation rate utilized at the time of the last adjustment.

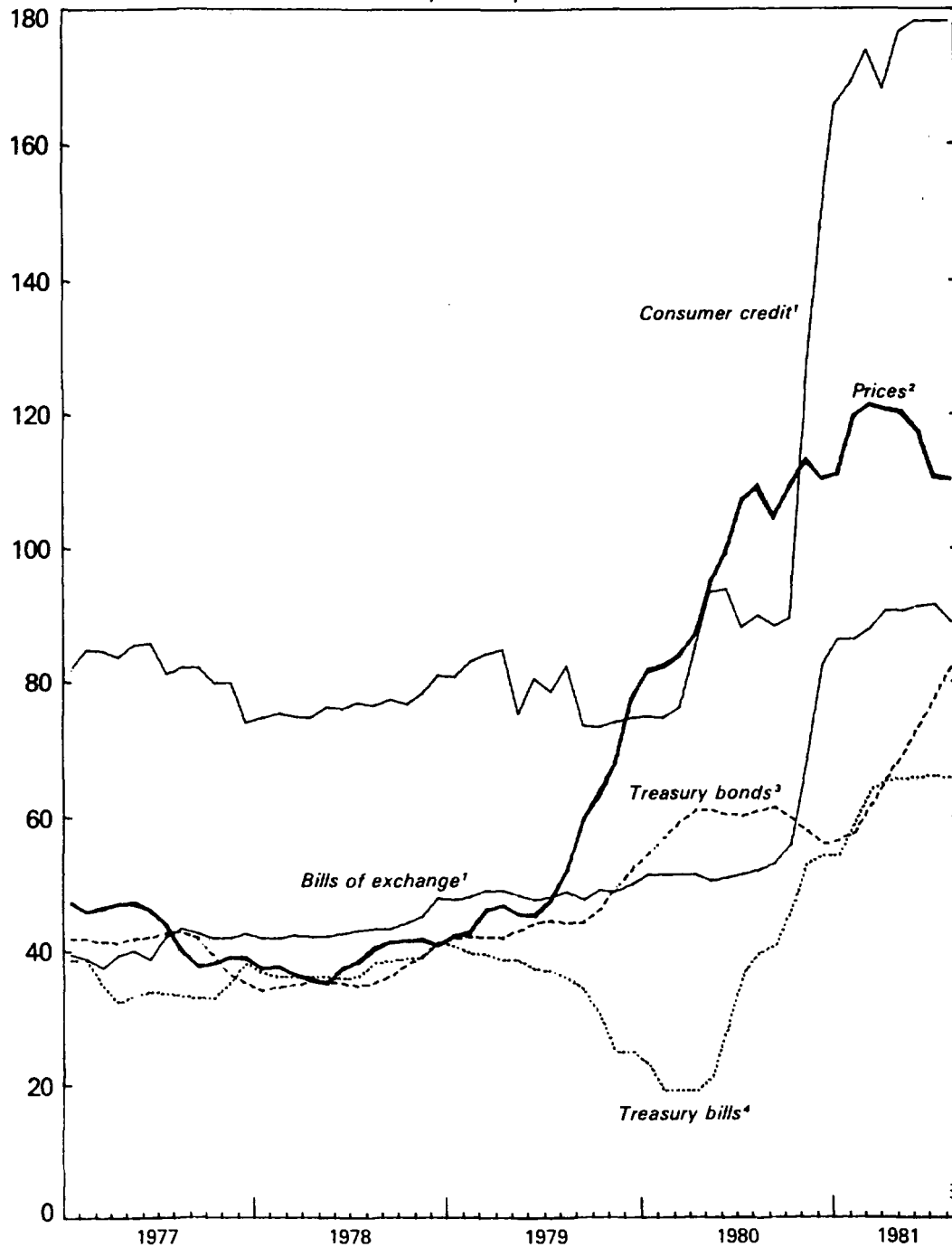
Table 10. Brazil: Domestic Prices of Certain Petroleum Derivatives

		Gasoline	Kerosene	Diesel Fuel	LPG	Fuel Oils	
	Alcohol	line				A/BFB	BTE
	(In Cr\$ per liter)				(In Cr\$ per kilo)		
<b>1978</b>							
December 31	...	8.40	4.72	4.60	7.20	1.07	1.24
<b>1979</b>							
February 9	...	9.60	5.90	5.40	8.40	1.40	1.60
May 24	...	10.20	6.30	5.80	8.40	1.60	2.00
June 1	6.72	10.20	6.30	5.80	8.40	1.60	2.00
July 28	6.72	10.20	9.45	8.70	8.40	2.40	3.00
September 4	6.72	14.30	9.45	8.70	9.30	2.40	3.00
November 11	6.72	22.60	14.94	12.00	9.30	2.40	3.00
December 11	11.40	22.60	14.94	12.00	9.30	2.40	3.00
<b>1980</b>							
March 19	11.40	26.00	16.40	12.00	10.70	3.60	4.50
April 24	11.40	28.00	16.40	12.50	11.80	4.50	5.60
May 19	18.20	28.00	16.40	12.50	11.80	4.50	5.60
May 29	18.20	30.00	16.40	13.50	12.75	5.60	7.00
June 26	18.20	34.50	16.40	15.00	14.70	7.00	8.75
July 31	18.20	38.00	18.40	15.70	16.30	8.75	10.95
September 27	24.70	38.00	18.40	15.70	16.30	8.75	10.95
October 3	24.70	45.00	20.00	17.30	18.00	10.50	13.10
December 4	24.70	51.00	20.00	20.00	19.00	12.10	15.10
December 12	27.50	51.00	20.00	20.00	19.00	12.10	15.10
<b>1981</b>							
February 4	32.00	60.00	22.00	26.00	22.00	14.60	18.20
February 25	32.00	60.00	26.50	26.00	22.00	14.60	18.20
April 17	32.00	66.00	33.00	32.50	26.40	18.30	22.80
June 28	32.00	75.00	33.00	42.00	26.40	18.30	22.80
July 16	32.00	75.00	43.00	42.00	32.00	20.00	24.90
July 27	48.00	75.00	43.00	42.00	32.00	20.00	24.90
October 19	52.00	85.00	51.00	50.00	37.00	23.00	28.60

Source: Ministry of Planning.

CHART 7  
BRAZIL  
INTEREST RATES

(In per cent per annum)



Source: Central Bank of Brazil.

<sup>1</sup> Finance companies.

<sup>2</sup> General price index-domestic supply.

<sup>3</sup> Yield on securities acquired 12 months before the indicated month including monetary correction.

<sup>4</sup> Rate of return on 91 day Treasury bills in the primary market.





## VII. Recent Developments in the Exchange and Trade System

### 1. Background

Following the 1973-74 oil price shock, Brazil's exchange and trade system underwent a number of modifications aimed at facilitating the country's adjustment to the changes in the terms of trade. The flexible exchange rate policy characterized by small but frequent exchange rate modifications, in effect since 1968, was continued; however, the real effective depreciation of the cruzeiro during the period up to 1979 was rather modest. This exchange rate policy was accompanied by a system of export incentives for industrial products which included tax credits or exemptions from income and indirect taxes, an export insurance scheme, and the provision of credit to exporters at preferential interest rates. On the import side, the authorities granted a number of fiscal and credit incentives to encourage the domestic production of import substitutes and reversed earlier reductions in import taxation. In addition, heavy reliance was placed on direct and indirect import controls. These included advance import deposit requirements, the implementation of a comprehensive program to reduce imports by the public sector, and administrative delays in the operation of the import licensing scheme.

Faced with a new upsurge in world oil prices in the second half of 1979, the Brazilian authorities announced in December 1979 a comprehensive package of measures in the exchange, trade, fiscal, and monetary fields. The new measures, which accompanied a major devaluation (by 30 per cent) of the cruzeiro, entailed a simplification of trade regulations, a major reduction in existing subsidies, the elimination of the advance import deposit requirement and of the tax credits granted to exporters, and a greater reliance on the price mechanism for the allocation of resources.

### 2. Recent developments

In January 1980 the authorities announced that they would be depreciating the cruzeiro with respect to the U.S. dollar by 40 per cent within their system of small but frequent adjustments (minidevaluations). This preannounced rate of depreciation was consistent with an inflation target of 50 per cent and assumed external inflation of about 10 per cent. By November, the disparity between this target rate of devaluation and the rate of domestic inflation had resulted in a sizable appreciation of the cruzeiro; the authorities abandoned the practice of advance announcement of the devaluation rate for the cruzeiro and began to devalue the cruzeiro in line with domestic price movements. As a consequence of these developments, the cruzeiro depreciated by 35.1 per cent during 1980 (54 per cent in terms of cruzeiros per U.S. dollar), and by 43 per cent in the ten months ended October 1981 (75.3 per cent in terms of cruzeiros per U.S. dollar). In real terms and on a trade-weighted basis the cruzeiro appreciated by 21 per cent during 1980 (Table 29 and Chart 11); during the early part of 1981, even though the cruzeiro has slightly depreciated in real terms in relation to the U.S. dollar, the trade-weighted real rate continued to appreciate, although at a slower rate than in the previous year, as a consequence of the relative changes in the rates for major currencies.

Table 29. Brazil: Nominal and Effective Exchange Rates, 1973-81

Effective Date	Buying (Cr\$ per US\$)	Selling (Cr\$ per US\$)	Percentage Depreciation in Terms of US\$ per Cr\$	Percentage Depreciation in Terms of Cr\$ per US\$	Percentage Depreciation 1/ of Real Exchange Rate in Terms of Cr\$ per US\$ 2/	Percentage Depreciation 1/ of Real Effective Exchange Rate in Terms of Cr\$ per Currencies of Major Trading Partners 3/
(End of period)						
1976	12.275	12.345	26.5	36.1	3.3	-2.2
1977	15.950	16.050	23.1	30.0	2.3	6.4
1978	20.780	20.920	23.3	30.3	1.0	4.2
1979	42.330	42.530	50.9	103.5	32.9	26.6
1980	65.170	65.500	35.1	54.0	-17.3	-21.1
(Effective date)						
1981						
January 7	66.80	67.13	2.4	2.5		
January 19	68.10	68.44	1.9	2.0		
February 2	69.19	69.54	1.6	1.6		
February 11	70.16	70.51	1.4	1.4		
February 23	71.51	71.87	1.9	1.9		
March 9	73.01	73.38	2.1	2.1		
March 17	74.69	75.06	2.2	2.3		
March 26	76.15	76.53	1.9	2.0		
April 8	77.90	78.29	2.2	2.3		
April 15	79.46	79.86	2.0	2.0		
April 24	80.95	81.35	1.8	1.9		
May 5	82.53	82.94	1.9	2.0		
May 18	84.26	84.68	2.1	2.1		
May 26	85.80	86.23	1.8	1.8		
June 8	87.70	88.14	2.2	2.2		
June 17	89.23	89.68	1.7	1.7		
June 25	90.95	91.40	1.9	1.9		
July 8	92.74	93.20	1.9	2.0		
July 20	94.69	95.16	2.1	2.1		
July 28	96.40	96.88	1.8	1.8		
August 6	98.62	99.11	2.3	2.3		
August 19	100.49	100.99	1.9	1.9		
August 26	102.18	102.69	1.7	1.7		
September 9	104.12	104.64	1.9	1.9		
September 18	105.99	106.52	1.8	1.8		
September 28	108.10	108.64	2.0	2.0		
October 8	110.12	110.67	1.8	1.9		
October 20	112.16	112.72	1.8	1.9		
October 27	114.26	114.83	1.8	1.9		

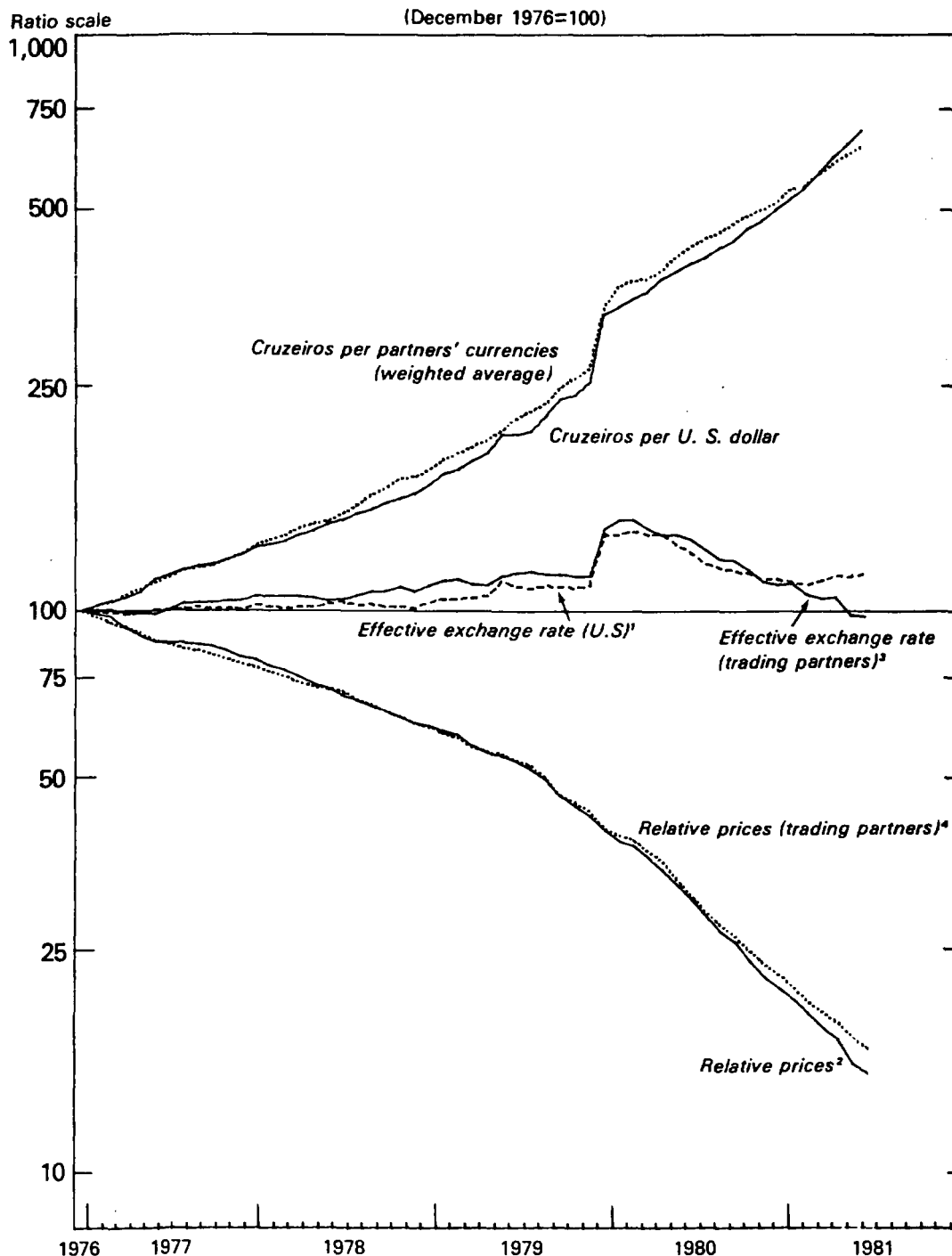
Sources: Central Bank of Brazil; and Fund staff estimates.

1/ A negative sign indicates an appreciation of the real exchange rate.

2/ Defined as the percentage change in the index of cruzeiros per U.S. dollar, adjusted for relative changes in industrial wholesale prices in Brazil and the United States.

3/ Defined as the percentage change in the index of cruzeiros in relation to a currency basket of nine major trading partners (weighted by 1979 trade weights), adjusted for changes in relative wholesale prices in Brazil and trading partners. The trading partners are Chile, France, Germany, Italy, Japan, Netherlands, Spain, United Kingdom, and United States.

# CHART 11 BRAZIL EFFECTIVE EXCHANGE RATES



Sources: Getulio Vargas Foundation; IMF data fund; and Fund staff estimates.

<sup>1</sup> Defined as the index of cruzeiros in relation to the U.S. dollar, adjusted for relative prices.

<sup>2</sup> Index of industrial wholesale prices in the United States relative to index of industrial wholesale prices in Brazil.

<sup>3</sup> Defined as the index of cruzeiros in relation to a weighted average of currencies of major trading partners, adjusted for relative prices. Partners are: Chile, France, Germany, Italy, Japan, Netherlands, Spain, U.K., and U.S.

<sup>4</sup> Index of wholesale prices of major trading partners (weighted average) relative to index of wholesale prices in Brazil.

Note: Effective exchange rate index above 100 indicates depreciation relative to base period.



Table 34. Brazil: Agricultural Statistics

(Production exports and imports in thousands of metric tons; area in thousands of hectares; and yield in kilograms per hectare)

	1976	1977	1978	1979	Prel. 1980	Est. 1981
<u>Export crops</u>						
Coffee (grain)						
Production	708	1,915	2,535	2,666	1,996	3,743
Exports of beans and soluble	849	548	663	562	784	990
Area	1,082	1,946	2,124	2,323	2,107	2,282
Yield	654	984	1,193	1,148	947	1,640
Soybeans						
Production	11,227	12,513	9,541	10,240	15,153	15,452
Exports	3,639	2,587	659	638	1,548	621
Area	6,416	7,070	7,778	8,331	8,766	8,715
Yield	1,750	1,770	1,227	1,229	1,729	1,773
Cotton						
Production	1,279	1,903	1,570	1,636	1,673	1,902
Exports of raw cotton	6	35	44	--	--	--
Area	3,474	4,103	3,950	3,642	3,689	3,834
Yield	368	464	397	449	454	496
Sugarcane						
Production	103,282	120,198	129,145	138,899	146,065	154,880
Exports of raw and refined sugar	1,167	2,455	1,961	1,800	2,561	...
Area	2,089	2,272	2,391	2,518	2,607	2,788
Yield	49,441	52,904	54,013	55,162	56,028	55,552
Bananas						
Production <u>1/</u>	384	410	416	409	449	461
Exports	92	112	132	128	67	32
Area	315	342	318	344	373	386
Yield <u>2/</u>	1,219	1,199	1,308	1,189	1,204	1,194
Cocoa						
Production	232	250	284	336	318	...
Exports	129	108	134	157	124	...
Area	407	412	444	461	482	...
Yield	570	607	640	729	660	...
Corn						
Production	17,845	19,246	13,569	16,309	20,374	21,877
Exports	1,372	1,420	14	10	6	4
Area	11,217	11,777	11,103	11,319	11,438	12,314
Yield	1,591	1,634	1,222	1,441	1,781	1,777
Sisal						
Production	166	225	202	228	235	220
Exports	109	124	90	87	100	34
Area	281	296	270	288	296	281
Yield	591	760	748	792	794	783
Tobacco						
Production	301	360	405	423	407	377
Exports	101	101	109	126	128	59
Area	289	324	328	323	309	289
Yield	1,042	1,111	1,235	1,310	1,317	1,304

Table 34. Brazil: Agricultural Statistics (Concluded)

(Production exports and imports in thousands of metric tons; area in thousands of hectares; and yield in kilograms per hectare)

	1976	1977	1978	1979	Prel. 1980	Est. 1981
<b>Domestic crops</b>						
<b>Beans</b>						
Production	1,842	2,282	2,194	2,187	1,969	2,594
Area	4,080	4,542	4,613	4,214	4,637	5,424
Yield	451	502	476	519	425	478
<b>Castor oil plant</b>						
Production	213	222	317	327	283	339
Area	260	251	348	376	439	462
Yield	819	884	911	870	645	734
<b>Jute</b>						
Production	39	35	17	28	28	41
Area	48	34	17	25	24	38
Yield	812	1,029	1,000	1,120	1,167	1,079
<b>Manioc</b>						
Production	24,839	25,844	25,459	24,962	23,410	24,961
Area	2,044	2,170	2,141	2,109	2,042	2,091
Yield	12,152	11,910	11,891	11,836	11,464	11,937
<b>Onions</b>						
Production	430	489	488	691	697	791
Area	57	61	56	69	67	73
Yield	7,544	8,016	8,714	10,014	10,403	10,836
<b>Oranges</b>						
Production <sup>3/</sup>	36.7	35.8	39.1	42.2	54.3	56.9
Area	423	423	453	549	571	571
Yield <sup>4/</sup>	86.8	84.6	86.3	76.9	95.1	99.6
<b>Peanuts</b>						
Production	514	324	325	462	483	342
Area	372	229	253	288	310	223
Yield	1,382	1,415	1,285	1,604	1,558	1,534
<b>Potatoes</b>						
Production	1,816	1,896	2,014	2,149	1,946	1,978
Area	193	195	210	204	181	177
Yield	9,409	9,723	9,590	10,534	10,751	11,175
<b>Rice</b>						
Production	9,560	8,935	7,296	7,589	9,747	8,688
Area	6,588	5,958	5,595	5,446	6,207	6,216
Yield	1,451	1,500	1,304	1,393	1,570	1,398
<b>Tomatoes</b>						
Production	1,177	1,292	1,465	1,500	1,526	1,597
Area	47	51	55	57	48	50
Yield	25,043	25,333	26,636	26,316	31,792	31,940
<b>Wheat</b>						
Production	3,215	2,066	2,691	2,923	2,708	2,187
Area	3,539	3,141	2,801	3,831	3,083	2,210
Yield	908	658	961	763	878	990
Imports	3,426	2,608	4,334	3,665	4,755	3,900

Sources: Brazilian Institute of Geography and Statistics (IBGE); Central Bank of Brazil (Indicadores de Conjuntura); and Ministry of Agriculture.

1/ In millions of stems.

2/ In stems.

3/ In billions.

4/ In thousands.

Table 35. Brazil: Selected Output Data

	1976	1977	1978	1979	1980	Jan.-June	
						1980	1981
(In thousands of cubic meters)							
Natural gas 1/	1,640	1,808	1,933	1,898	2,205	890 2/	1,000 2/
Crude oil	10,029	9,658	9,636	9,928	10,563	5,296	5,990
Refined petroleum products	54,819	56,048	62,408	64,773	63,489	26,667 2/	25,216 2/
(In thousands of metric tons)							
Rubber	185	211	230	249	277	133	127
Crude steel	9,169	11,164	12,107	13,783	15,337	7,510	7,116
Sheet metal	7,018	8,766	10,173	11,706	13,002	6,186	5,986
Cement	19,147	21,123	23,203	24,871	27,239	12,837	12,522
Iron ore	68,963	61,242	61,959	69,931	84,025	41,503	36,483
Manganese ore	857	608	811	793	939	457	434
(In thousands of units)							
Motor vehicles	985.4	919.8	1,062.1	1,128.1	1,165.2	520.7	424.5
Automobiles	(526.9)	(464.5)	(535.4)	(547.8)	(600.5)	(254.2)	(207.8)
Commercial vehicles	(458.5)	(455.3)	(526.7)	(580.3)	(564.7)	(266.5)	(216.7)
Tractors	71.7	59.4	54.9	64.0	69.4	33.5	...
Tires	19,148	18,675	20,473	21,982	24,005	11,647	9,981
(In millions of Mwh)							
Total electric power consumption	71.4	80.9	90.2	101.0	112.0	54.5	54.9
Industrial	(37.9)	(43.2)	(48.9)	(55.4)	(61.5)	(29.5)	(...)
Residential	(14.7)	(17.0)	(18.8)	(20.9)	(23.2)	(11.4)	(...)
Commercial	(9.9)	(10.5)	(11.3)	(12.5)	(13.7)	(6.9)	(...)
Other	(8.9)	(10.2)	(11.2)	(12.2)	(13.6)	(6.7)	(...)

Source: Central Bank of Brazil, Indicadores de Conjuntura.

1/ In millions of cubic meters.

Table 36. Brazil: Manufacturing Output

(Average percentage changes over corresponding period  
of previous year)

	1976	1977	1978	1979	1980	June 1981
All industries	12.5	2.5	7.6	7.1	7.8	-3.3
Nonmetallic minerals	12.1	8.3	5.6	5.5	6.5	-2.2
Metallurgy	12.4	9.7	5.8	10.9	12.0	-8.1
Machinery	14.4	-6.6	4.8	7.1	15.4	-4.8
Electrical and communi- cation equipment	19.2	1.8	9.4	8.0	5.1	-6.4
Transport equipment	7.4	-2.7	14.2	5.1	2.0	-13.9
Paper	21.0	1.8	11.7	12.8	9.6	-7.9
Rubber	11.2	-2.0	6.7	6.6	9.7	0.8
Chemicals	17.6	6.1	9.0	7.5	3.8	-8.0
Pharmaceuticals	19.4	-14.0	10.2	7.4	13.2	5.6
Toiletries	19.1	9.3	13.0	13.6	9.4	5.0
Plastics	17.7	-0.7	25.2	25.3	12.3	-18.7
Textiles	4.4	0.5	5.1	5.9	6.8	-2.4
Shoes and clothing	9.7	-5.1	8.4	4.0	6.2	2.5
Food	11.7	6.5	3.3	2.3	7.1	8.0
Beverages	15.5	12.6	7.1	5.0	2.7	-6.3
Tobacco	9.1	5.5	6.0	4.0	-0.9	6.1

Source: Brazilian Institute of Geography and Statistics (IBGE), as published in Central Bank of Brazil, Indicadores de Conjuntura.