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discounts of 35 percent of principal or comparable reductions of interest rates were accepted. Equally important, the new money option extends over a four-year period. Brazil needs no less.

Two issues are central. One is the acceptance by the IMF, the World Bank, and the creditor banks of the simultaneity of a domestic stabilization package and a meaningful debt renegotiation. Our basic message is that the success of an adjustment policy is linked to reduction of the external resource transfer. The second requirement is the availability of adequate industrial country support to underwrite an appropriate package. Like the Baker Plan, the Brady Plan is substantially underfunded.

Better Brazilian economic management will be necessary, not only to qualify for debt reduction, but to permit resumption of sustained economic development. Domestic saving will have to increase. Exports will have to receive continued priority. The public sector deficit will have to be controlled. Debt will continue to severely limit the range of the possible, but this is no excuse for not trying to make the best of a difficult situation.

Appendix: Brazilian Statistics

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Table A.1 Real and Per Capita GDP, 1950–80

Year	Real GDP (Index 1950 = 1)	Population (millions)	Growth Rate GDP	Growth Rate GDP/Capita
1950	1.000	51.9	6.5	4.2
1951	1.059	53.5	5.9	2.8
1952	1.151	55.2	8.7	5.4
1953	1.181	56.9	2.6	-.5
1954	1.299	58.6	10.0	6.8
1955	1.388	60.4	6.8	3.7
1956	1.432	62.2	3.2	.2
1957	1.549	64.1	8.2	5.0
1958	1.669	66.1	7.7	4.4
1959	1.762	68.1	5.6	2.5
1960	1.933	70.2	9.7	6.4
1961	2.132	72.2	10.3	7.3
1962	2.245	74.3	5.3	2.3
1963	2.279	76.4	1.5	-1.3
1964	2.345	78.6	2.9	.0
1965	2.408	80.9	2.7	-.3
1966	2.531	83.2	5.1	2.2
1967	2.652	85.6	4.8	1.9
1968	2.896	88.0	9.2	6.3
1969	3.157	90.5	9.0	6.0
1970	3.419	93.0	8.3	6.2
1971	3.806	95.1	11.3	8.6
1972	4.266	97.4	12.1	9.3
1973	4.863	99.8	14.0	11.2
1974	5.301	102.3	9.0	6.4
1975	5.577	104.9	5.2	2.7
1976	6.123	107.5	9.8	7.1
1977	6.405	110.1	4.6	2.1
1978	6.712	112.8	4.8	2.3
1979	7.196	115.6	7.2	4.6
1980	7.850	118.5	9.1	6.5

Table A.1 (continued)

Year	Real GDP (Index 1950 = 1)	Population (millions)	Growth Rate GDP	Growth Rate GDP/Capita
1981	7.583	121.5	-3.4	-5.7
1982	7.652	124.5	.9	-1.5
1983	7.460	127.6	-2.5	-4.9
1984	7.886	130.7	5.7	3.1
1985	8.540	134.0	8.3	5.6
1986	9.240	137.3	8.2	5.6

Source: *Conjuntura Econômica* and Banco Central do Brasil.

Table A.2 Nominal and Per Capita GDP, 1970-85

Year	GDP at Market Prices (in millions of cruzados)	GDP/Capita (in U.S. dollars)
1970	196.1	453
1971	261.1	517
1972	345.0	594
1973	483.3	787
1974	708.0	1,015
1975	1,009.7	1,180
1976	1,625.1	1,411
1977	2,486.8	1,591
1978	3,621.0	1,786
1979	6,041.0	1,959
1980	12,639.0	2,028
1981	24,737.0	2,192
1982	48,148.0	2,155
1983	118,195.0	1,604
1984	387,968.0	1,619
1985	1,406,077.0	1,694
1986	3,687,473.0	1,977

Source: Banco Central do Brasil.

Table A.3 Sectoral Performance of the Brazilian Economy: Indexes of Real Output (1949 = 100)

Year	Total	Agriculture	Industry	Commerce	Transport & Communication
1950	106.5	101.5	111.3	107.1	109.5
1951	112.8	102.2	118.4	117.5	121.3
1952	122.6	111.5	124.3	121.8	130.0
1953	125.7	111.7	135.1	119.3	143.3
1954	138.4	120.5	146.8	132.6	155.3
1955	147.9	129.8	162.4	137.9	161.3
1956	152.6	126.7	173.6	140.1	169.5
1957	165.0	138.5	183.5	153.6	182.7

(continued)

Table A.3 (continued)

Year	Total	Agriculture	Industry	Commerce	Transport & Communication
1958	177.7	141.3	213.2	164.3	193.9
1959	187.7	148.8	238.5	179.7	212.5
1960	205.9	156.1	261.4	190.3	249.3
1961	227.1	167.9	289.2	203.6	257.6
1962	238.9	177.1	311.8	215.5	279.2
1963	242.7	178.9	312.4	215.6	301.0
1964	249.7	181.3	328.5	218.0	305.8
1965	256.4	206.3	313.0	221.6	311.3
1966	266.1	199.8	349.6	238.6	331.9
1967	278.9	211.1	360.0	249.1	357.8
1968	310.1	214.0	415.8	278.3	389.4
1969	341.1	226.8	460.5	302.7	434.8
1970	369.4	230.2	508.9	327.8	462.6
1971	413.7	256.2	569.9	370.8	509.4
1972	459.6	266.7	644.0	413.0	578.1
1973	522.2	276.3	749.0	466.3	699.5
1974	572.8	299.0	817.9	511.6	821.9
1975	603.7	313.3	866.1	525.4	934.5
1976	662.3	322.4	973.5	563.7	1,070.0
1977	700.1	360.4	1,011.5	590.2	1,170.6
1978	735.1	351.1	1,084.3	615.0	1,283.0
1979	782.1	368.6	1,153.7	648.2	1,461.4
1980	838.4	391.8	1,244.9	692.3	1,608.9
1981	825.0	416.9	1,176.4	672.9	1,612.2
1982	832.4	406.5	1,183.5	678.9	1,702.4
1983	805.8	415.4	110.3	655.2	1,704.2
1984	842.1	432.8	1,168.1	674.9	1,815.0
1985	912.0	470.9	1,273.2	733.6	1,960.2

Source: *Conjuntura Econômica*.

Table A.4 Output Deviations from Trend

Year	Total	Agriculture	Industry
1950	1.77	1.20	-2.31
1951	.93	-2.56	-3.69
1952	2.68	1.70	-6.39
1953	-1.41	-2.56	-5.62
1954	1.64	.57	-4.88
1955	1.69	3.56	-2.35
1956	-1.76	-3.31	-3.25
1957	-.53	1.15	-5.26
1958	.30	-1.29	2.17
1959	-.81	-.57	5.82
1960	1.87	-.23	7.42
1961	5.09	2.61	9.97
1962	3.57	3.50	9.92
1963	-1.44	.07	2.55
1964	-5.17	-3.05	.01
1965	-9.11	5.42	-12.40

Table A.4 (continued)

Year	Total	Agriculture	Industry
1966	-12.00	-2.23	-8.89
1967	-13.90	-1.17	-13.50
1968	-9.84	-4.25	-6.68
1969	-6.89	-2.89	-4.04
1970	-5.51	-5.85	-1.61
1971	-.76	.40	2.15
1972	3.18	-.03	6.81
1973	9.36	-.94	14.30
1974	12.00	2.51	15.60
1975	10.70	2.73	13.70
1976	13.40	1.15	17.90
1977	12.40	7.85	14.10
1978	10.60	.78	13.50
1979	10.30	1.20	12.50
1980	10.60	2.86	12.20
1981	2.44	4.62	-1.03
1982	-3.25	-2.35	-7.99
1983	-13.10	-4.63	-22.60
1984	-15.30	-4.98	-24.40
1985	-13.90	-.99	-23.40

Source: *Projeções Econômicas*, July 1986.

Note: The positive sign indicates production above the normal level; the negative sign indicates production below the normal level.

Table A.5 Investment and Savings Shares in GDP

Year	Gross Investment ^a / GDP	Nonfactor Current Account/GDP	Net Factor Payments/GDP	Net Foreign Savings/GDP	Domestic Savings/GDP
1970	21.5	-.5	-.8	1.3	20.2
1971	21.9	-1.7	-.9	2.6	19.3
1972	22.1	-1.7	-.9	2.6	19.5
1973	22.4	-1.2	-.9	2.1	20.3
1974	23.9	-5.9	-.9	6.8	17.1
1975	25.0	-4.0	-1.4	5.4	19.6
1976	23.3	-2.4	-1.6	4.0	19.3
1977	21.3	-.7	-1.6	2.3	19.0
1978	22.6	-1.2	-2.3	3.5	19.1
1979	22.5	-1.9	-2.7	4.6	17.9
1980	22.4	-2.1	-3.2	5.3	17.1
1981	22.3	-.3	-4.1	4.4	17.9
1982	20.2	-.7	-5.4	6.1	14.1
1983	15.6	2.5	-5.8	3.3	12.3
1984	16.5	5.6	-5.6	.0	16.5
1985	17.3	5.3	-5.4	.1	17.2
1986	19.2	2.3	-4.3	2.0	17.2

Source: *Conjuntura Econômica*.

^aExcept for 1981, 1982, and 1983, gross investment includes changes in stocks.

Table A.6 Population and Labor Force

	1940	1950	1960	1970	1980
Total population (millions)	41.24	51.94	70.19	93.14	119.07
Labor force (millions)	14.76	17.12	22.75	29.56	43.80
Growth rate population	1.5	2.3	3.1	2.9	2.5
Growth rate labor force	—	1.5	2.9	2.7	4.0
Sectoral Distribution of the Labor Force (%)					
		1960	1970	1980	
Agriculture		54.0	44.3	29.9	
Industry		12.9	17.9	24.4	
Service		33.1	37.8	45.7	

Source: Fundação IBGE.

Table A.7 Income Distribution, 1970 and 1980

Percent of Population	Percent of Total Income	
	1970	1980
Poorest 10 percent	.9	.8
20	2.7	2.4
30	5.5	5.0
40	9.3	8.5
50	14.1	13.1
60	20.3	19.0
Richest 30	71.7	73.3
20	61.0	62.7
10	45.2	47.0
5	32.9	34.6
1	15.2	16.4
Income Classes		
	Percent of Labor Force	
up to ¼ Minimum Wage	28.4	12.5
> ½ to 1	32.2	20.8
> 1 to 2	21.7	31.1
> 2 to 5	12.7	23.6
> 5 to 10	3.3	7.2
> 10 to 20	1.3	3.2
more than 20	.4	1.6

Source: Rossi (1986).

Table A.8 Wholesale Price Index, Inflation, and Monetary Correction, 1960-85

Year	Wholesale Price Index (1977 = 100, year average)	Inflation During the Year (%)	ORTN ^a % Change (average over average of previous year)
1962	1.117	51.6	
1963	1.959	75.4	
1964	3.732	90.5	
1965	5.852	56.8	63.0
1966	8.070	37.9	39.2
1967	10.360	28.4	23.2
1968	12.870	24.2	25.0
1969	15.550	20.8	18.5
1970	18.630	19.8	19.6
1971	22.610	21.4	22.7
1972	26.620	17.7	19.8
1973	30.700	15.5	13.7
1974	39.640	35.4	21.3
1975	50.660	27.8	29.7
1976	71.130	40.4	30.1
1977	100.000	40.6	36.1
1978	138.900	38.9	32.0
1979	215.800	55.4	40.1
1980	451.500	109.2	50.0
1981	961.900	113.0	73.3
1982	1,866.100	94.0	93.1
1983	4,942.900	164.9	131.1
1984	16,453.500	232.9	194.4
1985	53,202.400	223.3	220.4
1986	128,909.415	142.3	130.0

Source: *Conjuntura Econômica*.

^aObrigações Reajustáveis do Tesouro Nacional.

Table A.9 Nominal Wages (cruzados/month, and indexes)

Year	Minimum Wage (1)	Industry Median (2)	Industry Average (3)	Industry Average Index (4)	Rural São Paulo (5)	Rural Wage CEA Index (6)	Industry ADBIB (7)	Industry FIESP Index (8)
1962	.01344	.01670	.01620		.00669			
1963	.02100	.02700	.03440		.01086			
1964	.04200	.04720	.06580		.02292			
1965	.06600	.07910	.09970		.04110			
1966	.08400	.11000	.13820		.05340			
1967	.10500	.15800	.18490		.07470			
1968	.12900	.17200	.23710		.09870			
1969	.15600	.21600	.30000		.11910			
1970	.18720	.26200	.37800		.15420			
1971	.22560	.31700	.46740		.19350			
1972	.25440	.46900	.58980		.25140	16.1	.00135	
1973	.29760	.65700	.72690		.34050	22.5	.00167	

(continued)

Table A.9 (continued)

Year	Minimum Wage (1)	Industry Median (2)	Industry Average (3)	Industry Average Index (4)	Rural São Paulo (5)	Rural Wage CEA Index (6)	Industry ADBIB (7)	Industry FIESP Index (8)
1974	.35840	.87900	.95040		.47550	36.3	.00217	
1975	.39360	1.16300	1.35240	4.5	.61950	49.1	.00307	27.0
1976	.68960			6.6	.83550	68.3	.00461	43.0
1977	.99360			10.0		100.0	.00689	64.0
1978	1.40880			15.1		137.0	.01005	100.0
1979	2.14280			23.8		217.0	.01558	161.0
1980	4.01720			45.6		445.0	.02994	314.0
1981	8.15000			100.0		902.0	.06679	620.0
1982	16.20800			215.6		1644.0	.14820	1,248.0
1983	34.76400			478.3		3707.0	.33230	2,534.0
1984	95.38800			1,384.4		11201.0	.91440	7,371.0
1985	322.08000			4,800.0			3.22210	27,205.0

Sources: Columns (1), (6), (7), and (8), *Conjuntura Econômica*. Column (2), Bacha (1981). Column (4), Fundação IBGE. Column (5), Bacha (1981).

Notes: Column (1), weighted average during the year of the highest minimum wages. Legislation gradually united minimum wages paid in the different regions of the country.

Table A.10 Real Wages

Year	Minimum Wage	Industry Median	Industry Average	Industry FIBGE ^a	Rural São Paulo	Rural (CEA)	Industry (FIESP)
1962	154.87	65.1	54.33		48.97		
1963	139.97	60.0	65.77		45.33		
1964	144.86	55.1	66.04		50.22		
1965	145.17	58.9	63.82		57.43		
1966	133.97	59.4	64.15		54.11		
1967	130.45	66.4	66.85		58.96		
1968	129.60	58.2	69.01		62.71		
1969	129.13	60.5	72.27		62.63		
1970	129.33	61.3	76.00		67.78		
1971	128.42	61.1	77.43		69.98		
1972	123.00	76.8	82.99		77.23	60.59	
1973	124.76	93.3	88.69		90.69	73.13	
1974	116.37	96.6	89.81		98.09	91.57	
1975	100.00	100.0	100.00	100.00	100.00	96.96	72.60
1976	124.79			104.49	96.05	96.06	83.70
1977	127.89			112.36		100.00	89.10
1978	130.56			122.47		98.63	100.00
1979	127.82			123.59		100.56	107.70
1980	114.52			113.48		48.56	116.70
1981	109.06			116.85		93.77	122.20
1982	111.79			130.34		88.98	125.10
1983	90.53			108.99		75.00	109.70
1984	74.62			94.38		68.08	112.90
1985	77.93			101.12			138.80

Source: Table A.9 deflated by wholesale prices.

^aFundação Instituto Brasileiro de Geografia e Estatística.

Table A.11 Price Indexes

Year	CPI (R.J.) (1977 = 100)	Industrial Goods (1977 = 100)	Agricultural Goods (1977 = 100)	Construction Costs	
				R.J. (Mar.86 = 100)	Brazil (SINAPI) (Dec.73 = 100)
1959	.3816	.4799			
1960	.4935	.5908	.477		
1961	.6575	.8389	.643		
1962	.9962	1.2200	1.029		
1963	1.7010	2.2300	1.702		
1964	3.2560	4.0940	3.397		
1965	5.4010	6.6040	4.837		
1966	7.6300	8.7400	6.862		
1967	9.9600	10.9780	8.544		
1968	12.2000	14.3150	10.024		
1969	15.4000	17.2600	12.180	.0186	
1970	18.8800	20.1650	14.390	.0217	
1971	22.6900	23.7000	18.000	.0254	
1972	26.4500	27.5000	22.020	.0298	
1973	29.8000	31.6100	26.260	.0355	100.0
1974	38.0300	40.9000	33.890	.0460	149.6
1975	49.0400	52.8300	42.060	.0580	189.5
1976	69.5700	71.8500	66.890	.0910	278.2
1977	100.0000	100.0000	100.000	.1150	373.6
1978	138.7000	135.3000	142.400	.1810	504.4
1979	211.8000	210.5000	222.500	.2950	832.5
1980	387.2000	428.8000	472.700	.4690	1,818.7
1981	795.9000	898.6000	966.400	.9390	3,102.4
1982	1,575.7000	1,804.2000	1,691.000	1.8600	6,550.5
1983	3,812.9000	4,379.4000	5,602.600	4.0830	10,421.8
1984	11,314.5000	14,196.5000	20,070.200	12.0500	29,062.3
1985	36,994.7000	46,169.4000	67,693.700	42.6500	95,626.9

Source: Conjuntura Econômica.

Table A.12 Indexes of Export Prices (dollar prices, 1977 = 100)

Year	Total	Total			Industrialized	
		Except Coffee	Coffee	Minerals	Goods	Primary Goods
1960	31.04	37.84	15.65	68.5	28.2	23.3
1961	32.60	41.96	15.46	68.0	29.7	23.2
1962	28.44	33.64	14.49	65.4	29.5	21.6
1963	28.34	34.50	14.17	58.8	33.3	21.5
1964	33.93	36.30	18.80	50.4	36.6	26.2
1965	34.26	35.18	19.31	51.6	32.9	27.2
1966	32.83	37.39	16.76	52.1	34.3	24.9
1967	32.76	40.09	15.56	49.1	33.6	23.2
1968	32.33	38.59	15.49	45.6	34.6	23.8
1969	33.27	39.71	15.94	45.1	36.3	25.8
1970	37.59	40.82	21.69	48.1	38.3	30.5
1971	36.28	43.67	16.59	49.0	42.5	26.3
1972	40.98	47.76	21.02	47.8	47.5	31.4
1973	56.39	66.94	25.81	51.0	67.1	43.0
1974	71.05	86.12	27.98	61.1	94.3	46.3

(continued)

Table A.12 (continued)

Year	Total	Total			Industrialized	
		Except Coffee	Coffee	Minerals	Goods	Primary Goods
1975	71.05	87.76	24.30	83.2	93.5	42.7
1976	81.95	87.76	60.09	96.2	89.3	69.5
1977	100.00	100.00	100.00	100.0	100.0	100.0
1978	92.00	98.00	69.70	91.2	100.0	75.0
1979	101.00	107.80	74.80	95.0	112.0	78.9
1980	107.00	116.60	70.40	109.3	122.1	72.1
1981	100.70	115.10	40.80	112.3	120.2	49.2
1982	94.60	105.90	46.50	121.0	109.2	50.4
1983	89.50	98.90	49.70	112.9	101.4	52.9
1984	91.30	100.00	55.20	100.0	103.1	60.4
1985	86.10	94.50	50.90	99.8	98.0	53.2

Source: *Conjuntura Econômica*.

Table A.13 Indexes of Import Prices (dollar prices, 1977=100)

Year	Total	Oil	Wheat	Total Imports Except
				Oil & Wheat
1960	38.26	6.67	63.22	
1961	38.91	8.86	66.21	52.2116
1962	39.23	11.69	66.21	51.4963
1963	40.16	12.18	68.16	51.9082
1964	38.91	12.70	72.05	53.6835
1965	39.03	12.03	65.56	54.3170
1966	40.28	13.32	63.48	54.4690
1967	41.17	12.39	66.21	51.6203
1968	42.38	14.70	62.57	51.4912
1969	41.57	15.71	61.99	52.1658
1970	42.37	16.08	58.48	53.5533
1971	44.07	20.26	65.50	51.6897
1972	47.03	22.19	70.76	53.9123
1973	58.90	27.81	114.60	62.9156
1974	90.68	92.60	196.50	83.6086
1975	93.64	93.57	152.60	87.7054
1976	96.19	96.14	143.30	94.6253
1977	100.00	100.00	100.00	100.0000
1978	107.00	101.00	124.60	108.9700
1979	128.00	135.20	154.80	112.4820
1980	163.90	226.30	198.60	133.6160
1981	182.10	270.00	198.30	139.8900
1982	176.10	260.50	181.20	136.2900
1983	166.80	235.30	172.90	136.9700
1984	158.40	229.40	155.20	
1985	149.20	222.40	146.90	

Source: *Conjuntura Econômica*. Column (4): Fundação Getúlio Vargas, unpublished data.

Table A.14 Terms of Trade, 1960–85

Year	Terms of Trade
1960	81
1961	84
1962	72
1963	70
1964	87
1965	88
1966	81
1967	79
1968	83
1969	80
1970	89
1971	82
1972	87
1973	95
1974	78
1975	76
1976	85
1977	100
1978	86
1979	79
1980	65
1981	55
1982	54
1983	53
1984	58
1985	57

Source: Banco Central do Brasil.

Table A.15 Indexes of Subsidies Given to Exports

Year	Fiscal Subsidies	Fiscal & Credit Subsidies
1963	1.000	1.000
1964	1.004	1.004
1965	1.050	1.005
1966	1.050	1.050
1967	1.219	1.213
1968	1.265	1.262
1969	1.316	1.340
1970	1.389	1.438
1971	1.413	1.475
1972	1.423	1.485
1973	1.430	1.505
1974	1.470	1.525
1975	1.491	1.623
1976	1.493	1.740
1977	1.506	1.715

(continued)

Table A.15 (continued)

Year	Fiscal Subsidies	Fiscal & Credit Subsidies
1978	1.487	1.730
1979	1.464	1.670
1980	1.381	1.585
1981	1.442	1.655
1982	1.400	1.666
1983	1.400	1.628

Sources: Cardoso (1980), Musalem (1981), and Braga and Markwald (1983).

Table A.16a Effective Rates of Protection by Sector: 1958–67

	1958	1963	1966	1967 ^a	1967 ^b
Agriculture					
Vegetable products	-47	-15	-13	-14	-14
Animal products	24	12	16	18	N.A.
Mining	-5	34	24	13	9
Nonmetallic minerals	73	130	72	45	48
Metals	61	124	63	35	33
Machinery	22	68	30	32	31
Electrical & communication equipment	83	169	112	67	57
Transportation equipment	82	147	103	84	81
Wood products	138	176	120	81	44
Furniture	221	367	251	90	92
Paper products	86	169	91	43	42
Rubber products	139	221	158	126	182
Leather products	248	405	174	127	84
Chemicals	56	146	56	29	20
Pharmaceuticals	17	60	10	10	10
Perfumery & cosmetics	279	453	281	121	74
Plastic products	281	489	332	133	117
Textiles	239	298	232	162	88
Clothing & footwear	264	481	321	107	154
Food products	502	6,778	423	252	71
Beverages	171	243	183	104	76
Tobacco products	273	469	299	114	79
Printing & publishing	139	305	142	4	8
Miscellaneous industry	88	175	95	47	45
All sectors (wtd. by 1959 value added)	29.7	75.2	43.7	24.2	13.9
Industry	106.1	183.5	108.0	63.3	47.8
Consumer goods	242.0	359.9	230.1	122.2	65.7
Intermediates	64.9	130.6	68.0	40.3	38.5
Capital goods	53.0	112.5	69.1	55.7	52.4

Source: Fishlow (1975).

^aBased on 1959 input-output table.

^bBased on 1971 input-output table.

Table A.16b Effective Rates of Protection by Sector: 1966-73

	June 1966	April 1967	November 1973
Agriculture			25
Vegetable products	35	8	
Animal products	164	17	
Mining	25	13	14
Nonmetallic minerals	86	39	46
Metals	58	36	35
Machinery	41	32	32
Electrical & communication equipment	215	97	61
Transportation equipment	151	75	34
Wood products	45	25	68
Furniture	239	124	74
Paper products	118	59	50
Rubber products	136	116	66
Leather Products	117	85	81
Chemicals	59	42	19
Pharmaceuticals	39	35	17
Perfumery & cosmetics	8,480	3,670	46
Plastic products	183	58	41
Textiles	379	162	118
Clothing & footwear	337	142	293
Food products	87	40	83
Beverages	447	173	114
Tobacco products	313	124	83
Printing & publishing	142	67	30
Miscellaneous industry	128	72	37
Average industry	181	76	47

Sources: 1966 and 1967 estimates from Bergsman (1970). 1973 estimates from Tyler (1976).

Table A.16c Effective Protection Estimates at the Two-Digit Level, 1980-81 (in percentages)

Industry	Effective Protection	Net Effective Protection
Mining	-4.3	-18.0
Nonmetallic minerals	-19.6	-31.1
Metals	34.2	15.0
Machinery	77.0	51.7
Electrical & communication equipment	111.9	81.6
Transportation equipment	-9.6	-22.5
Lumber & wood products	17.7	0.9
Furniture	52.7	30.8
Paper products	-18.5	-30.2
Rubber products	-21.4	-32.6
Leather products	13.9	-2.4
Chemicals	86.4	59.7
Pharmaceuticals	116.3	85.3
Perfumery & cosmetics	91.6	64.2
Plastic products	28.3	9.9
Textiles	36.7	17.1
Clothing & footwear	46.7	25.7

(continued)

Table A.16c (continued)

Industry	Effective Protection	Net Effective Protection
Food products	26.1	8.1
Beverages	- 1.1	- 15.3
Tobacco	5.7	- 9.4
Printing & publishing	31.9	13.0
Miscellaneous industry	171.7	132.8
Averages ^a		
Primary agriculture ^b	- 8.2	- 21.3
Manufacturing	43.6	23.1
Capital goods	59.6	36.8
Intermediate goods	42.0	21.7
Consumer goods	35.7	16.3

Source: World Bank (1983).

^aValue-added weights of 1979 are used for aggregating from the four-digit to the two-digit level and for computing the more aggregated means.

^bIncludes forestry & fishing, agriculture, and livestock & poultry.

Table A.17 Nominal Exchange Rates, Cruzeiros/U.S. Dollars (yearly average, sale rate)

Year	Official Rate	Black Rate
1960	.190	
1961	.270	
1962	.390	.520
1963	.580	.890
1964	1.250	1.530
1965	1.900	1.930
1966	2.220	2.220
1967	2.660	2.880
1968	3.396	3.710
1969	4.074	4.440
1970	5.594	5.010
1971	5.288	5.880
1972	5.934	6.570
1973	6.126	6.550
1974	6.790	7.450
1975	8.126	9.375
1976	10.670	13.525
1977	14.128	16.917
1978	18.063	21.717
1979	26.870	32.592
1980	52.700	58.417
1981	93.100	108.675
1982	179.500	271.250
1983	577.040	926.250
1984	1,848.030	2,214.200
1985	6,205.250	8,455.000
1986 June (cruzados)	13.840	21.000

Sources: *Conjuntura Econômica*, Pechman (1984), and *Projeções Econômicas*.

Table A.18 Real Exchange Rates (1977 = 1)

Year	(1)	(2)	(3)	(4)	(5)	(6)
1965	.898				1.423	2.561
1966	1.034				1.620	2.659
1967	1.124				1.732	2.463
1968	1.083				1.718	2.366
1969	1.050		.937	1.328	1.648	2.122
1970	1.059	1.218	.936	1.311	1.620	1.951
1971	1.059	1.168	.932	1.227	1.479	1.732
1972	1.027	1.126	.942	1.177	1.380	1.610
1973	.952	1.092	.977	1.176	1.085	1.244
1974	.929	1.067	.978	1.180	.901	1.024
1975	.925	1.034	.955	1.199	.986	1.049
1976	.969	1.025	1.101	1.183	1.056	1.049
1977	1.000	1.000	1.000	1.000	1.000	1.000
1978	.896	.916	1.105	1.105	1.056	1.049
1979	.819	.815	1.153	1.153	.986	1.024
1980	.766	.714	.951	.863	.944	1.024
1981	.929	.866	.909	.845	1.127	1.195
1982	.981	.941	.896	.956	1.296	1.341
1983	.812	.723	.811	.634	1.056	1.122
1984	.849	.723	.738	.522	1.056	N.A.
1985	.837	.714	.803	.549	1.040	N.A.

Sources: Column (1): domestic wholesale prices/weighted average of wholesale prices of main trade partners (IMF, *International Financial Statistics*). Column (2): effective exchange rate (Morgan Guaranty Trust Co.). Column (3): construction prices/industrial prices (*Conjuntura Econômica*). Column (4): construction prices/agricultural prices (*Conjuntura Econômica*). Column (5): industrial prices/prices of manufactured exports in dollars multiplied by the exchange rate (*Conjuntura Econômica*). Column (6): same as (5), but including subsidies.

Table A.19 **Balance of Payments (in millions of U.S. dollars)**

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
Trade balance	425	68	-286	424	148	320	437	107	65	72	-23	113
Exports	1,359	1,771	1,416	1,540	1,558	1,419	1,483	1,392	1,244	1,282	1,270	1,405
Imports	-934	-1,703	-1,702	-1,116	-1,410	-1,099	-1,046	-1,285	-1,179	-1,210	-1,293	-1,292
Net services	-283	-469	-336	-355	-338	-308	-369	-358	-309	-373	-459	-350
Capital services	-74	-90	-36	-127	-97	-78	-91	-93	-89	-116	-155	-145
Other	-209	-379	-300	-228	-241	-230	-278	-265	-220	-257	-304	-205
Unilateral transfers	-2	-2	-2	-14	-5	-10	-11	-13	-4	-10	4	15
Current account	140	-403	-624	55	-195	2	57	-264	-248	-311	-478	-222
Capital account	-65	-11	35	59	-18	3	151	255	184	182	58	288
Net foreign direct investment	3	-4	9	22	11	43	89	143	110	124	99	108
Loans and financial flows	28	38	35	44	109	84	231	319	373	439	348	579
Amortization	-85	-27	-33	-46	-134	-140	-187	-242	-324	-377	-417	-327
Other	-11	-18	24	39	-4	16	18	35	25	-4	28	-72
Errors and omissions	-23	123	-26	-98	10	12	-14	-171	-189	-25	10	49
Balance of payments	52	-291	-615	16	-203	17	194	-180	-253	-154	-410	115

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Trade balance	-89	112	344	655	438	213	26	318	232	-341	-244	7
Exports	1,215	1,406	1,430	1,596	1,741	1,654	1,881	2,311	2,739	2,904	3,991	6,199
Imports	-1,304	-1,294	-1,086	-941	-1,303	-1,441	-1,855	-1,993	-2,507	-3,245	-4,235	-6,192
Net services	-339	-269	-359	-362	-463	-527	-556	-630	-815	-980	-1,250	-1,722
Capital services	-136	-87	-131	-174	-197	-257	-228	-261	-353	-420	-520	-712
Other	-203	-182	-228	-188	-266	-270	-328	-369	-462	-560	-730	-1,010
Unilateral transfers	39	43	55	75	79	77	22	31	21	14	5	27
Current account	-389	-114	40	368	54	-237	-508	-281	-562	-1,307	-1,489	-1,688
Capital account	181	-54	82	-6	124	27	541	871	1,015	1,846	3,942	3,512
Net foreign direct investment	69	30	28	70	74	76	61	177	132	168	318	940
Loans and financial flows	325	250	221	363	508	530	583	1201	1,510	2,523	4,320	4,299
Amortization	-310	-364	-277	-304	-350	-444	-484	-493	-672	-850	-1,202	-1,673
Other	97	30	110	-135	-108	-135	381	-14	45	5	56	-54
Errors and omissions	-138	-76	-218	-31	-25	-35	-1	-41	92	-9	436	355
Balance of payments	-346	-244	-96	331	153	-245	32	549	545	530	2,439	2,179

(continued)

Table A.19 (continued)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Trade balance	-4,690	-3,540	-2,147	97	-1,024	-2,840	-2,823	1,202	780	6,470	13,090	12,471
Exports	7,951	8,670	10,130	12,120	12,659	15,244	20,132	23,293	20,175	21,899	27,005	25,639
Imports	-12,641	-12,210	-12,277	-12,023	-13,683	-18,084	-22,955	-22,091	-19,395	-15,429	-13,915	-13,168
Net services	-2,433	-3,162	-3,919	-4,134	-6,037	-7,920	-10,152	-13,135	-17,083	-13,415	-13,215	-12,893
Capital services	-901	-1,733	-2,422	-2,559	-4,232	-5,542	-7,032	-10,272	-13,494	-11,008	-11,471	-11,191
Other	-1,532	-1,429	-1,497	-1,575	-1,805	-2,378	-3,120	-2,863	-3,589	-2,407	-1,744	-1,702
Unilateral transfers	1	2	4	0	71	18	168	199	-8	108	171	155
Current account	-7,122	-6,700	-6,062	-4,037	-6,990	-10,742	-12,807	-11,734	-16,311	-6,837	45	-268
Capital account	6,254	6,189	6,867	5,269	11,891	7,717	9,679	12,773	7,851	2,103	253	-2,729
Net foreign direct investment	887	892	1,010	810	2,047	2,212	1,532	2,326	2,547	1,359	1,549	1,253
Loans and financial flows	7,355	7,483	7,921	8,727	15,388	11,288	13,315	16,783	12,451	7,778	8,768	5,614
Amortization	-1,920	-2,172	-2,888	-4,060	-5,324	-6,385	-5,010	-6,242	-6,952	-6,863	-6,468	-8,890
Other	-68	-14	824	-208	-220	602	-158	-94	-195	-171	-3,596	-706
Errors and omissions	-68	-439	387	-602	-639	-130	-343	-414	-368	-670	403	-529
Balance of payments	-936	-950	1,192	630	4,262	-3,155	-3,471	625	-8,828	-5,405	700	-3,526

Source: Banco Central do Brasil.

Table A.20 Composition of Exports, 1960-85 (value of exports in millions of U.S. dollars)

Year	Total Exports	Industrialized Products ^a	Coffee	Minerals	Primary Goods ^b
1960	1,270		712.7	86.94	470.36
1961	1,405		710.4	94.57	600.03
1962	1,215		642.7	99.23	473.07
1963	1,406		748.5	97.45	560.05
1964	1,430	209.0	759.9	101.62	359.48
1965	1,596	293.7	707.4	135.66	459.24
1966	1,741	287.4	773.5	133.09	547.01
1967	1,654	319.5	733.0	123.55	477.95
1968	1,881	366.8	797.3	136.16	580.74
1969	2,311	482.3	845.7	177.55	805.45
1970	2,739	647.1	981.8	262.10	848.00
1971	2,904	865.7	822.2	295.26	920.84
1972	3,991	1,198.7	1,057.1	287.81	1,447.39
1973	6,199	2,002.8	1,344.2	411.86	2,440.14
1974	7,951	2,974.9	980.4	665.92	3,329.78
1975	8,670	3,232.9	934.2	1,088.61	3,414.29
1976	10,130	3,619.6	2,398.2	1,109.84	3,002.36
1977	12,120	4,649.4	2,625.0	971.00	3,874.60
1978	12,651	6,179.0	2,294.7	1,086.72	3,090.58
1979	15,244	8,166.4	2,326.2	1,367.77	3,383.63
1980	20,132	10,964.0	2,773.0	1,701.42	4,963.58
1981	23,293	13,646.0	1,761.0	1,980.87	5,905.13
1982	20,175	11,361.1	2,113.1	2,005.98	4,694.82
1983	21,899	13,415.6	2,347.0	1,681.76	4,454.64
1984	27,005	18,215.1	2,856.0	1,674.40	4,259.50
1985	25,639	17,101.1	2,632.5	1,795.70	4,110.70

^aIncludes special transactions.

^bIn 1960, 1961, 1962, and 1963, includes manufactures.

Table A.21 Real Exports (in 1977 U.S. dollars)

Year	Industrial Goods	Coffee	Minerals	Primary Goods	Total
1960		4,553.99	126.92	2,018.71	6,699.62
1961		4,695.08	139.07	2,586.34	7,420.49
1962		4,435.47	151.73	2,190.14	6,777.34
1963		5,282.29	165.73	2,604.88	8,052.90
1964	571.04	4,042.02	201.63	1,372.06	6,186.75
1965	892.71	3,663.39	262.91	688.38	6,507.39
1966	837.90	4,615.16	255.45	2,196.83	7,905.34
1967	950.89	4,710.80	251.63	2,060.13	7,973.45
1968	1,060.12	5,147.19	298.60	2,440.08	8,945.99
1969	1,328.65	5,305.52	393.68	3,121.90	10,149.75
1970	1,689.56	4,526.51	544.91	2,780.33	9,541.31
1971	2,036.94	4,956.00	602.57	3,501.29	11,096.80
1972	2,523.58	5,029.02	602.11	4,609.52	12,764.23
1973	2,984.80	5,208.06	807.57	5,674.74	14,675.17
1974	3,154.72	6,503.93	1,089.89	7,191.75	14,940.29
1975	3,457.65	3,844.44	1,308.43	7,996.00	16,606.52

(continued)

Table A.21 (continued)

Year	Industrial Goods	Coffee	Minerals	Primary Goods	Total
1976	4,053.30	3,991.01	1,153.68	4,319.94	13,517.93
1977	4,649.40	2,625.00	971.00	3,874.60	12,120.00
1978	6,179.00	3,292.25	1,191.58	4,120.77	14,783.60
1979	7,291.43	3,109.89	1,439.76	4,288.50	16,129.58
1980	8,758.39	3,938.92	1,556.65	6,884.30	21,138.26
1981	11,352.75	4,316.18	1,763.91	12,002.30	29,435.14
1982	10,403.94	4,544.30	1,657.83	9,315.12	25,921.19
1983	13,230.37	4,722.33	1,489.60	8,420.87	27,863.17
1984	17,667.41	5,173.91	1,674.40	7,052.15	31,567.87

Source: Banco Central do Brasil and *Conjuntura Econômica*.

Table A.22 **Composition of Imports, 1960-85 (import values in millions of US dollars, f.o.b.)**

Year	Total Imports	Oil & Derivatives	Wheat
1960	1,293	194.6	122
1961	1,292	190.6	117
1962	1,304	191.9	139
1963	1,294	192.8	139
1964	1,086	176.6	176
1965	941	154.0	114
1966	1,303	165.8	142
1967	1,441	153.6	153
1968	1,855	204.0	168
1969	1,993	203.8	135
1970	2,507	236.1	104
1971	3,247	326.9	107
1972	4,232	409.2	122
1973	6,192	710.8	334
1974	12,642	2,840.1	468
1975	12,210	2,875.4	325
1976	12,383	3,612.5	504
1977	12,023	3,813.9	260
1978	13,683	4,195.8	541
1979	18,084	6,434.4	545
1980	22,955	9,844.3	890
1981	22,091	11,005.8	832
1982	19,395	10,120.2	762
1983	15,429	8,179.0	727
1984	13,916	6,866.6	755
1985	13,168	5,693.6	762

Source: Banco Central do Brasil.

Table A.23 Real Imports (in 1977 U.S. dollars)

Year	Oil	Wheat	Others	Total
1961	2,151.2	176.7	1,885.40	4,213.30
1962	1,641.6	209.9	1,889.65	3,741.15
1963	1,582.9	203.9	1,853.66	3,640.46
1964	1,390.6	244.3	1,366.16	3,001.06
1965	1,280.1	173.9	1,239.02	2,693.02
1966	1,244.7	223.7	1,827.09	3,295.49
1967	1,239.7	231.1	2,197.59	3,668.39
1968	1,387.8	268.5	2,880.10	4,536.40
1969	1,297.3	217.8	3,171.04	4,686.14
1970	1,468.3	177.8	4,046.25	5,692.35
1971	1,613.5	163.4	5,442.28	7,219.18
1972	1,844.1	172.4	6,864.48	8,880.98
1973	2,555.9	291.4	8,181.12	11,028.42
1974	3,067.1	238.2	11,163.80	14,469.10
1975	3,073.0	213.0	10,272.57	13,558.57
1976	3,757.5	351.7	8,736.04	12,845.24
1977	4,081.0	279.0	7,949.10	12,023.0
1978	4,438.6	563.4	8,209.78	12,787.9
1979	5,009.6	635.0	9,872.34	14,128.1
1980	4,507.3	624.9	9,146.14	14,005.5
1981	4,199.6	542.6	7,329.47	12,128.0
1982	4,014.2	468.0	6,246.09	11,014.2
1983	3,657.9	523.4	4,762.36	9,249.4
1984	3,213.2	538.0	n.a.	8,798.6
1985	2,777.0	497.6	n.a.	8,839.8

Source: *Conjuntura Econômica*.

n.a. = not available.

Table A.24 Domestic Production of Oil (in thousands of tons)

Year	Oil	Year	Oil
1959	3,181	1972	8,233
1960	3,991	1973	8,372
1961	4,692	1974	8,727
1962	4,511	1975	8,459
1963	4,891	1976	8,225
1964	4,602	1977	8,166
1965	4,756	1978	8,166
1966	5,827	1979	8,412
1967	7,315	1980	9,199
1968	8,062	1981	10,822
1969	8,621	1982	12,998
1970	8,209	1983	16,676
1971	8,389	1984	23,195

Source: Banco Central do Brasil.

Table A.25 Industrial Product and Employment

Year	Real Industrial Product	Industrial Employment (FIESP)	Hours Worked (FIESP)
1965	63.0		
1966	69.2		
1967	71.3		
1968	80.8		
1969	90.6		
1970	100.0		
1971	112.0		
1972	126.5		
1973	147.0		
1974	160.6		
1975	170.1	89.7	88.4
1976	191.2	95.5	94.6
1977	198.7	97.3	93.9
1978	213.1	100.0	100.0
1979	226.7	103.5	103.6
1980	244.6	107.3	108.3
1981	231.2	99.9	95.0
1982	232.5	95.0	89.3
1983	216.8	87.6	80.4
1984	229.6	87.4	83.6
1985	250.3	98.4	95.5

Source: *Conjuntura Econômica*.

Table A.26 Monetary Aggregates (in millions of cruzados)

Year ^a	Base	M1	M4
1960	.361	.6519	.74
1961	.579	.9940	1.10
1962	.952	1.6310	1.78
1963	1.619	2.6850	2.91
1964	2.890	4.8750	5.27
1965	4.990	8.7500	9.78
1966	6.142	9.9590	12.13
1967	8.035	14.5100	18.56
1968	11.410	20.1700	26.32
1969	14.690	26.7400	36.83
1970	17.160	33.6400	52.00
1971	23.390	44.5000	73.00
1972	27.700	61.6000	113.00
1973	40.800	90.5000	167.00
1974	54.200	120.8000	235.00
1975	73.900	172.4000	370.00
1976	110.800	236.5000	575.00
1977	166.900	325.2000	857.00
1978	241.800	462.7000	1,312.00
1979	445.900	803.1000	2,121.00
1980	699.500	1,367.0000	3,662.00
1981	1,188.100	2,558.5000	8,820.00
1982	2,225.400	4,222.0000	18,362.00
1983	4,367.400	8,231.9000	45,998.00
1984	15,015.100	24,985.0000	182,040.00
1985	45,468.800	106,975.0000	732,442.00

Source: Banco Central do Brasil.

^aEnd of year.

Table A.27 Interest Rates (CDB: one month, yield per year)

Year	Gross Nominal (1)	Net of Taxes Nominal (2)	Real Net of Taxes (3)
1974	.1610	.1610	-.1814
	.1685	.1685	-.2179
	.1693	.1693	-.0127
	.1829	.1829	-.0406
1975	.2103	.2103	-.0515
	.1971	.1971	-.0556
	.2209	.2209	-.0814
	.2901	.2901	-.0115
1976	.3092	.3092	-.1458
	.3607	.3607	-.0740
	.4144	.4144	-.0944
	.4410	.4410	.1134
1977	.4618	.4618	-.0519
	.3409	.3409	-.0713
	.4242	.4242	.1626
	.3622	.3622	.0163
1978	.4261	.4261	-.0105
	.4412	.3804	-.0756
	.3868	.4276	.0380
	.5223	.4874	.1308
1979	.5096	.5096	-.0928
	.4098	.4098	-.0337
	.3529	.3529	-.3247
	.3255	.3255	-.3426
1980	.3783	.3783	-.2864
	.2669	.2669	-.3688
	.4338	.4338	-.3453
	.6297	.6297	-.2701
1981	.7845	.7845	-.2445
	.7750	.7750	-.0522
	.8910	.8910	-.0142
	1.0220	1.0220	.2008
1982	1.0140	1.0140	-.0840
	1.0109	1.0109	-.0481
	1.1814	1.1814	.1977
	1.4755	1.4755	.3297
1983	1.4408	1.4408	-.0839
	2.3881	2.3881	.1947
	2.0649	1.9270	-.2454
	1.9029	1.7867	-.0542
1984	2.5779	2.4078	.0037
	2.1133	1.9809	.0576
	2.6356	2.4613	.0525
	2.7063	2.5261	.0078
1985	3.3391	3.1052	.0810
	2.9073	2.7099	.5436
	2.0640	1.9353	-.0935
	2.7062	2.5249	-.1115
1986	3.4295	3.1647	-.1432
	.1656	.1585	.1449

Source: Banco Icatu.

Table A.28 Different Measures of the Budget Deficit as a Share of GDP

Year	Increase in Total Debt/GDP	Deficit Corrected for Inflation/GDP	FGV Measure ^a /GDP	PSBR ^b /GDP	Operational Deficit ^c /GDP
1982	25.9	8.4	3.7	15.8	6.6
1983	60.5	15.2	4.1	19.9	3.0
1984	60.7	4.6	4.7	23.3	2.7
1985	65.6	6.1	N.A.	27.8	4.3

Source: Cardoso and Reis (1986) and Banco Central do Brasil, *Brasil: Programa Economico*, February 1987.

^aCalculated on cash-flow basis, excludes the monetary authorities' deficit.

^bPublic Sector Borrowing Requirements: calculated on accrual basis, excludes the monetary authorities' deficit.

^cSubtracts monetary correction from PSBR.

Table A.29 Share of Taxes in GDP (in percentages)

Year	Direct Taxes (1)	Indirect Taxes (2)	Total (3)	Transfers			Net Taxes (7)
				Total (4)	Government Interest Payments (5)	Subsidies (6)	
1970	9.1	16.6	25.7	9.1	1.2	.0	15.5
1971	9.5	15.5	25.8	8.2	2.3	.0	16.0
1972	10.5	15.6	26.1	8.6	1.2	.7	16.0
1973	10.9	15.6	26.5	8.3	1.2	1.2	17.0
1974	10.7	15.5	26.4	7.5	1.1	2.0	16.6
1975	11.0	14.4	26.2	8.2	1.2	2.0	15.2
1976	11.7	13.6	25.3	8.6	1.1	1.4	15.1
1977	12.2	13.4	25.6	9.2	1.9	1.5	14.9
1978	11.0	12.7	24.7	9.0	2.0	1.0	13.1
1979	11.0	11.5	23.3	9.0	2.0	1.0	12.2
1980	10.1	12.8	23.2	9.0	1.0	3.5	10.7
1981	11.2	12.4	23.6	10.0	2.2	2.6	11.0
1982	12.6	12.5	25.1	11.3	.0	2.5	10.8
1983	11.9	12.5	24.4	12.3	4.3	2.3	9.0
1984	11.1	10.4	21.5	13.4	5.0	1.5	6.4

Source: *Conjuntura Econômica*.

Table A.30 Net Debt of the Public Sector (in millions of cruzados)

Year	Internal				External				Total
	Federal Government and Central Bank (1)	State and Local Governments (2)	Public Enterprises (3)	Total (1) + (2) + (3) (4)	Federal Government and Central Bank (5)	State and Local Governments (6)	Public Enterprises (7)	Total (5) + (6) + (7) (8)	(4) + (8) (9)
December 1981	919	1,052	1,824	3,795	1,405	273	3,051	4,729	8,524
December 1982	1,961	2,879	4,832	9,672	3,942	755	7,374	12,071	21,743
December 1983	8,387	8,831	16,839	34,057	26,673	2,951	31,064	60,688	94,745
December 1984	47,255	29,315	54,335	130,905	81,760	11,053	106,895	199,708	330,613
December 1985	176,724	110,120	214,568	501,412	269,801	49,371	410,730	729,902	1,231,314
December 1986	251,143	192,357	379,618	823,118	554,836	77,105	557,928	1,189,869	2,012,987

Source: Banco Central do Brasil.

Table A.31 Brazilian Foreign Debt and Reserves (in billions of U.S. dollars)

Year	Medium- and Long-Term (1)	Short-Term (2)	Total Debt (1) + (2)	Gross Reserves	Reserves Net of Liabilities of Monetary Authorities
1965	3.644		3.644	.483	-.777
1966	3.666		3.666	.421	.412
1967	3.281		3.281	.198	-.617
1968	3.780		3.780	.257	-.488
1969	4.403		4.403	.657	.143
1970	5.295		5.295	1.187	.786
1971	6.622		6.622	1.723	1.413
1972	9.521		9.521	4.183	3.706
1973	12.572		12.572	6.416	5.994
1974	17.166		17.166	5.269	4.870
1975	21.171		21.171	4.041	3.668
1976	25.985		25.985	6.544	5.657
1977	32.037	3.700 NB	35.737	7.256	6.216
1978	43.511	4.600 NB	48.111	11.895	11.535
1979	49.904	6.200 NB	56.104	9.689	9.443
1980	53.848	10.800 NB	64.648	6.913	5.163
1981	61.411	14.100 NB	75.511	7.507	5.695
1982	70.198	13.067 CB	83.265	3.994	-2.332
1983	81.319	10.313 CB	91.632	4.563	.086
1984	91.091	10.948 CB	102.039	11.995	5.096
1985	94.857	9.269 CB	105.126	11.608	4.400
1986 ^P	101.540	9.032 CB	110.572	6.760	.771

Sources: Banco Central do Brasil and Nogueira Batista (1980).

Notes: (1): Medium- and long-term debt outstanding at the end of the year. (2): Nonregistered debt. NB: Nogueira Batista's estimates. CB: Central Bank figures.

^PPreliminary estimate.

Table A.32 Net Capital Flows (in millions of U.S. dollars)

Year	Net Interest and Profits (1)	Amortization (2)	Capital Service (1) + (2) - (3) (3)	Net Loans + Financial Flows (4)	(4) - (3) = (5) (5)
1975	1,804	2,172	3,976	7,483	3,507
1976	2,039	2,888	4,927	7,921	2,994
1977	2,462	4,060	6,522	8,727	2,205
1978	3,342	5,324	8,666	15,388	6,722
1979	5,348	6,385	11,733	11,288	-445
1980	7,457	5,010	12,467	13,315	848
1981	10,305	6,242	16,547	16,783	236
1982	12,551	6,952	19,503	12,451	-7,052
1983	10,263	6,863	17,126	7,778	-9,348
1984	11,449	6,468	17,917	8,768	-9,149
1985	11,092	8,890	19,982	5,614	-14,368

Source: Banco Central do Brasil.

Table A.33 Average Cost of Brazil's Foreign Debt

Year	Net Interest Payments (\$ millions) (1)	Lagged Net Debt (\$ millions) (2)	Average Interest Rate (%) (3)	U.S. Inflation (%) (4)	Real Interest Rate (%) (5)
1968	144	3,083	4.7	4.4	.287
1969	182	3,523	5.2	5.1	.095
1970	234	3,747	6.2	5.4	.759
1971	302	4,108	7.4	5.0	2.286
1972	359	4,899	7.3	4.2	2.975
1973	514	5,338	9.6	5.8	3.592
1974	652	6,156	10.6	8.8	1.654
1975	1,498	11,897	12.6	9.3	3.019
1976	1,810	17,310	10.6	5.2	5.133
1977	2,104	19,441	10.8	5.8	4.726
1978	2,696	24,781	10.9	7.4	3.259
1979	4,186	31,616	13.2	8.6	4.236
1980	6,311	40,125	15.7	9.2	5.952
1981	9,161	46,935	19.5	9.4	9.232
1982	11,353	53,904	21.1	6.0	14.245
1983	9,555	66,204	14.4	3.9	10.137
1984	10,203	76,756	13.3	3.7	9.251
1985	9,659	79,096	12.2	3.4	8.522
1986	9,093	84,249	10.8	2.6	7.985

Source: Banco Central do Brasil.

Table A.34 Foreign Debt Indicators (in millions of U.S. dollars)

Year	Debt Service (2) + (3) (1)	Amortization ^a (2)	Interest Payments (3)	Registered Debt (4)	Reserves (5)	Net Debt (4) - (5) (6)	Short-Run Debt (7)	Total Debt (4) + (7) (8)	Interest Payments/Exports (9)	Debt/GDP (10)
1975	4,023	2,160	1,863	21,171	4,040	17,131	3,944	25,115	21.5	20
1976	5,089	2,998	2,091	25,985	6,544	19,441	6,160	32,145	20.6	21
1977	6,585	4,123	2,462	32,037	7,256	24,781	5,914	37,951	20.3	22
1978	8,770	5,426	3,344	43,511	11,895	31,616	8,676	52,187	26.4	25
1979	11,875	6,527	5,348	49,904	9,689	40,215	5,899	55,803	35.1	24
1980	14,146	6,689	7,457	53,847	6,913	46,934	10,397	64,244	37.0	26
1981	17,801	7,496	10,305	61,411	7,507	53,904	12,552	73,963	43.5	27
1982	20,766	8,215	12,551	70,198	3,994	66,204	15,166	85,364	62.1	30
1983	15,557	5,294	10,263	81,319	4,563	76,756	12,237	93,556	46.9	45
1984	14,135	2,866	11,449	91,091	11,995	79,096	10,948	102,039	42.4	48
1985	13,999	2,907	11,239	95,857	11,608	84,249	9,269	105,126	43.8	47
1986	13,255	3,200	10,055	94,938	6,760	88,178	9,032	110,572	44.9	42

Source: Banco Central do Brasil.

^aAmortization up to 1983 is on an accrual basis.

Table A.35 Currency Breakdown of Brazilian Foreign Debt,* 1973–85, Selected Years
(in percentages)

Year	U.S. Dollar	German Mark	Japanese Yen	French Franc	British Pound	Swiss Franc	Other
1973	79.9	4.0	2.5	2.9	6.3	.7	3.6
1976	84.9	4.1	3.3	1.7	2.2	.5	3.3
1979	75.8	9.0	7.2	2.2	2.2	1.6	2.0
1982	82.9	5.8	5.7	1.7	.9	.9	2.1
1985	74.8	4.4	6.8	1.8	.7	2.0	8.4

Source: World Bank.

*Public debt outstanding and disbursed at the end of the year.

Notes

Chapter 1

1. See Albert Fishlow (1988a) and Eliana Cardoso (1988).
2. See Eliana Cardoso and Rudiger Dornbusch (1988).

Chapter 2

1. See World Bank (1984).
2. The trade price and quantity indexes are those of *Conjuntura Economica*.

Chapter 4

1. The Brazilian indexation experience is described and analyzed in Rudiger Dornbusch and Mário Henrique Simonsen (1986).
2. There are many studies of the Cruzado Plan, several of which are given in the reference list. See, for instance, Arida and Lara-Resende (1985), Cardoso and Dornbusch (1987), Lopes (1986), and Modiano (1986).

Chapter 5

1. The different concepts of the budget deficit of the public sector are explained in appendix 2 in this chapter.
2. When prices are fully flexible and the budget deficit increases, the economy can jump from one equilibrium characterized by low inflation and high real cash balances to another with higher inflation and smaller real cash balances. The price level jumps, adjusting velocity. The growth rate of the monetary base, μ , then, is all the time equal to the inflation rate, Π , plus the rate of growth of income, Y , times the elasticity of the demand for the real monetary base in relation to income, β . That means that under full price flexibility, seignorage is equal to:

$$(\Delta H)/P = \mu(H/P) = (\Pi + Y\beta)(H/P).$$