

Modiano, Eduardo Marco

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## The two cruzados: The Brazilian stabilization programs of February 1986 & June 1987

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THE TWO CRUZADOS:  
THE BRAZILIAN STABILIZATION PROGRAMS  
OF FEBRUARY 1986 & JUNE 1987

Eduardo Marco Modiano<sup>1</sup>

<sup>1</sup> Associate Professor, Department of Economics, Pontifical Catholic University of Rio de Janeiro, Brazil.

## RESUMO

Este artigo analisa sucintamente os dois programas de estabilização brasileiros mais recentes: o Plano Cruzado de 28 de fevereiro de 1986 e o Plano Novo Cruzado de 12 de junho de 1987. São discutidos os principais ingredientes e os resultados alcançados com ambos os Planos. Da experiência com estas duas tentativas malogradas de estabilização da economia brasileira são extraídas algumas lições para a formulação e implementação de novos programas "heterodoxos" de combate à inflação.

## ABSTRACT

This article analyses briefly the two most recent stabilization programs for the Brazilian economy: the Cruzado Plan of February 28th, 1986 and the New Cruzado Plan of June 12th, 1987. The main ingredients and the results obtained with both Plans are discussed. From the experience with these two unsuccessful stabilization attempts for the Brazilian economy some lessons can be drawn for the formulation and implementation of new "heterodox" programs to curb inflation.

## **1. INTRODUCTION**

Inflation in the Brazilian economy is at present nearing 20% per month and the options for disinflation are once again under discussion. The society has already accumulated the experience of two unsuccessful heterodox stabilization experiments: the Cruzado Plan of February 28th, 1986 and the New Cruzado Plan of June 12th, 1987. The purpose of this paper is to review these two programs and to draw some lessons for future stabilization attempts in Brazil.

The two plans are based on an alternative diagnosis of the Brazilian inflationary process: the predominance of inflation inertia, feedback by widespread indexation, over aggregate demand and supply conditions<sup>2</sup>. This diagnosis was reinforced by the little effect that the orthodox stabilization programs adopted in Brazil from 1981 to 1984 had upon the trajectory of inflation. Inflation seemed to resist to the deflationary forces of recession and unemployment. Both programs derive from the so-called "heterodox shock"<sup>3</sup>. In its original form, it suggested a wage-and-price-freeze at levels consistent with the status-quo of the distribution of income and a widespread deindexation of the economy.

Following this introduction, section 2 presents the main ingredients of the Cruzado Plan. The motives that led to its failure are summarized in section 3. Section 4 describes now the main ingredients of the New Cruzado Plan. The failure of this second attempt is then discussed in section 5. Finally, section 6 concludes this work.

## **2. THE CRUZADO PLAN: MAIN INGREDIENTS<sup>4</sup>**

The Brazilian stabilization program of February 28th, 1986 promoted a monetary reform, that established the cruzado (Cz\$) as the basic unit of national currency. The rate of conversion was fixed at 1,000 cruzeiros per cruzado. The lack of synchronism and

<sup>2</sup> See Bacha(1982), Lopes and Lara-Resende(1981) and Modiano(1983).

<sup>3</sup> For the contributions to the design of the Cruzado Plan, see Arida and Lara-Resende(1985), Bacha(1986), Lopes(1984a,b), Modiano(1985a).

<sup>4</sup> This section draws on Modiano(1987a).

the different periodicities in wage (six months) and price (from daily to six months) adjustments required the design of specific rules for conversion, if major redistributions of income and wealth were to be avoided. These rules aimed at producing a "neutral shock", which would restore under the cruzado the same patterns of income and wealth distribution verified more recently under the cruzeiro.

**2.1. Wages** - Wages were converted into cruzados on the basis of the average purchasing power of the previous six months. The wage conversion formula computed the average real wage between September 1985 and February 1986, valued at prices of end-February. A bonus of 8% was conceded to all wage-earners, following the political decision to promote a redistribution of income toward wage-earners. Favoring still further the lower classes, the minimum-wage was set at Cz\$804, which implied a bonus of 16% with respect to the average purchasing power of the previous six months.

Wages were not frozen with the Cruzado Plan. Instead, the asynchronous annual labor negotiation dates, that had prevailed until November 1979, were restored. At the negotiation dates, wages would be automatically adjusted by 60% of the change in the cost-of-living. Over and above these annual automatic partial compensations, wages would be automatically adjusted according to a sliding scale, whenever the rate of inflation accumulated the trigger of 20%.

**2.2. Prices and the Exchange Rate** - Except for industrial electricity, which was raised by 20%, prices were frozen for unlimited time at the consumer levels prevailing on February 27th, 1986. There were no compensations neither for past inflation (since last adjustment) nor for future losses (during the freeze). Public and administered prices lagged behind costs, due to their frequent use in the 80s as part of antiinflationary policy.

The Cruzado Plan displaced the price-basis of the consumer price index (CPI) to February 28th, 1986. The rationale for such a move was that, with prices measured by daily or weekly averages, the CPI would register inflation in the first month of the freeze even if prices remained stable all along.

The exchange rate was also frozen at the level prevailing on February 27th, 1986. The comfortable external position of the Brazilian economy and the devaluation of the US dollar, to which the cruzeiro was pegged, against European currencies and the Japanese yen in late 1985 and early 1986 seemed to eliminate the need for a maxidevaluation prior to the Plan.

**2.3. Rents** - For residential rents, average-to-peak ratios were announced for both six and twelve months adjustments. These should be applied after the values were monetarily updated to February 28th, 1986. For commercial rents, the program established multiplicative coefficients to be applied to the nominal rents of February 1986, according to the contracted frequency of

adjustments and the month of the last adjustment. These reproduced the average real rents over an interval equal to the period between adjustments.

**2.4. Future Contracts** - For contracts with postset interest rates the percentages contracted over and above monetary correction would become the nominal interest rates in cruzados, after the suppression of monetary correction. This would be the case for all contracts that lasted less than one year, as with the Cruzado Plan indexation had been forbidden within such a time span. The only exception occurred for savings-deposits, that moved, however, from monthly to quarterly indexation.

For contracts with preset interest rates, a table for daily conversion of future cruzeiros into cruzados was enforced for the following twelve months. The Cruzado Plan preset arbitrarily the future devaluation of the cruzeiro at 0.45% per day, which corresponded to the daily average of the inflation rate between December 1985 and February 1986.

**2.5. Monetary and Fiscal Policies** - The Cruzado Plan did not indicate any rules or targets for monetary and fiscal policy to complement the stabilization program. The action of monetary and fiscal policies was left to the discernment of the economic authorities. The implicit objective of monetary policy during the first months of the Plan was to accommodate the spurt in money demand that would result from a portfolio shift towards the stable new currency, as this movement was viewed as non-inflationary. Interest rates would signal insufficient or excessive monetization.

Monitoring interest rates during the first months of the Plan would prove, however, a difficult task as several restrictions applied. Higher interest rates could negatively affect investment programs and would increase the burden of the domestic public debt. Lower interest rates could stimulate speculation with inventories and foreign currency, threatening stabilization.

Concerning fiscal policy, the government had announced in December 1985 a "fiscal package" that aimed at eliminating the Public Sector Borrowing Requirements (operational concept) projected for 1986. However, the increased revenue, that depended upon with the continuity of the inflationary process, such as the taxation of nominal capital gains, would not materialize with the abrupt decline in inflation rates. Also the "fiscal package" of December 1985 could not have taken into account the loss of the "inflation-tax" that would follow price stabilization after February 1986.

### **3. THE CRUZADO PLAN: MAIN RESULTS<sup>5,6</sup>**

<sup>5</sup> The data used in this section are presented in the tables of the Appendix.

<sup>6</sup> For further detail see Carneiro(1987), Franco(1986), Marques (1987) and Modiano(1987a).

The analysis is divided into three periods. During the first period, from March to June 1986, disinflation was actually obtained but also the first problems of the stabilization program became visible. The second period, from July to October 1986 is characterized by the total immobility of the government in face of the aggravation of product shortages and the deterioration of the foreign sector accounts. The third period, from November 1986 to June 1987, confirms the failure of the Cruzado Plan, with the return of high inflation rates.

**3.1. Mar 86/Jun 86** - The Cruzado Plan was enthusiastically received by the population. The President's claim for the population to watch the price freeze was viewed as a civic duty and the technically fragile price freeze became the "fundamental piece" of the stabilization program.

Inflation rates, as measured by the new CPI (IPC), in fact declined during the first months. The maximum monthly inflation rate was 1.4% in May. The decomposition of the monthly rates of inflation revealed, however, the first symptoms of excess demand in the economy. Prices that could not be controlled, like clothing articles and used cars, were increasing at the rates of 4 to 5% per month.

The redistribution of income favoring wage-earners, the voluntary dissavings caused by monetary illusion, the decline in withholding personal income taxes, the reduction of interest rates, the repressed consumption during the recession years and the freezing of some prices at very low levels triggered all together a "consumption boom". Shortages were observed during this period, but were restricted to the milk, meat and automobile markets, and would not represent a generalized problem until the following period.

Generalized excess demand was building up as the increase in money supply exceeded the natural rise in money demand that followed abrupt disinflation. The liquidity slack from excessive monetization reflected itself in terms of ex-post negative real interest rates. As a consequence stock prices increased 50%, the premium on the dollar parallel market jumped from 26% to 50%, and the prices of real assets increased significantly.

At the end of this period economic policy had, apparently, only two options left: either lift the price freeze or slow down output growth by means of a severe and quick cut down in aggregate demand.

**3.2. Jul 86/Oct 86** - On July 24 the government announced the "Cruzadinho", a timid fiscal package designed to dampen the consumption pressures. It involved basically a compulsory savings scheme: the creation of new indirect taxes on purchases of gasoline and automobiles that would be refunded after three years. The credibility on the Plan was further harmed by the decision to purge these price increases from the CPI (IPC). The main objective of the purge was to avoid fueling the wage trigger counter.

From August to November 15 all government efforts were concentrated on winning the elections for state governors the Constituent Congress. Economic policy was paralyzed. As expected the "Cruzadinho" fell short of restraining consumption. Much to the contrary the expectation of an imminent price liberalization gave a new impulse to consumer purchases. Shortages were increasingly frequent and queues became part of the daily routine.

Official inflation during this period remained at low rates, displaying only a slightly ascending trend. However, official inflation was less and less related to actual inflation as unreported overprices and new brands became common expedients to circumvent the price freeze.

Until August the trade surpluses were not reflecting the excess demand in domestic markets. This situation changed in September, and more drastically in October, as exports revenues fell from US\$ 2.1 to US\$ 1.3 billion. Speculation over a cruzado maxidevaluation led the premium on the dollar parallel market to 90% in October. Still in October, the government devalued the cruzado by a modest 1.8% and announced a policy of eventual minidevaluations based on an exchange-rate/wage indicator.

**3.3. Nov 86/Jun 87** - One week after the government party had won the elections, the Cruzado II was announced. It was a "fiscal package" that aimed at increasing government revenue by 4% of GDP, through raises in indirect taxes, at the cost of a violent inflationary shock. The increases in administered prices (up to 100%) provided a scape valve for all the repressed inflation that had been built up during the extended freeze. The rate of inflation reached 16.8% in January 1987, which meant that the first wage adjustment of 20%, triggered by the December 1986 inflation, accounted for little more than the loss of purchasing power that occurred during that same month. Real wages declined during this period.

Relying upon the markets contraction to avoid an inflationary explosion, the government acquiesced to the pressure for liberalization and lifted almost all price controls in early February 1987. On February 27th, as the Cruzado Plan completed one year, the reindexation of the economy was completed with the reintroduction of monetary correction on a monthly basis. Together with the wage sliding scale, the economy would become more heavily indexed than before the Plan.

Consumer purchases fell as a result of the decline in real wages, the rise in interest rates and the increase in uncertainty. The slowdown was reinforced by the limits imposed on imports of essential raw materials and intermediate products due to the scarcity of foreign exchange and the disorganization of domestic markets caused by the abrupt lifting of price controls with no guidelines with respect to either future cost adjustments or a new freeze.

As the monthly trade balances did not show any signs of recovery, the government decided in late February 1987 to suspend interest payments on the foreign debt to private bankers for



unlimited time. The objectives of this moratorium were: to stop the loss of foreign exchange reserves; and to regain popular support as government credibility was being considerably harmed with the failure of the Cruzado Plan.

In the meantime the Finance Minister, that had become most popular at the wake of the Cruzado Plan, lost his office in April 1987 as the rate of inflation exceeded the threshold of 20% per month. The new Finance Minister, a sympathizer of the "heterodox shock"<sup>7</sup>, could not contain the constant wave of rumors of an imminent price freeze, which further pushed inflation rates upwards. A new version of the Cruzado Plan was finally announced on June 12th, 1987.

#### **4. THE NEW CRUZADO PLAN: MAIN INGREDIENTS<sup>8</sup>**

The New Cruzado was presented to the population as a hybrid stabilization program, that included both orthodox and heterodox elements. In contrast to the original Cruzado, the new program neither aimed at the "zero inflation" target nor planned to eliminate indexation. It intended to promote a deflationary shock with the end of the wage sliding scale and counted on reducing the public deficit to sustain the lower inflation rates.

**4.1. Wages** - Wages were frozen for at most three months at the levels prevailing on June 12th, 1987, incorporating the adjustment triggered by the rate of inflation of 23.2% of May 1987. There were, however, no compensations for the rate of inflation of June 1987, that was pushed upwards by major increases in public and administered prices before the freeze. The difference between actual inflation and the trigger adjustments (that were limited to 20%), accumulated from the last labor negotiation to May 1987, would be paid in six monthly instalments, starting in September 1987.

After the freeze wage adjustments would follow a new indexation rule: monthly rates would be preset for the following three months based the average rate of inflation of the preceding three months. This new scheme maintained the same frequency of adjustments, that resulted from the sliding scale of the Cruzado Plan, but expanded the time lag between actual inflation and wage compensations<sup>9</sup>.

**4.2. Prices and the Exchange Rate** - Prices would also be frozen for at most three months at the levels prevailing on June 12th, 1987. Before the freeze major price increases were announced for public and administered prices: 45% for electricity; 34% for telephone; 32% for steel; 36% for bread; 27% for milk and 13% for fuel. Future price corrections would have as upper limits the same monthly percentages that applied to wage adjustments.

<sup>7</sup> See Bresser Pereira and Nakano (1984, 1986).

<sup>8</sup> The two next sections draw heavily on Modiano (1987b).

<sup>9</sup> See Modiano (1985b).

The price-basis for computation of the CPI was also moved to the official beginning of the freeze: June 15th, 1987. The main difference with the Cruzado Plan stemmed from the official determination that all price increases announced with the New Cruzado should be entirely incorporated to the rate of inflation of June 1987, computed between May 16th and June 15th.

On June 12th, 1987 the cruzado was devalued by 9.5%. As the New Cruzado did not aim either at "zero inflation" or at eliminating indexation, the exchange rate was not frozen. Instead the daily minidevaluations, reborn in November 1986, were maintained. A lower pace for the minidevaluations during the first month of the price freeze was announced. This would favor lower inflationary expectations without putting at risk the already fragile foreign exchange accounts.

**4.3. Rents** - Both residential and commercial rents were frozen at the levels of June 1987. There was no compensation for the time elapsed since the last adjustment. After the freeze the rents would be monetarily corrected according to the current legislation, which was not altered.

**4.4. Future Contracts** - Contracts with postset interest rates, reintroduced for the short term in December 1986, were not affected by the New Cruzado as indexation was not suppressed. For contracts with preset interest rates, a table for daily deflation of future payments in cruzados was announced for the first month. It aimed at eliminating inflationary expectations, arbitrarily set at 15% per month, embedded in future payments in cruzados. As opposed to the Cruzado Plan, several exemptions were officially allowed. Also as the New Cruzado did not involve a new currency, the intervenience in private contracts could be disputed in law courts.

**4.5. Monetary and Fiscal Policies** - The New Cruzado Plan, as opposed to the original Cruzado Plan, announced active monetary and fiscal policies. In 1988 the Central Bank would follow an independent monetary policy, monetary expansions to finance Treasury deficits were forbidden, all government expenditures had to be previously budgeted and the multiple government budgets would be unified. In the short-run the government would practice positive real interest rates to inhibit inventory speculation and consumption of durables, as well as the flow of funds to the parallel dollar market.

The program aimed at reducing the public sector deficit in 1987 from the estimated 6.7% to 3.5% of GDP. The first measures, announced with the New Cruzado, produced only a modest reduction: the increases in public tariffs accounted for 0.8% of GDP and the elimination of the wheat subsidy for 0.4% of GDP. The postponement of some public investment projects, with no budgeted funds, would contribute to the new image of austerity of the government. The Macroeconomic Consistency Plan, that would be launched later, would announce further cuts in the public sector deficit.

## 5. THE NEW CRUZADO PLAN: MAIN RESULTS<sup>10</sup>

The analysis of the results obtained with the New Cruzado Plan is divided into two periods. During the first period, from July to August 1987, with the wage-and-price freeze officially in force, inflation was once again considerably reduced but the difficulties are clearly perceptible. The second period, from September 1987 to May 1988, confirms the failure of this second attempt.

**5.1. Jul 87/Aug 87** - Inflation declined from 26% in June to 3% and 6% in July and August respectively. Based upon these two rates monthly wage adjustments were preset at 4.7% for the quarter starting in September. The observation of high rates of inflation during the price freeze can be partially explained by the lack of popular support, after the failure of the Cruzado Plan. Also the price control agencies had been dismantled with the liberalization that followed the Cruzado Plan in February 1987.

Real wages further declined during the freeze. The losses in real wages and the practice of positive real interest rates further slowed down economic activity during this period. As opposed to the Cruzado Plan, inflation during the freeze was not due to excess demand. Also the suspension of the wage trigger and the change in the official inflation index promoted a rupture with past inflation, that ruled out inflation inertia.

The persistence of "high" inflation during the freeze can be explained by an income distribution conflict. Relative prices were not in equilibrium on June 12th, 1987, due to overpricing on the expectation of an imminent new freeze and the major increases announced for public prices. The "flexibility" of the price freeze, allowed the price increases that occurred on the eve of the Plan to be passed on, in search of a new equilibrium. Besides, the recovery of the real resource transfers to the rest of the world, with the increase in trade surpluses after May 1987, amplified the internal conflicts.

The inflationary pressures led the government in August 1987, while the freeze was still officially in force, to reduce the scope of controlled prices and to allow, on an emergency basis, some price adjustments limited to 10%. The credibility of the Plan was severely harmed for two reasons. First, the government indicated that the price freeze need not be respected. Second, the new "emergency ceiling" for price adjustments of 10% was about twice the "official ceiling", which was equal to the rate of wage adjustments, preset at 4.7% per month.

During this interval the government announced the Macroeconomic Consistency Plan that translated a considerable change with respect to the previous administration. Increased

<sup>10</sup> The data used in this section are presented in the tables of the Appendix.

savings would not result anymore from "forced" foreign savings with the moratorium. Cuts in current expenditures and increases in taxes and tariffs aimed at increasing public savings by 4% of GDP. The political opposition to such an internal adjustment was considerably underestimated.

**5.2. Sep 87/May 88** - The decline in demand and the perspective of additional losses for real wages during the last quarter of 1987, with the official end of the price freeze and wage adjustments preset at 4.7% per month, led to two types of concessions. In some cases the six instalments of the difference between inflation and trigger payments were anticipated. In other cases wages were increased by of 14.8% in September, with the advancement of the preset increases of 4.7% for October and November.

Also workers started to demand and to obtain at the labor negotiations the incorporation of June 1987 inflation to their wages. A simple analytical exercise could show that if real wages were to remain unchanged, an increase of 26% in nominal wages would push inflation rates to 16-21% per month. As labor negotiations were evenly distributed along the year, the acceleration of inflation would be gradual. The failure of the New Cruzado would also be gradual.

The recovery of real wages gained a new impulse with the proliferation of such agreements within the public sector, which mined the last chances of attaining the announced reduction in the public deficit in 1987. To counteract such cost pressures the government started a program to gradually raise public prices in real terms, which led inflation rates from 9.2% in October 1987 to 18% in February 1988. As measured by the Public Sector Borrowing Requirements (operational concept) the deficit reached 5.5% of GDP at the end of 1987.

With official inflation at 14.1% in December, under a wave of rumours of an imminent new freeze, and after the rejection of his proposal for new and higher taxes, the Finance Minister, that launched the New Cruzado, resigned. The new Finance Minister, in office since January 1988, started by rejecting the heterodox shock and by announcing a modest inflation target: stabilization at 15% per month. The gradual reduction in the public deficit, projected at 7-8% of GDP for 1988, has been emphasized. To this end, the loans to the public sector were frozen in real terms, after a long debate the wage increases (preset at 16.2% per month for April and May) were suspended for public workers for two months, and the wheat subsidy was reduced. However, inflation reached 19% in April.

## 6. CONCLUSIONS

The analysis of the results of the two Cruzado Plans of the Brazilian economy can be summarized in terms of six lessons for future stabilization attempts<sup>11</sup>. The first lesson confirms

<sup>11</sup> For further details see Dornbusch and Simonsen(1987), Modiano(1988) and Ocampo(1987).

that it is perfectly possible to design a stabilization program to produce an abrupt and significant decline in inflation rates without going through a major recession. The combination of incomes policy with demand policies can reduce the costs of disinflation in terms of output and employment.

The second lesson demonstrates that the initial conditions in terms of wage and prices are extremely important for a successful stabilization. The promotion of strong redistributions of income, without the support of a "social pact", at the onset of the program shortens the duration of the freeze and threatens the credibility of the program.

The third lesson states that a "fiscal adjustment" should complement any heterodox treatment, if this is to result in something more than just a temporary inflation relief. The reduction in the public deficit should account for the loss of the the inflation tax and counteract the expansionary impact of abrupt disinflation, due to both wealth and income effects.

The fourth lesson stresses the relevance of active demand policies, monetary and fiscal, during the program, in addition to the initial fiscal adjustment. The action of fiscal and monetary policies is crucial to inhibit inventory and foreign exchange speculation as well as the consumption impulse that may threaten the program.

The fifth lesson refers to the strength of the foreign accounts of the economy. The need to operate large transfers of real resources to the rest of the world during the program stimulates the internal income distribution conflicts, threatening stabilization.

Finally, the sixth lesson shows the importance of an active incomes policy during the whole program. Permanent negotiations between representatives of government, labor and capital, might avoid both the *a priori* establishment of new indexation rules for the period following the freeze as well as the recourse to short-term reindexation once the program faces its first difficulties.

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## Appendix

Table 1

DATE	INFLATION RATES Monthly Variation (%)		GROWTH OF INDUSTRIAL PRODUCTION Accumulated over 12 months (%)	MONETARY AGGREGATES-BALANCE:					AVERAGE EXCHANGE RATE:		SALES (1) (%)	OPEN UNEMPLOYMENT RATE (%)
	Consumer Price Index	General Wholesale Prices		TRADE BALANCE: (US Millions)	(Cz\$ billions)		OVERNIGHT OF RETURN (%)	OFFICIAL				
			Monetary Base		Means of Payments	CZ\$/US\$		PARALLEL CZ\$/US\$				
Mar-85	12.8	13.6	8.1	897	14.4	31.0	11.8	4.16	5.15	8.6	6.5	
Apr-85	8.8	7.3	8.0	1078	14.6	34.3	11.9	4.72	5.18	8.8	6.1	
May-85	6.8	6.5	7.6	1238	16.5	37.2	11.1	5.24	6.20	10.8	5.9	
Jun-85	7.7	7.1	7.1	1230	17.8	44.3	9.7	5.74	6.98	11.4	5.6	
Jul-85	9.3	7.6	6.9	1228	19.6	49.1	8.8	6.22	8.24	14.1	5.4	
Aug-85	12.1	14.5	7.0	1097	22.4	56.0	8.3	6.71	9.28	15.7	5.3	
Sep-85	12.0	9.1	7.7	1305	25.8	65.0	9.2	7.46	9.95	16.0	5.4	
Oct-85	9.6	9.5	7.8	1114	26.8	67.5	9.4	8.19	10.14	17.9	4.7	
Nov-85	11.1	15.1	8.0	1078	32.1	83.9	9.2	8.93	12.23	18.0	3.9	
Dec-85	13.4	12.3	8.5	1210	45.5	112.0	12.3	9.91	14.49	18.0	3.5	
Jan-86	16.2	19.0	8.3	700	45.9	102.1	15.0	11.31	15.60	13.1	4.2	
Feb-86	14.4	22.2	9.2	628	51.5	116.5	13.1	13.03	17.37	15.1	4.4	
Mar-86	-0.1	-1.0	8.6	1137	70.0	209.0	0.7	13.84	17.50	13.7	4.4	
Apr-86	0.8	-1.5	9.9	1292	94.0	250.6	0.7	13.84	19.03	19.1	4.2	
May-86	1.4	0.1	10.7	1341	109.0	288.5	0.7	13.84	20.35	21.4	4.1	
Jun-86	1.3	0.4	11.6	1072	120.6	334.2	0.8	13.84	20.65	22.8	3.8	
Jul-86	1.2	0.6	11.9	1008	137.6	333.3	1.1	13.84	22.06	23.6	3.6	
Aug-86	1.7	1.3	11.9	950	145.8	356.1	1.5	13.84	23.85	22.8	3.5	
Sep-86	1.7	0.7	12.2	540	149.9	375.9	1.8	13.84	23.34	24.2	3.2	
Oct-86	1.9	1.2	12.0	-79	157.6	403.0	1.9	13.97	26.51	26.5	3.0	
Nov-86	3.3	2.1	11.9	-34	172.5	422.2	3.8	14.11	28.64	26.7	2.6	
Dec-86	7.3	7.7	11.5	-215	178.9	455.4	5.5	14.58	27.50	26.7	2.2	
Jan-87	16.8	10.5	11.0	-62	172.4	355.3	11.0	15.67	27.39	17.9	3.2	
Feb-87	13.9	10.4	10.9	310	164.3	376.8	19.6	18.16	28.27	15.7	3.4	
Mar-87	14.4	14.1	11.6	303	169.2	425.0	12.3	21.01	30.64	8.6	3.3	
Apr-87	21.0	21.0	10.8	502	187.0	357.7	15.3	23.70	31.32	1.3	3.4	
May-87	23.2	30.7	10.2	960	184.6	341.1	24.6	30.78	35.38	-3.9	4.0	
Jun-87	26.1	26.3	9.2	1430	170.0	475.2	18.0	39.44	47.13	-7.9	4.4	
Jul-87	3.1	9.9	7.5	1458	219.0	522.6	8.9	44.93	57.93	-10.7	4.5	
Aug-87	6.4	3.7	6.2	1428	271.3	573.5	8.1	47.13	58.93	-11.0	4.2	
Sep-87	5.7	7.6	4.3	1494	324.9	622.9	8.0	49.87	61.20	-13.0	4.0	
Oct-87	9.2	11.7	2.6	1200	373.2	696.0	9.5	53.40	68.10	-15.1	4.0	
Nov-87	12.8	15.0	1.7	1044	389.2	795.6	13.0	59.29	70.28	-16.6	3.6	
Dec-87	14.1	16.1	0.9	1097	503.5	1046.0	11.4	67.34	86.42	-17.4	2.9	
Jan-88	16.5	18.4	-0.2	1032	505.4	923.3	16.3	77.65	95.78	-18.8	3.8	
Feb-88	18.0	17.9	-1.0	858	469.5	1006.2	17.8	90.84	111.03	n.a.	4.3	
Mar-88	16.0	17.5	-2.8	1218	675.3	955.0	16.1	107.14	140.16	n.a.	n.a.	

(1) Accumulated from January until the current month over the same period of the past year

Note: n.a. = not available

Sources: FINEG, FGV, Gazeta Mercantil, Banco Central do Brasil, ANDINA, FIESP

Table 2

## MAIN ECONOMIC INDICATORS OF THE BRAZILIAN ECONOMY : 1980/86

	1980	1981	1982	1983	1984	1985	1986	1987
GDP - RATE OF GROWTH (%)	9.1	-3.4	0.9	-2.5	5.7	8.4	8.0	2.9
INDUSTRY - RATE OF GROWTH (%)	9.2	-9.2	-0.1	-6.6	6.1	9.0	12.1	0.9
IMPLICIT DEFLATOR OF GDP (%)	91.7	102.5	92.9	151.9	210.5	225.5	143.5	224.8
GENERAL PRICE INDEX - FGV - (ANNUAL VAR-%)	110.2	95.2	99.7	211.0	223.8	235.1	65.0	415.8
CONSUMER PRICE INDEX - FIBGE - (ANNUAL VAR-%)	99.2	95.6	104.8	164.0	215.0	242.2	75.5	365.0
EXCHANGE RATE DEVALUATION - END OF PERIOD (%)	54.0	95.1	97.7	289.4	223.1	229.5	42.4	363.8
EXCHANGE RATE - ANNUAL AVERAGE (CZ\$/US\$)	0.053	0.093	0.179	0.573	1.836	6.169	13.500	39.24
TRADE BALANCE SURPLUS (US\$ BILLIONS)	-2.8	1.2	0.8	6.5	13.1	12.5	8.3	11.2
NET INTEREST ON FOREIGN DEBT (US\$ BILLIONS)	6.3	9.2	11.4	9.6	10.2	9.7	9.1	8.8
GROSS FOREIGN DEBT-MEDIUM AND LONG TERM (US\$ BILLIONS)	53.8	61.4	69.7	81.3	91.1	95.9	101.7	107.5
INTERNATIONAL RESERVES (US\$ BILLIONS)	6.8	7.5	7.0	4.6	12.0	11.6	6.8	7.5
MONETARY BASE - END OF PERIOD (CZ\$ BILLIONS)	0.7	1.1	2.2	3.5	12.7	45.5	178.9	505.4
MONEY SUPPLY - END OF PERIOD (CZ\$ BILLIONS)	1.4	2.6	4.2	9.2	27.7	112.0	455.4	1046.0
PUBLIC SECTOR BORROWING REQUIREMENTS-NOMINAL (%GDP)	n.a.	n.a.	n.a.	n.a.	23.3	28.1	11.2	30.4
PUBLIC SECTOR BORROWING REQUIREMENTS-OPERATIONAL (%GDP)	n.a.	n.a.	n.a.	n.a.	2.7	4.3	3.6	5.5
NATIONAL TREASURY - REVENUE (CZ\$ BILLIONS)	1.2	2.2	4.6	11.3	33.8	134.5	394.0	1203.4
NATIONAL TREASURY - EXPENDITURE (CZ\$ BILLIONS)	1.2	2.2	4.6	11.3	33.8	121.2	500.2	1392.1

Sources: National Accounts of Brazil  
Central Bank of Brazil

Note : n.a.= not available



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