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# The cruzado experience: an untimely evaluation after ten months

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## 1. Introduction[1]

Political convenience rather than economic opportunity seemed to be the most important characteristic of the timing of adoption of the radical stabilization programme called the Cruzado Plan, in 28 February 1986. Economic opportunity is hard to define, as one may always point out to specific characteristics of the economic conditions which might have recommended some delay, some corrections of relative prices before the freeze, administrative preparations which might have been made in advance, adjustments in the first project, and so on, all must be pointed out as necessary, in ideal terms as, an adequate preparation for a sudden measure aiming at stopping inertial inflation.

Reality, however, turns always to be more complex and subtle than economists' design. The timing, character and development of the Brazilian experiment was not determined by requirements of economic optimally, but by the simple fact that the explosion of the monthly rates of inflation in the beginning of 1986 signalled a deterioration of the government's political support which was seen as a menace to its stability.

In particular, the fact that in 1986 the country would have general elections for a constituent assembly, besides state governors and local legislative chambers, added special features to an eventual debate over legitimacy of President Sarney's mandate. The economic problems faced by the Sarney government viewed from the first two months of the year seemed to signal a very difficult year ahead[2]. From a political viewpoint, the cruzado experiment allowed the President to regain not only initiative on economic matters, but political control which seemed to be escaping through his fingers.

The objective of this paper is to review the Brazilian experience with monetary reform. Its main point is that one important determinant of the results so far attained is that short term political results were virtually all that mattered, and economic performance would be important only in so far as it imaged on political success; the outcome of the process was that economic rationality had almost invariably to succumb before political convenience.

The paper is organized as follows: the second section briefly reviews the basic rationale of the programme and describes its first effects, section 3 describes the performance of the economy

[1] A previous version of this paper was discusses at the Seminar on Comparative Experiences of Stabilization Policies in Latin America, held at FEDESARROLLO, Bogotá, January 9-10, 1987, sponsored by IDRC. A companion paper containing a detailed analytical description of the major issues involved in the Cruzado programme was prepared by Eduardo Modiano. The author wishes to thank Alexandre Sarmento and Eduardo Carvalho Andrade for the preparation of the Seminar and to his colleagues Marcelo de Paiva Abreu, Luiz Roberto de Azevedo Cunha and Edmar Bacha for valuable comments, retaining responsibility for the remaining errors and misconceptions in the paper.

[2] Just following a change in the composition of cabinet on February 1986, the PMDB leader in Congress, Senator Fernando Henrique Cardoso, interviewed by Jornal do Brasil [Feb. 24], presented a very pessimistic evaluation of the possibilities of guaranteeing support of the party to the Sarney government throughout the year, as the high inflation and consequent economic instability would inevitability become a major campaign issue.

throughout the year: inflation, level or economic activity, and balance of payments developments; section 4 deals with current prospects.

## 2. The Programme

The episode of heterodox stabilization was based on two main views. First, that the high rates of inflation experienced by the Brazilian economy since the beginning of the eighties, and which gave no sign to respond significantly to contractionary demand policies, would not allow the government to proceed with its objectives of economic growth due to climate of high uncertainty. Second, that sooner or later, the government would have to resume renegotiation of the external debt payments, and that under a 200-plus annual inflation rate pressures for a serious effort at controlling inflation would be forthcoming from foreign creditors.

At the time of its first anniversary, the Sarney government was bound to present a bad record regarding inflation. During most of its first year, the government had not been able to decide what to do to control inflation. Dornelles, the first Finance Minister was a competent tax-lawyer without any training in economics and was surrounded by a monetarist staff both at the ministry and at the Central Bank. The team, however, was not able to design a consistent stabilization programme but tried to increase the frequency of exchange rate and financial indexation and to decrease the frequency of price adjustments by means of price controls, and was dismissed after six months. Dornelles was replaced by Dilson Funaro, an entrepreneur with no background in economics either, who had been a harsh critic of Delfin Netto's policies in the beginning of the eighties. Funaro's initial policies contributed, if anything, to aggravate inflationary pressures: efforts at monetary and fiscal restraint were reversed, interest rates were lowered and the attempt at increasing the interval between price adjustments was abandoned.

During approximately six months between Dornelles' departure from government and the adoption of the programme, the issue of monetary reform was a favourite one in economic debate in Brazil, especially after the Argentine experiment with the Austral. Several economists who then became influential in policy formulation had been active participants in that debate, and had displayed conflicting views concerning the importance of inertial elements in Brazilian inflation[3]. With monetarist economists out of the government, part of the economic team tended to view financial speculation and high short run nominal interest rates as a crucial element in the mechanism of transmission of inflation.

[3] For an evidence the reader might compare, for example, the views presented in Árida and Resende [1985] and Lopes [1984], who favoured the adoption of a shock treatment with the criticism of the inertial interpretation offered in Beluzzo and Tavares [1984].

For those who attributed great importance to the inertial component of inflation, inertial elements which had to be extirpated from pricing behaviour in order to control inflation were of two characters. On the other hand, there were several formal indexation schemes, which had been introduced in the Brazilian economy since the sixties, as part of the process of minimizing the effects of inflation over the normal functioning of the economy: monetary correction of savings deposits, of public and private bonds, wage adjustment rules, and so on. On the other hand, pricing policies based on mark-up recomposition, together with wage claims and automatic correction of prices based on past inflation tended to increase downwards inflexibility of the rate of inflation. The basic reason is that formal as well as informal indexation amounts to the definition of a system of backward-looking system of price determination such that the level of past inflation plus or minus “shocks” determines of the minimum level of the current rate. As a consequence, demand restraint policies become both more ineffective to control inflation and mode costly in terms of output losses.

Although inertial elements were not seen as sufficient to explain inflationary dynamics, their importance in defining the costs and effects of demand policies were widely recognized. The main thrust of the heterodox shock was thus to promote a sudden de-indexation of the economy in order to break the linkages between past and future price increases. The biggest difficulty is to avoid major (and possibility perverse) distributive effects due to the simple fact that at any point in time during an inflationary process some prices and incomes have just been adjusted, and therefore are at a momentary peak, while others are about to be adjusted and thus are at a trough of real values. Another difficulty is related to the existence of contracts celebrated in the past based on estimated future inflation. A monetary reform opens space for the definition of rules for conversation of future payments which were contracted based on a high expected rate of inflation, into que new money, hopefully free of inflation hysteresis. In the technical jargon, the idea is to make contracts forward looking instead of backward looking.

The basic ingredients of the Cruzado Programme were:

(a) A monetary reform introducing a new money unit, the Cruzado, to replace the old Cruzeiro, with the publication of a conversion table for the payments in cruzados of debts contracted in cruzeiros. The conversion table assumed that contracts were signed with an expected inflation of 0.45% per day;

(b) Prohibition of indexation clauses for contracts of less than one year, except for passbook savings;

(c) A general price freeze in cruzados at their level of 28 February;

(d) Conversion of wages from cruzeiros into cruzados based on the average real wage of the past six months plus an 8% bonus: future wage increases would occur once a year based on free negotiation, with an automatic adjustment of 60% of past index. An automatic trigger-point wage increase whenever inflation accumulates 20% since the last negotiation;

(e) Nominal value freeze of government outstanding indexed bonds for one year;

(f) Revision of the federal budget for 1986 based on zero inflation expected for the remainder of the year;

(g) Adoption of a special emergency plan to guaranteed the supply of basic staple food, granting the federal government the power to carry stocks of basic items in order to avoid speculation against the programme.

Items (a), (b), (c) and (f) are self-explanatory, in view of the previous comments. Item (c), although not part of the original Arida and Resende monetary reform proposal[4] was an important part of the Lopes proposal in order to prevent defensive corrections of prices from undermining the success of the programme, whereas item (g) was seen as a guarantee that the government would have the means to avoid any major supply crisis. Item (d) is more complex to explain[5]. According to Bacha [1986], it constituted a departure from the distributive neutrality of the programme in view of the recognition, from the part of the government, that since real wages had been in an unfavourable situation since the exchange crisis of 1982, it would not be seen as fair to keep real wages frozen at their average real value of the previous six months. On the other hand, one problem for the implementation of the rule was the fact that real wages had been growing in several sectors of the economy since 1985, following different paces for different sectors, and therefore, it was not clear whether the effect of the adoption of an 8% increase would generate price increase in attempts at recovering the previous mark-ups. Finally, the adoption of the 20% trigger scheme was seen as a guarantee, for workers, that no significant real losses would arise from the fact that wages would now be corrected annually and no longer every six months[6].

Popular acceptance was immediate. Economists known by their different views on stabilization and who had argued against the shock only a few weeks before its announcement lent their support to the government's action and contributed to weaken and opposition to the programme[7]. The formal

[4] See the original Arida and Resende proposal in Arida and Resende [1985], and the Lopes heterodox shock scheme in Lopes [1984].

[5] In the companion paper prepared for the same seminar, Modiano extensively analyses the details of the wage correction formulae the rationale of which he has abundantly examined in previous works. See Modiano [1986a and b].

[6] There was much controversy over the issue of the trigger clause. Economists who had been engaged in studying analytical aspects of the monetary reform worried that the instability caused by a trigger clause for wages could ruin any attempt at correction of the programme in case the inflation rate went out of control for a short period. On the other hand, the simple existence of the clause, was seen by some analysts as a guarantee that the government would adopt a very conservative stance on demand policies for feat that an upsurge of inflation would bring back high rates and therefore demoralizing the whole scheme.

[7] Behind this apparent unanimity, quite different positions may be identified. One brand of economists saw in the programme a fantastic success of 'marketing' by means of which inflationary expectations could be brought down overnight. Another variant pointed to wage de-indexation as the main element which would open room for rapid disinflation. Finally, another group of economists saw the sudden end of 'financial speculation', meaning essentially inflation could be brought down. It should be easy to imagine the kind of complementary measures each group would support following the initial steps.

announcement by the President was also followed by immediate popular support to the freeze, the mass media helped in the task of explaining the nature of the programme to the population and the dollar black market rates fell immediately by around 20%. Some union leaders tried to articulate a general strike against the government plan on the grounds that it would be detrimental to workers, but the strike had to be cancelled for lack of public support.

Four main issues seem to have worried the economic team soon after the programme was launched: inflationary expectations, the immediate effect of frozen 'wrong prices', the fragility of the financial system and possible immediate recessive effects. The way the government chose to deal with these issues turned out to be crucial for the outcome of the process.

In order to deal with the first issue, immediately after the announcement of the Cruzado Plan the government set a zero target for inflation in an effort to effectively erase inflationary expectations from the memory of economic agents. This led to the abandonment of any attempt at correcting 'obviously wrong prices', meaning that the government opted for delaying as much as possible any corrective measure for fear of undermining confidence in the (short run) effectiveness of the price freeze. As a consequence, the second issue was transferred to the future.

Concern with the fragility of the financial system plus fear of the recession seem to the main reasons behind the chosen course of action of monetary policy.

It should be remembered that two phenomena were crucial for the future development of the financial sector at that junctions high uncertainly as to the rules since the programme meant a discontinuity of policy and was accompanied by news that a major financial reform was being considered by the government; strong shifts on the portfolios with higher demand for money to replace interest bearing near monies. For the financial system as a whole, this meant that the market for banking activities would be shrinking.

Thus, the government choose to immediately reduce the nominal interest rate with three things in mind: [i] to underline the possibilities of downward corrections of nominal prices to view of declining nominal financial costs; [ii] to reinforce expectations of zero inflation, so that agents could take nominal rates at the probable real rates of interest; [iii] to stimulate economic activity for fear that high uncertainty brought about by the drastic change of rules might exert a contractionary effect on investment. Therefore, it is easy to understand that the bias of post-cruzado monetary policy would be towards excessive monetization.

Finally, soon after the first stages, when the important issue was selling the idea that the programme would not stop with a mere adoption of a price freeze but that it would generate a series of non-inflationary relative price adjustments, the government realised that, contrary to the initial criticism of its perverse effect on real wages, the major distributive impact of the programme had been essentially favourable to workers. The upward movement of real wages, started with the bonus, would then be reinforced as long as the prices of major staple items could be kept constant or declining and this turned to be one of the battle horses of the political campaign in support of the programme.

## 3. Performance

A crucial aspect of the cruzado plan to bear in mind was its announcement as a non-recessive alternative to end inflation. Although, as mentioned earlier, the government could count on full support of the population, most of the opposition concentrated on the possible recessive effects of the price freeze immediately after the programme was launched.

In the first month it became clear that most industrial prices could actually go down since they were usually fixed for a period or around three months upon an expected inflation that did not materialize. A round of negotiation between wholesalers and retailers gave rise to some important decreases, and in March, average consumer prices, according to the official index (IPC) showed a deflation of 0.11%[8]. This was enough to promote a radical change in expected inflation and helped altering also the defensive behaviour of economic agents which contributes to perpetuate inflation rates. Inflation in the following three months remained below the 1,4% monthly mark as compared with the levels of around 14% before March. The February annualized quarterly rate of inflation of 415% fell to 8.6% in May while wholesale prices fell continuously until May. Unfortunately, the space for manoeuvre that was open for non-inflationary relative price corrections was not used by the government. Perhaps excessive concern with the zero target coupled with a perplexing disregard for the need to proceed with the downwards correction of some prices after the first month are part of the explanation.

The behaviour of the several components of the new official price index between March and November are shown in table 1. For comparative purposes, the monthly behaviour of other widely used indices for the same period are shown in table 2. From the former, two items evidence the difficulties of enforcing the freeze in items such as clothes, which tended to proceed in a high level of price inflation (although at a slower pace than before the freeze), as it had happened in the Argentine experience one year before. The item ‘transportation’ reflected the overheated marked for automobiles, new and used, for which demand had already been booming since the previous year, in a natural recovery after four years of recession and falling real wages for middle-income groups. The fact that car prices had been scheduled to increase at the time of the freeze and were thus seen as one of the first candidates for revision as soon as the government started correcting the ‘wrong’ prices,

[8] According to non-official indices, the deflation was still more significant, as seen in table 2.

led to anticipation of purchases, adding fuel to excess demand.

Difficulties started also to appear in relation to the supply of products whose prices had been frozen in February 1986 at the ‘wrong level’. Although the government had announced, on February 28 that some prices would soon be corrected, such corrections were never made, as concern with the immediate success of the reform became the dominant concern of policy-makers. This led to shortages and widespread illegal charging of overprice in the context of a demand boom whose intensity was neither anticipated or viewed as a problem. These difficulties affected not only the market for manufactured goods – especially consumer durables – but also markets such as those for meat, eggs and dairy products which, on top of being frozen at very low levels, had been already facing disturbances related to their long term cyclical behaviour.

The level of activity showed a significant increase: employment, industrial output, energy consumption and retail sales all boomed, industrial output increased 12.6% in the first semester compared to the same period in 1985. Data on the behaviour of production the several segments of industry are shown on table 3.

The demand boom may be explained by the accumulation of favourable impacts since February 1986 which include: effect on the total monthly wage bill of synchronization of wage adjustments and of the 8% bonus; wealth effects associated to the sudden change of inflationary expectations releasing funds for consumption; reshuffling of portfolios also related to inflationary expectations in favour of consumer durables; release of precautionary balances as accelerations of growth reduced unemployment risk; and the fiscal measures of the end of 1985 which contributed to increase disposable income in the short-run[9]. Less favourable interpretations include excessive monetization, uncontrolled deficit spending and a run on goods due to lack of confidence on the programme. In other words, the support shown by the public on TV interviews was not necessarily matched by its behaviour on the market place.

On hindsight, there seems to be agreement that monetary policy pursued by the Central Bank in the first months of the Cruzado Plan was too expansionist, especially in view of the fact that the government decided not to correct prices immediately after the freeze. This can be observed from tables 5 and 6. In the first table data on the evolution of selected monetary aggregates in the first six months of 1986 are shown. Nominal money stock (M1) increased by almost 200% from February to July. This is not enough of course to establish that monetary policy was too expansionist as it might simply reflect the sharp rise in the demand for money induced by the decrease in the opportunity cost

[9] A fiscal package passed by government on December 1985 had been designed to reduce the inflationary loss of government revenue, and to increase the incidence of taxation on the financial system gains with inflation. Although many government officials had referred to the package as a ‘preparation for the reform’, its adoption is actually an evidence that the decision to implement a shock had not been reached. For wage earners, the effect of the package was to increase take-home pay.

of holding cash and demand deposits. However, the occurrence of excessive monetization of the economy is suggested by the evolution of a broader monetary aggregate, such as M4. Price stability should only lead to a reshuffling in the portfolio of agents in the economy, with indexed assets being replaced by unindexed money. The data in Table 5 shows that M4 did not remain constant, increasing by 22.3% between February and July[10].

Another sign of excessive monetization of the economy is given by the ex-post real interest rates, the boom in stock market and the spread between the value of the U.S. dollar in the parallel and in the official markets after February[11]. In Table 7 the evolution of the ex-post real rates of return for selected assets is presented. We can see that both the ex-post net real return on very short-term applications (overnight deposits) and on Certificates of Deposits (CDs) remained either at a very low level or negative level. Besides, while the official exchange rate with respect to the dollar was kept constant, the rate of devaluation in the parallel market remained highly positive signalling the climate of uncertainly due to the delay in the announcement of complementary measures. By August, this spread, which was around 25% when the Cruzado Plan was launched, has climbed to 70%.

The government somewhat timidly attempted, in July 1986, to take the heat off demand by imposing additional taxation designed to skim off speculative gains being made by suppliers of scarce goods as automobiles and increased the sales tax on fuel[12]. The government opted for the adoption of a compulsory saving scheme – proceeds of additional indirect taxation are supposed to be produced to taxpayers in three years' time. The government's financial needs which resulted from the fall in tax revenues relatively to expected would thus be met by adding pressure where it was less needed, namely final prices. At the same time, the government published a Plan of Targets [Plano de Metas], in an attempt at reviving the aura of the Kubitschek's years trying to channel public as well as private investments to priority sectors, and announced that the increased financial requirements due to subsidies as a result of the price freeze, the most prominent example being milk, would be financed by additional taxation and not be correction of prices.

Among firms which had been caught by the freeze at very low levels there were some public enterprises as was the case of steel and postal services. Severe losses had been accumulating which added pressure to the public deficit. The July package stopped short of promoting a substantial adjustment in public tariffs as many economic advisers had hoped. Their failure in convincing those in power to promote a major adjustment both in prices and in government spending plans evidenced

[10] It should be noted that in March M4 increased by 12%. Part of this increase, however, had nothing to do with excessive monetization, but was due to the fact that a fraction of the stock of indexed deposits had readjustment dates between the last day of February and the last day of March.

[11] On February 1986, the spread between black market and the official rate was of 44.5% dropping to 26% in the following month and returning to the pre-shock level by the end of April.

[12] The July package stopped short of signalling a major reversal in demand policies. Analysts were divided about the issue controversy on the type of measure the government should be adopting, specifically, an increase in income tax retention which would immediately decrease wage-earners' take-home pay without creating additional pressure on prices.

the fact that preparation for the November elections would prevail over the need to exhibit austerity and concern for longer term goals.

The July package was not enough to contain demand and increase public savings in order to signal both a lower budget and a sustainable investment recovery. Dearth of dependable data on government finance was not attenuated by the creation of a Secretariat of Treasure whose main objective was to promote centralization of the Federal government's account and keep track of the fiscal deficit. Debate over the size of the public deficit continued to be held on the basis of very thin evidence, and therefore the official position that the fiscal deficit during 1986 had been reduced to less than 2% of GDP (from around 4.5% in 1985) has been object of a great deal of controversy[13].

By the end of the third quarter, when most analysis thought that the expansionist short run effects of the reform should be losing its main thrust, there were no signs of supply growth matching demand. Failure to enforce the price freeze in some markets like meat, for example, in which producers displayed their public contempt for governmental efforts at radical interventions, contributed to erode public confidence in the possibilities of enforcing the freeze for much longer and added fuel to the buying spree. Sectoral growth data illustrate the difficulties in sustaining the boom: in the first eight months of 1986, while industrial growth proceeded at 11.4% in relation to the same period of the previous year, production of durable consumer goods was not enough to cope with queues, although increasing 30%. The output of capital goods was 23.5% higher than in 1985 in the same period. This fact, coupled with the expansion of 40% plus of capital goods imports indicated a strong investment recovery and helped to support the official view that producers' confidence was high enough and that capacity expansion would soon meet demand needs.

Although the exchange rate had been kept constant in nominal terms until September, there was no sign of deterioration of the balance of trade until then. The sudden worsening after September, due to a steep fall in exports (see table 8), contributed to further crode the confidence in the maintenance of the rules of the game, as it signalled the difficulties in the external front and validated a further increase in black market rates. The government resumed the regime of mini-devaluations and offered exporters the possibility of depositing their revenues in dollars at the Central Bank in an effort to insure them against a possible maxi-devaluation. Export revenues kept on falling during the last quarter and, by the end of the year, there was a loss of some US$ 2 billion relatives to what had been previously expected. Though no dramatic change in balance of payments prospects for the following years are expected, provided that no unreasonable policies are adopted in the immediate future, disregard with import substitution and export promotion activities is likely to cause a continuous

[13] According to official data published by the press, by the end of October the financial position of the Federal Treasury, inclusive of transfers to State companies, exhibited a cash surplus of Cz$ 16,1 billion, including a revenue obtained by the sale of federal bonds of Cz$ 39,9 billion.

deterioration of the country's external position if no important reduction is obtained in the present levels of transfers abroad in order to service external debt. Black market exchange rates which have prevailed since the beginning of the fourth quarter, signal a high level of uncertainly not only with respect to the future external position but also with respect to political developments and the overall management of economic policy in the wake of the Cruzado plan. Another indication of such uncertainly is the sharp rise in the negative net flows related to foreign direct investment which rose to almost US$ 360 million until September in sharp contrast with behaviour until 1984.

These difficulties can in principle be reasonably accommodated at least in 1987 as long as the relief brought about by the price of oil and by international interest rates does not come to a sudden reversal. But lack of control of the foreign accounts in the short run, provoked by inconsistencies in relative prices aggravated by expectations of devaluation are certainly among the factors of decay of policy credibility.

By the end of the third quarter, it became clear that the July package has neither contributed significantly to revert deteriorating expectations nor solved the most visible market disequilibria. Monthly rates of inflation were kept low but on an accelerating path, as may be read on tables 1 and 2, and accompanying graphs. Agricultural prices stopped falling and shortages in some urban markets became an irritating part of the urban scene. Pressed to make further adjustments, the government concentrated the energy in guaranteeing a sweeping victory in the November elections.

On 21 November, as the government party was celebrating its victory in every state, and news were reaching the press that a sudden drop in monthly figures for exports had occurred in October[14], a new package of policies was announced. The new set of measures, unfortunately labelled 'Cruzado II' had the explicit objectives of controlling the public deficit, stimulating savings and exports and reduce industrial growth for 1987 to around 5 to 6%.

The measures involved a new increase in indirect taxes, this time accompanied by an adjustment in public tariffs which would add, according to official estimates, around 4% of GDP to public revenue in a year's time. As a consequence of some price corrections and tax increases, gasoline prices would be raised by 60%, other energy prices by 21%, telephone rates by 35%, automobiles by 80%, cigarettes and beverages y 100%, sugar by 60%, milk and dairy products by around 100%. In order to diminish the impact on the official consumer price index which would detonate a wave of wage corrections, due to the trigger clause, in January, the government announced it would change the price index and would purge the new index from the most significant effects of the package. The most adverse effect of the Cruzado II, however, was a vague announcement that more adjustments were to come in the near future, although neither the rules for price adjustments nor the pace of defrost

[14] See table 8, where a drop of around 28% relatively to the previous month is observed.

seemed to be known by the authorities, who kept referring to be known by the authorities, who kept referring to a price freeze which was clearly left behind given the immediate consequences of the policy package.

For the first time since the announcement of the Cruzado, the government admitted that the distributive tensions caused by the need to correct profit margins would be absorbed by wage-earners. Following a difficult period of political turmoil, when the government party menaced to withdraw support to the new measures, the government abandoned the idea of tampering with the price index thereby deciding to allow the detonation of the trigger clause in January. Unable to contain the distributive conflict implicit in the relative price corrections, the government initiated a new wave of corrective inflation, the full consequences of which are still hard to evaluate.

The developments of last two months of 1986 are bound to have important consequences for the behaviour of the Brazilian economy in the near future. By postponing the measures designed to correct the unbalances between demand and supply growth until after the elections, the government had practically decreed that existing pressures would be 'solved' by means of an inflationary wave. By the end of the year, demand pressures were aggravated as belief in the future of the price freeze waned away, and a process of defensive price increases began to generalize.

In the first ten months of the year, industrial output growing by 11.8% has not been sufficient to satisfy an overheated demand. Durable consumption goods have virtually disappeared from retailers although production of such items have grown by 25.3% relatively to the same period in the previous year. Capital goods may only be obtained after unusual delays, in spite of the growth of 23.2% in the output of the capital goods industry. Intermediate goods seem to constitute the major bottleneck in almost every segment of industry, although the production of such good has grown by around 9% in the same period.

The pattern of industrial growth in 1986 repeated the one observed in 1980 when a short-lived boom followed a frustrated attempt at partial de-indexation by the Figueiredo government[15].

After the November package, which was announced to strike a final blow on indexation by prohibiting indexation clauses in all contracts, indexation has rapidly returned to financial markets. As expected rated of inflation increased immediately. Futures markets for CD's signalled nominal rates of interest at pre-Cruzado levels of over 2002.

The post elections economic package, the increase in short-run interest rates and the effects of higher taxes in 1987 will probably have a strong restrictive effect upon the level of economic activity in the first half of the year. In spite of the strong recovery of agriculture which is expected for the year, some industrial recession seems inevitable in 1987. To what extent this will have a more

[15] The experiment has been analysed in Carneiro [1986a and b].

permanent character, it depends not only on the kind of Post-Cruzado anti-inflationary policies, but on the evolution of the balance of payments and on the outcome of current negotiations with foreign creditors.

## 4. Current prospects and conclusions

Political option for short-run success may have been the most striking feature of the first round of the Cruzado experiment in Brazil. Memories of the 1986 Delfim Netto stabilization experiment are inevitable, especially if one wishes to illustrate present uncertainties about the near future. In 1980, the foreign exchange crisis brought about by the resistance of foreign bankers to comply with Delfim's odd experiments resulted in a loss of around US$ 3.5 billion in foreign reserves. More important, in order to recover external creditability. Delfim had to promote a radical reversal of macro policies, which initiated the fiercest recessing in record. The Cruzado experiment may have cost more in foreign exchange as capital flight, stimulated by high blank market exchange rates may prove to have been more significant than in the worst years of the exchange crisis.

Conception of the Cruzado plan was based on the fact that inertial inflation was a crucial factor which undermined the effectiveness of demand policies to control inflation. After the adoption of the programme, the government seemed to be fascinated by its short run results, especially due to the fact that the freeze was a popular success and decided not to correct obviously wrong prices. The economic advantage of the freeze was to allow appropriate evaluation of relative prices, which under high inflation become hard to perceive. The political advantage was that it evidenced that 'high inflation' could be stopped by a strong political will. Unfortunately, both advantages were turned into a hindrance as long as those in charge of policy convinced themselves that they had also the power of deciding for how long they could stick to the illusion of zero inflation.

The target of zero inflation, on the other hand, proved to be an effective gimmick to bring down inflationary expectations very rapidly, but a very dangerous target to pursue at any cost by means of direct controls, when there were more obvious corrections of relative prices to be made, as soon as the government believed it could bring inflation down to very low levels for an indefinite length of time by means of price controls alone, the stage was set for a failure. The speed of deterioration of policy credibility was determined, from then onwards, by the pattern of shortages and consequent violations of the freeze.

At this point, another element was crucial, namely, the failure of supply control. Until September, six months the freeze, only a few markets exhibited signs of supply shortages, and most of them, in goods such as meat, milk and some agriculture products whose supply had been adversely affected by the drought of 1985. Back of competence to deal with the situation by means of providing either price adjustments, direct market intervention or imports in the needed quantities, contributed to revert the mood of public opinion, with a little help of mass media. The latter, affected by the cutbacks in advertisement expenditures of important customers such as cigarettes and beverages, lost their enthusiasm for the freeze and contributed to deflate the wave of public support.

Lack of demand control and failure to adjust relative prices as soon as such measures were seen as necessary were the main reason behind the difficulties faced by the Brazilian economy by the end of the year. As favourable expectations were not fulfilled, the government faces the renewed problems of credibility as to the future of the stabilization policy.

The distributive aspects of the Cruzado programme seem have been crucial to both the decisions concerning the specific policy measures which accompanied the shock and its relatively short success. First, as pointed out above, concern with possible adverse distributive effects of the programme was behind the adoption of the wage bonus. Secondly, most of the criticism which appeared in the press after the shock was directed to the fact that workers would certainly pay most of the costs of stabilization, both due to unemployment and fall in real wages which would, according to critics, be an inevitable outcome of the programme. Thirdly, although data on actual changes in income distribution are not available for the months after the programme, its distributive impact seemed to have aggravated the supply shortages in most urban markets, since the prices of food, the most important item of the consumption basket of the poor, actually decreased in nominal terms, therefore opening room for higher consumption of other items. Finally, government's hesitation concerning the adoption of corrective measures hinged upon what seems to be an inevitable reversal of distributive gains as a consequence of price corrections with or without the maintenance of the trigger clause.

Unfavourable expectations prevail now in three important matters supply problems, interest rates and the external sector of the economy. The first one has important immediate consequences for the future of inflation, as buyers run into existent stocks in order to defend themselves from future shortages and inevitable price rises. Uncertainly concerning the behaviour of interest rates revived the demand for indexed short assets and a new wave of financial speculation is spreading. Finally, exchange speculation has been fuelled by uncertainly as to the future of the Balance of Payments position, after the dramatic fall in the monthly trade surplus in the last four months of 1986.

As to the future of stabilization, further delay of credible corrective measures increase not only the climate of uncertainly which tend to paralyse investors, but also means that more permanent gains which were expected from the experiment may go down the drain.

The Cruzado programme gave the Brazilian government the opportunity of operating a radical change of prospects for the Brazilian economy. Since high inflation was seen as the main obstacle to a strong and long-lasting recovery after the external debt crisis of the early eighties. The sudden stop of inertial inflation was enthusiastically received as the magic which could ransom the country from what looked like an eternal constraint to steady growth. Unfortunately, failure to make use of the room for measure provided by the price freeze in order to implement measures which could sustain a path of low inflation without aggravating income concentration was received, as shortages undetermined the confidence in the programme, as a sign that heterodox stabilization policies aimed at stopping inertial inflation without resource to a long and disrupting recession are, but the structuralist dream. The emotional charge in the evaluation of the Cruzado experience seem to be, alas, inevitable. As it happened in the aftermath of the 1980 experiment with partial de-indexation, orthodox demand controls will inevitable be the main characteristic of the next round of macro policies in Brazil, if the government is not able to re-establish consensus to find a way out of the trap into which post-cruzado economic policy was caught after November.

One curious aspect of the Brazilian experience is now fast over indexation seems to be returning, as corrective inflation set off by the November package seems to determine at least three months of high inflation rates between December and February. The adoption of the trigger-point scheme for wages means that in January and February, practically all workers will have automatic increases. The government is currently trying to design a sort of social compact in order to avoid that effectiveness of the trigger give rise to a new spiral of wage and price increases after January. The problem seems to be that the government has little to offer to workers as a counterpart for the change in legislation which had been offered, which seems now to be inevitable.

The difficulties in reaching as acceptable agreement with trade unions are aggravated by the fact that, with the high rates of inflation expected for the first two months of 1987, financial indexation is back with its full strength, in spite of the official dismissals. The exchange rate has been corrected daily and the demand for indexed short term assets is booming as uncertainly with respect to the future of interest rates as overall lack of confidence spreads into all markets.

The initial success of the monetary reform seemed to be sufficient to convince the creditor governments, and the IMF, that the Brazilian government was seriously committed to controlling inflation and domestic disequilibria. Whether will be sufficient to allow some improvement in the negotiation with private banks after settlement with the Paris Club, it is still uncertain. In the meantime, the Brazilian government will face some additional difficult tasks such as evaluating the effects of the stabilization programme on government finance and taking complementary measures to convince the population that the programme was not a temporary trace, but a serious effort to end inflation.

Although international conditions for the Brazilian economy seem to be today more favourable than in 1980, thanks to higher world growth prospects, lower interest rates and oil prices, external restrictions cannot be rule out, given the fragility of the present pattern of negotiations of the external debt.

Possibilities of keeping the economy at a high level of capacity utilization side by side with the maintenance of the present high level of real transfers abroad seem to require not only the adoption of consistent macro policies in order to prevent industrial policy which fully exploits the country's comparative advantages, in order to keep a low import coefficient, at the same time it provides space for growing export capacity.

The record of the first two years of the Sarney government, unfortunately, does not encourage too optimistic views for the near future. Medium to long run prospects for the Brazilian economy have to incorporate, once again, scenarios of higher fragility in the external accounts, high inflation and consequently repeated rounds of half-heartedly adopted recessive demand policies, with or without supervision of the International Monetary Fund.

Table 1

Brazil: Official consumer price indices and main components (Mar-Dec 1986)

| Month | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Acum. Mar-Dec | Aver. Mac-Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | -0.11 | 0.78 | 1.40 | 1.27 | 1.19 | 1.68 | 1.72 | 1.90 | 3.29 | 7.27 | 22.15 | 2.02 |
| Good | -3.49 | -0.65 | 0.15 | 0.45 | 0.06 | 0.36 | 0.31 | 0.57 | 3.12 | 4.92 | 5.72 | 0.56 |
| Household Items | 2.01 | 1.62 | 2.26 | 2.13 | 1.94 | 2.16 | 1.18 | 2.44 | 1.53 | 3.59 | 22.91 | 2.08 |
| Personal Services | 1.24 | 0.49 | 1.09 | 0.93 | 1.14 | 2.13 | 1.06 | 1.81 | 1.33 | 7.37 | 20.02 | 1.64 |
| Housing | 0.07 | 0.71 | 0.83 | 0.63 | 0.76 | 1.03 | 0.61 | 0.63 | 4.08 | 8.02 | 18.49 | 1.71 |
| Health & Pers. Care | 1.85 | 1.35 | 0.49 | 0.52 | 0.25 | 0.30 | 0.73 | 0.60 | 0.60 | 2.00 | 9.02 | 0.87 |
| Transport & Comm. | 1.40 | 1.72 | 1.87 | 2.16 | 3.38 | 4.28 | 4.02 | 3.47 | 5.45 | 25.69 | 65.08 | 5.14 |
| Clothing | 6.32 | 4.36 | 6.96 | 4.3 | 1.97 | 2.30 | 5.40 | 5.54 | 5.84 | 4.96 | 59.30 | 4.77 |

Source: IBGE.

Table 2

Brazil: Monthly rates of inflation, several indices (Mar-Dec 1986)

| | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Acum. Mar-Dec | Aver. Mac-Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wholesale Prices | | | | | | | | | | | | |
| Total | -1.03 | -1.46 | 0.09 | 0.37 | 0.58 | 1.34 | 0.66 | 1.16 | 2.13 | 7.65 | 11.80 | 1.12 |
| Industry | -1.27 | -1.79 | -0.07 | 0.31 | 0.23 | 1.88 | 0.03 | 0.16 | 1.54 | 7.77 | 7.75 | 0.75 |
| Agriculture | 0.03 | -0.17 | 0.71 | 0.70 | 1.24 | 2.52 | 2.39 | 3.62 | 3.21 | 6.34 | 22.40 | 2.04 |
| Con. Price Index | -0.87 | -1.58 | 0.32 | 0.55 | 0.63 | 1.33 | 1.10 | 1.39 | 2.46 | 7.56 | 14.49 | 1.36 |
| Cons. Prices (INPC) | -1.31 | 0.43 | 1.08 | 0.97 | 0.84 | 1.12 | 1.19 | 1.43 | 3.29 | 7.27 | 17.30 | 1.61 |
| Cons. Prices (RJ) | -0.33 | 1.10 | 0.78 | 0.62 | 0.58 | 0.88 | 0.94 | 1.01 | 2.12 | 7.46 | 16.02 | 1.50 |
| Construction Price | -1.05 | -0.33 | 0.24 | 1.19 | 1.08 | 2.69 | 3.97 | 3.75 | 5.17 | 7.34 | 26.5 | 2.37 |
| Cons. Prices (SP) | -0.97 | 2.31 | 1.92 | 0.96 | 1.07 | 1.88 | 1.43 | 3.08 | 4.43 | 10.30 | 29.28 | 2.66 |

Source: IBGE, FGV, FIPE.

## Table 3

### Brazil: Indices of industrial production (Mar-Oct 1986)

| Month | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|---|---|---|---|---|---|---|---|---|
| Total | 100.00 | 104.01 | 108.55 | 114.64 | 124.26 | 123.25 | 129.59 | 135.13 |
| Capital goods | 100.00 | 111.17 | 107.92 | 122.67 | 123.67 | 119.52 | 129.65 | 134.07 |
| Intermediate goods | 100.00 | 101.58 | 106.18 | 110.91 | 119.45 | 120.02 | 124.34 | 129.70 |
| Consumer goods | 100.00 | 106.11 | 113.66 | 116.90 | 128.26 | 124.95 | 132.09 | 137.97 |
| Durable | 100.00 | 103.67 | 111.32 | 108.47 | 99.37 | 101.29 | 120.04 | 120.30 |
| Non-durable | 100.00 | 106.83 | 114.36 | 119.39 | 136.66 | 131.88 | 135.63 | 143.16 |

Source: IBGE.

## Table 3A

### Brazil: Industrial production (Jan-Oct 1986)

### (Accumulated growth up to each month)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 11.98 | 12.86 | 9.86 | 12.45 | 12.29 | 12.65 | 23.58 | 12.09 | 12.69 | 12.56 |
| Capital goods | 13.39 | 17.51 | 14.11 | 21.15 | 22.46 | 25.56 | 25.28 | 24.17 | 24.28 | 23.88 |
| Intermediate goods | 11.13 | 11.24 | 8.58 | 10.31 | 9.74 | 9.68 | 9.69 | 9.42 | 10.06 | 10.15 |
| Consumer goods | 13.69 | 14.73 | 10.85 | 13.10 | 13.22 | 13.67 | 13.16 | 12.31 | 12.71 | 12.07 |
| Durable | 17.27 | 23.26 | 22.64 | 34.97 | 40.63 | 40.78 | 33.94 | 30.08 | 28.39 | 25.30 |
| Non-durable | 12.90 | 12.82 | 8.14 | 8.42 | 7.56 | 8.07 | 8.78 | 8.53 | 9.30 | 9.14 |

Source: IBGE.

## Table 4

### Brazil: Unemployment data (Mar-Oct 1986 – %)

| Month | Total | RJ | SP |
|---|---|---|---|
| January | 4.20 | 3.90 | 4.30 |
| February | 4.40 | 3.90 | 4.40 |
| March | 4.40 | 4.20 | 4.30 |
| April | 4.20 | 4.10 | 3.70 |
| May | 4.10 | 3.70 | 4.20 |
| June | 3.80 | 3.10 | 3.60 |
| July | 3.60 | 3.10 | 3.50 |
| August | 3.50 | 3.20 | 3.50 |
| September | 3.20 | 2.90 | 3.30 |
| October | 3.00 | 2.90 | 3.60 |

Source: IBGE.

## Table 5

### Monetary aggregates (Cz$ Billion)

| Month | Mon. Base | M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| January | 46 | 102 | 271 | 537 | 830 |
| February | 52 | 117 | 323 | 634 | 966 |
| March | 70 | 209 | 414 | 715 | 1085 |
| April | 95 | 250 | 448 | 713 | 1098 |
| May | 109 | 288 | 482 | 765 | 1133 |
| June | 121 | 334 | 531 | 820 | 1175 |
| July | 138 | 332 | 542 | 837 | 1182 |
| August | 146 | 355 | 593 | 894 | 1242 |
| September | 150 | 372 | 631 | 944 | 1302 |
| October | 158 | 397 | 700 | 1016 | 1354 |
| November | 173 | 413 | 731 | 1046 | 1365 |

Notes: M2 = M1 + Time deposits
M3 = M2 + Passbook savings
M4 = M3 + Federal government bonds outstanding
Source: Boletim Macrométrica

## Table 6

### Monetary aggregates, nominal rates of growth (%)

| Month | Mon. Base | M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| January | 1 | -9 | 4 | 12 | 13 |
| February | 12 | 14 | 19 | 18 | 16 |
| March | 36 | 79 | 28 | 13 | 12 |
| April | 35 | 20 | 8 | 0 | 1 |
| May | 15 | 15 | 8 | 7 | 3 |
| June | 11 | 16 | 10 | 7 | 4 |
| July | 14 | -1 | 2 | 2 | 1 |
| August | 6 | 7 | 9 | 7 | 5 |
| September | 3 | 5 | 6 | 6 | 5 |
| October | 5 | 7 | 11 | 8 | 3 |
| November | 9 | 4 | 4 | 3 | 1 |

Notes: M2 = M1 + Time deposits
M3 = M2 + Passbook savings
M4 = M3 + Federal government bonds outstanding
Source: Boletim Macrométrica

Table 7

Ex-post monthly real rates of return FDR selected assets

(Mar-Dec 1986, percentage points)

| Month | Overnight | C. D. (60 days) | US Dollar (Parallel mkt.) |
|---|---|---|---|
| March | 0.51 | 0.76 | 5.94 |
| April | -0.10 | -0.04 | 14.30 |
| May | -0.71 | -0.33 | 1.57 |
| June | -0.44 | -0.11 | -0.30 |
| July | -0.63 | -0.29 | 12.90 |
| August | -1.94 | -1.67 | -7.29 |
| September | 0.04 | 0.89 | 4.30 |
| October | -0.03 | 0.59 | 13.82 |
| November | -0.43 | 0.41 | -2.50 |
| December | 0.70 | 0.89 | -2.53 |

Source: Gazeta Mercantil

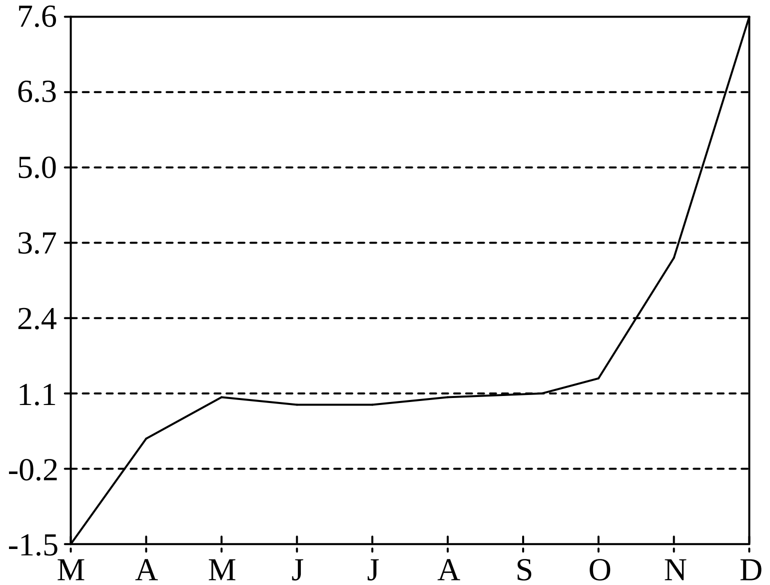
Table 8

Brazil: Trade balance (Jan-Dec 1986)

| Month | Trade Balance | Exports | Import |
|---|---|---|---|
| January | 701 | 1910 | 1209 |
| February | 628 | 1751 | 1123 |
| March | 1136 | 2157 | 1021 |
| April | 1292 | 2172 | 880 |
| May | 1341 | 2292 | 951 |
| June | 1071 | 2000 | 929 |
| July | 1034 | 2209 | 1175 |
| August | 1029 | 2099 | 1070 |
| September | 839 | 1858 | 1019 |
| October | 210 | 1341 | 1131 |
| November | 131 | 1276 | 1145 |
| December | 156 | 1329 | 1173 |
| Total | 9568 | 22394 | 12826 |

Source: Boletim do Bacen (several issues)

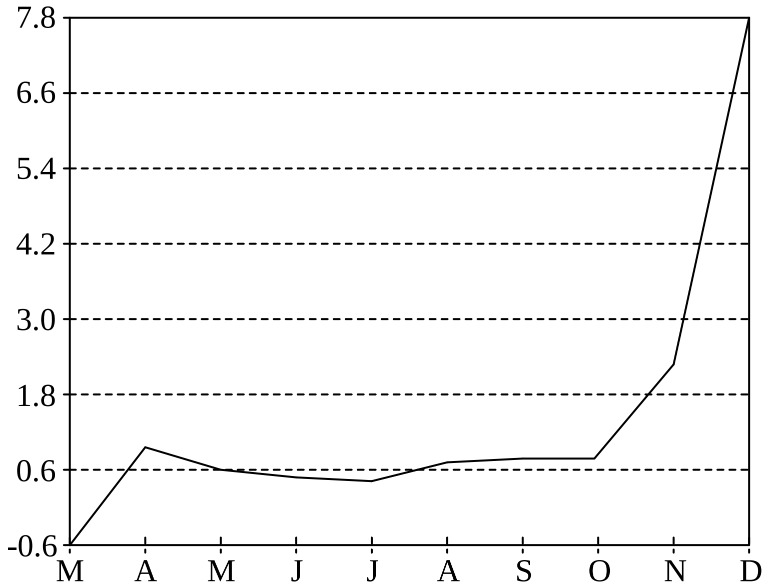
Consumer Prices (INPC – Mar-Dec 1986))




Source: IBGE

Figure 1

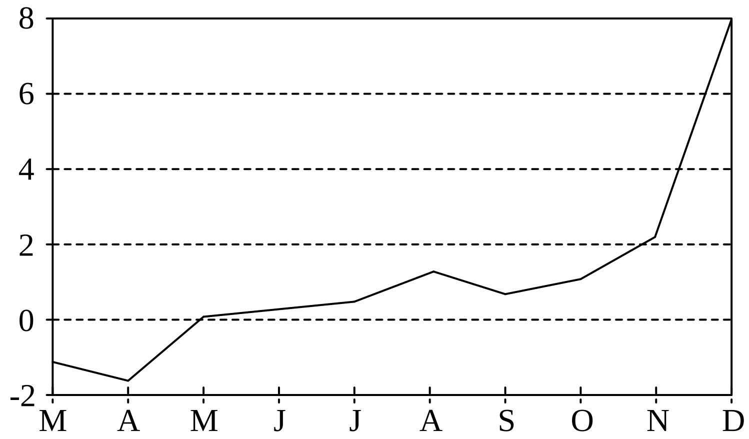
Consumer prices (RJ – Mar-Dec 1986)




Source: FGV

Figure 2

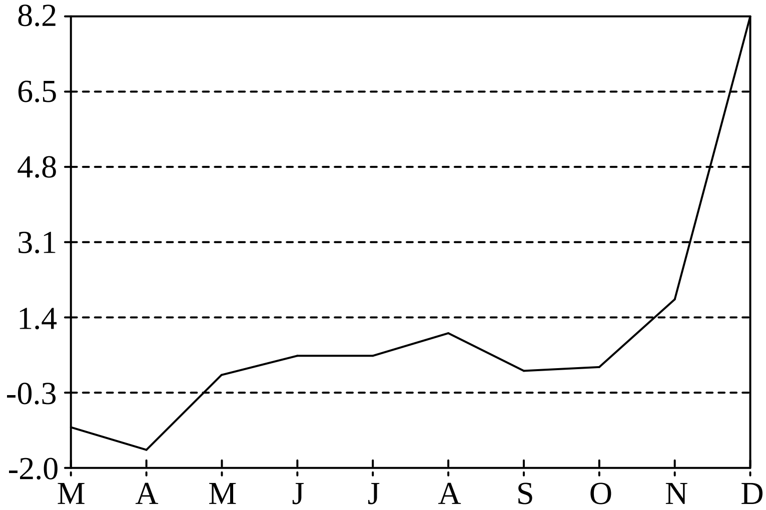
Wholesale prices – Total (Mar-Dec 1986)




Source: FGV

Figure 3

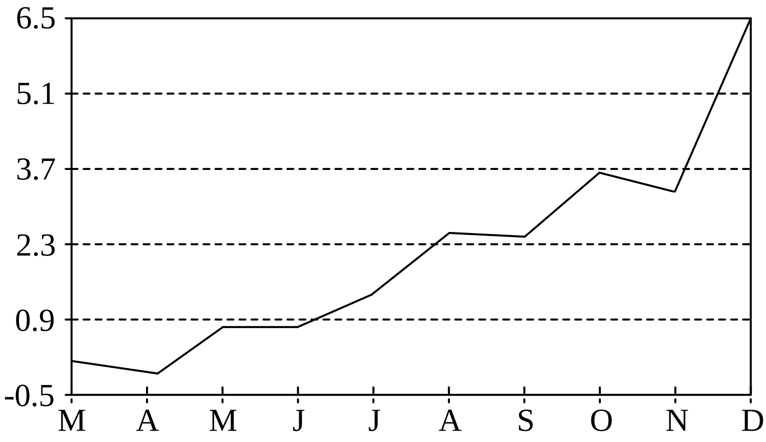
Wholesale prices – Industry (Mar-Dec 1986)




Source: FGV

Figure 4

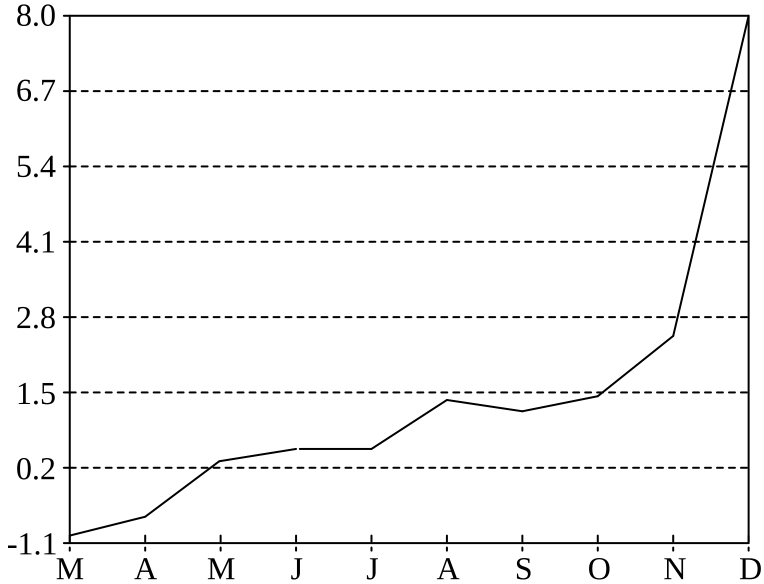
Wholesale prices – Agriculture (Mar-Dec 1986)




Source: FGV

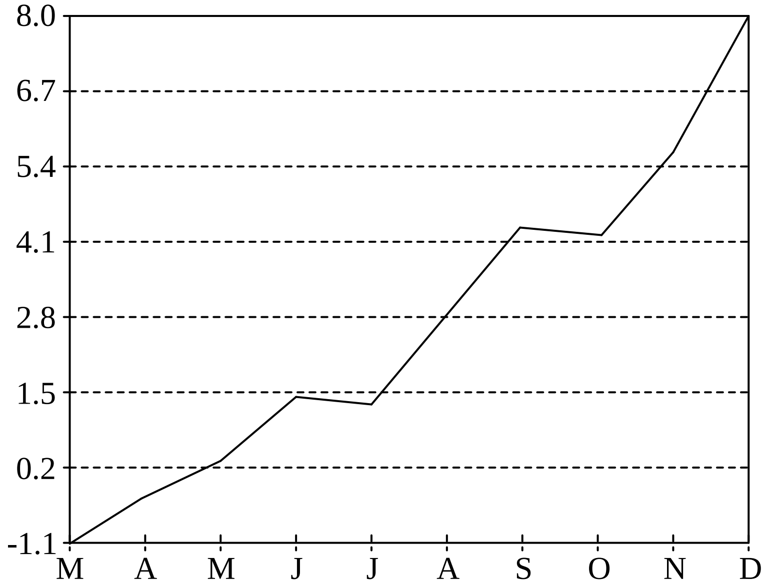
Figure 5

General price index (Mar-Dec 1986)




Source: FGV
Figure 5

Construction price (Mar-Dec 1986)




Source: FGV
Figure 7

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