6

The Contradictions of Brazilian Inflation, 1964–1979

THE THEORY OF INERTIAL INFLATION
Luiz Carlos Bresser Pereira

Any analysis of Brazilian inflation should begin with the assumption that Brazil is an underdeveloped country whose capitalist market is poorly structured. This is the result both of the domination of key sectors of the economy by cartels of oligopolistic corporations and the existence of an economically strong state that has effective instruments to decisively influence the distribution of the economic surplus.

From this point of view, inflation in Brazil is a way of transferring income from the politically weaker sectors, that is, the workers, as well as from the economically less dynamic sectors, to the economically more dynamic and politically stronger sectors, which dominate the process of capital accumulation. Inflation is a battle between the dominant groups for a larger share of the economic surplus, with losses for the workers, the low- and middle-level managers, and the small- and medium-sized firms in the competitive sectors of the economy.

There is one essential condition that is necessary for carrying out this concentration of income: the possibility for the groups that benefit from inflation to intervene in the market and increase their prices, whenever possible, even more than the other groups. This intervention is made possible in Brazil by two mechanisms: (a) the organization of the oligopolistic corporations into cartels, and (b) the action of the state when it subsidizes the more powerful and dynamic segments of the economy.

In relation to the state, we are led to imagine that its objective is to control inflation, but actually it faces a permanent contradiction: the state attempts to combat inflation while it bows to the inflationary pressures of the groups that control it. As a source of inflation and of transferring income to these groups, the state can: (a) establish subsidies for these dynamic groups and then issue currency (this was the classic inflationary mechanism of the populist period); (b) increase credit at negative interest rates in order to finance these dynamic groups (this was the typical mechanism used between 1967 and 1973); and (c) not control prices, or loosen the controls, to the advantage of the oligopolistic groups (this was the typical policy between 1974 and 1979).

According to this viewpoint, inflation is an economic phenomenon whose political component is essential. Inflation would accelerate in proportion to the aggressiveness of the groups that control the state and to the resistance of the dominated groups. When there is a relative balance of political forces, as in 1962-1963, inflation tends to be explosive. When the capitalist group manages to obtain unlimited domination over the workers, as was the case from 1964 to 1974, inflation tends to be reduced, with the workers paying for the deceleration of inflation with reduced wages. After the elections of 1974, when the workers regained some political weight, inflation began to grow again.

Contrary to what is predicted by orthodox economic theory, but consistent with the theory of inflation based on administered prices, inflation would tend to go up in a descendant phase of the cycle and to go down during an ascendant phase. This is because, when there is a decline, the fight to maintain a relative share in the economic surplus is much greater than during expansion. When production and productivity are growing, it is easier for some of the groups to cope with the losses that come from the policies for stabilizing prices, because, in this case, they lose only in the sense that they do not gain as much.

Implicit in this hypothesis is the assumption that an anti-inflationary policy can only succeed in Brazil when it forces one group to pay for inflation by not allowing it to raise its prices proportionately. In principle, this group has been the workers. It could be the agricultural export sector, as happened in the 1950s, small and medium companies of the traditional capitalist sectors that produce basic consumer goods, as happened after 1964, or finally public servants and lower-level military officers (or rather the low- and middle-level governmental technobureaucrats, as has happened various times).

1

The highest rates recorded for Brazilian inflation before the upsurge of the 1980s were between 1963 and 1966, reaching a peak of 91.9 percent in 1964.[1] For 1963, we can see a correlation between the high inflation rate and the political and economic disorganization of that period. However, we cannot do the same for the following years, during the Castelo Branco government, when an orthodox anti- inflationary policy was adopted based on a mistaken (demand pull) diagnosis of the basic causes of infation at that time. The costs of the restrictive monetary and fiscal policies were high in terms of unemployment and of a reduction of the growth rates. The results, in terms of deceleration of inflation, can be explained by the severe cut in real wages rather than by the orthodox economic policy.

From the moment that Delfim Netto became the minister of the treasury in March 1967, there were changes in the economic policy. Inflation was considered to be cost push, and a policy to stimulate demand and control oligopolistic prices was pursued. The inflation rate continued to fall, going from 38.8 percent to 24.4 percent from 1966 to 1967 (see Table 6.1). Once it stabilized around this rate, the government did not show much concern for reducing it to even lower levels. Beginning in

Table 6.1 Inflation - Annual Rates

Year	FGV(a)	DIEESE(b)
1960	30.5	32.9
1961	47.7	42.2
1962	51.3	62.4
1963	81.3	86.7
1964	91.9	72.9
1965	35.5	53.9
1966	38.8	52.3
1967	24.3	25.9
1968	25.4	26.1
1969	20.2	22.3
1970	19.2	16.5
1971	19.8	24.8
1972	15.5	22.5
1973	15.7	26.7
1974	34.5	35.2
1975	29.2	28.5
1976	46.3	44.2
1977	38.8	39.2
1978	40.83	40.12

December of each year over December of the preceding year.
Source: (a) Getúlio Vargas Foundation (FGV) - General Price Index - Domestic Availability (col. 2)
In: *Conjuntura econômica*
(b) DIEESE - Cost of Living Index (Inter Union Department of Socio Economic Statistics and Studies - DIEESE).

1967, the national product began to grow again at a considerable rate. Thus, we entered the period of the "Brazilian miracle," during which profits and salaries, as well as private and state accumulation, grew at unprecedented rates while wages stagnated.

In the 1950s, the debate on inflation was between the "monetarists" (actually, neoclassical orthodox economists) who attributed inflation to causes exogenous to the economic system that were reflected in deficits and the issuing of currency, and the structuralists, who saw inflation as a phenomenon inherent in the standard of capital accumulation of that time.[2] These positions are opposites, especially in terms of the measures they recommend for controlling inflation. The orthodox advocate the possibility of eliminating inflation, while the structuralists affirm the need to live with a moderate inflation rate. However, they do agree when they explain inflation in terms of demand. That is, both consider an aggregate demand greater than supply to be the cause of inflation. However, this does not make sense during a period of crisis or economic recession, as was the case from 1962 to 1966.

At the beginning of the 1960s, we first saw the phenomenon of the coexistence of inflation with economic recession in Brazil. This phenomenon would also occur at the end of the decade in the central countries and then be called stagflation. It was observed in Ignácio Rangel's pioneering book *A inflação Brasileira* (1963). He noted that there was a decisive cost component in Brazilian inflation. Corporations were contantly being threatened by their idle capacity and overproduction, which was caused by the unbalanced distribution of income in Brazil and especially by lack of effective demand because of the exclusion of almost the whole rural sector from the market. They were taking advantage of their oligopolistic position in the market and raising their prices autonomously, that is, without any previous increase in demand. Because the demand curve faced by the corporations as a group was inelastic, price increases implied a relatively small reduction in the amount sold. Thus, the corporations caused inflation to accelerate by increasing their markups and prices as a way to defend their profits. Therefore, we were faced with administered or cost inflation, which is perfectly compatible with recession.

However, Ignácio Rangel's analysis had few repercussions. The orthodox economists of the Castelo Branco government ignored it completely. They dealt with inflation in terms of demand and, while they called their policy "gradualist," they adopted drastic measures for reducing consumption, real wages, the working capital of the corporations, and the government deficit. Naturally, the result of all this was a recession. However, faced with pressure from business and from the middle class, they soon relaxed controls. This happened in the second semester of 1965, when the taxes for durable consumer goods were temporarily reduced. Perhaps because of this, its policy could be called "gradualist."

It was a patchy gradualism. The orthodox economic policy, copied from North American and British economic text books, had much less effect than expected, while at the same time the economy began to stagnate. Moreover, this stagnation provoked a large trade surplus in 1965 and 1966 because the industrial sector did not feel stimulated to import machines and raw materials. Ironically enough, the financing of this surplus fed back into inflation. In other words, orthodox anti-inflationary policy provoked a recession, because it led to a reduction in the demand for imports and, concomitantly, to a surplus in the balance of trade. The need to finance this surplus, that is, to buy the foreign exchange credits of the exporters, led the state to print more currency, thus sanctioning the current level of inflation.

Before Delfim Netto became treasury minister in 1967, he made a study of Brazilian inflation. He took a position different from that of the monetarists, explaining it with four variables that are independent of each other: the state deficit, wage readjustments, exchange devaluations, and the inflation of the previous year.[3] Of these, the two cost components for explaining inflation are wage readjustments and the exchange devaluation, which were not given much importance in this book.

However, when he was named as minister in 1967, he was faced with inflation and recession at the same time. In spite of being a mostly orthodox economist, he did not hesitate to emphasize the cost component in Brazilian inflation and adopted a similar diagnosis to the one elaborated by Rangel. Thus, he relaxed the credit restrictions that had been imposed earlier and went on to control the inflationary process through administrative price controls. The Interministerial Price Council (CIP) was created to carry out this task.

His acceptance of the concept of administered inflation was clear. The government even stated it in its own development program (*Programa Estratégico de Desenvolvimento*) in July 1967: "In this latest phase, inflation has continued, in spite of a retraction in demand, because of the influence of certain costs, the increase in interest rates, the increase in average prices resulting from lower sales, and the reaction to expectations."

As a result of this analysis, the government changed its strategy for fighting inflation, clearly subordinating it to the greater objective of promoting the accumulation of capital. When inflation has a cost component, it is basically functioning as a defense mechanism for the monopolistic or oligopolistic corporations against a retraction in demand. Therefore, it was necessary to stimulate demand and to stimulate economic activity. This was done by a more liberal credit policy for the private sector, stimulating investment, and by an increase in the salaries of the technobureaucrats, and stimulating consumption, especially of durable goods.

Although the government did not present large budget deficits, it continued to increase the levels of credit and to issue currency to avoid an economic recession. The nominal increase in the money supply contributed to maintaining inflation at a annual rate of around 20 percent.

On the other hand, since administered inflation is based on autonomous price increases that do not reflect an increase in demand, it depends on the dominance of oligopolistic or monopolistic markets. In these markets, competition does not function. This explains the great emphasis the government gave to the CIP. Instead of controlling prices at the retail level, which was totally inefficient, the CIP went to the source of the high prices and initially began by controlling the prices of the 350 largest Brazilian corporations, a number which increased over the years. In other words, the CIP began to control the prices of the oligopolistic and monopolistic corporations in Brazil. When dealing with a reduced number of corporations, administrative control is feasible. In this way, the CIP became a powerful instrument for controlling inflation. Setting the banks' interest rates can be included in the same line of action, since interests on circulating capital are costs, and banks in Brazil form an oligopoly.

In this way, the anti-inflationary policy between 1967 and 1973 had little to do with that of the previous government. It was a policy of living with inflation that was maintained at acceptable levels through the administrative control of prices and the systematic attempt to cut the workers' wages. The emphasis was put on the growth rate of the system and on increasing exports. As long as inflation provoked a reduction in wages, a moderate inflation rate particularly favored the process of accumulation.

At the beginning of the 1970s, the economy was in full expansion and could no longer count on idle capacity. The rate of capital accumulation increased at the same time that the growing salaries of the technobureaucrats stimulated the consumption of luxury industrial goods. In 1973, the pressures from an aggregate demand greater than supply were already felt. The acceleration of the inflation rate received a new impulse from an external supply shock: the increase in the prices of oil and other imported products.[4]

Because of the relatively high inflationary pressures, at the beginning of 1974 the new minister of the treasury, Mário Henrique Simonsen, decided to adopt a policy of violent credit restriction, thus returning to a diagnosis of demand inflation.

2

When studying the causes of inflation in Brazil, economists are divided into various camps. In order to analyze this problem, it is first necessary to distinguish between long- and short-term causes.

As for the long-term causes, we should return to the old, but not worn-out, debate between the structuralists and the orthodox, which takes us back to the 1950s. In the 1950s, the neoclassical orthodox economists, who are generically called "monetarists" in Latin America, were not working for the government. They explained inflation very simply. It had one exogenous cause: the demagoguery and administrative incapacity of the Brazilian governments of that time, which incurred constant budget deficits and increased credit as it tried to satisfy all classes and social groups in a populist way. This subsequently provoked the need to finance the budget deficit by a continuous expansion of money.[5]

Meanwhile, the structuralists, who generally occupied government posts, asserted that inflation was an endogenous phenomenon, resulting from the imperfections of markets typical of industrializing countries.[6] These imperfections manifest themselves as bottlenecks in supply. Given a sudden increase in demand or an unexpected fall in the production (supply) of certain goods, prices rise in these sectors. However, contrary to what happens in the advanced capitalist countries, when prices go up in a certain sector of the economy, supply does not respond immediately, either through an increase in internal production or through imports. Thus, the prices of that sector do not immediately return to their previous level, leading the other sectors that use inputs from that sector to raise their own prices so that they will not suffer losses. In this way, a sectorial price increase because of a bottleneck in supply spreads to the whole economy, causing a generalized inflationary process that forces workers to demand readjustments of their wages. At first, there is a variation in relative prices, but as these prices don't return quickly to their initial level, because of the structural deficiencies of the market, the other economic agents are led to increase their prices to defend their income share. Thus, an inflationary process is set off that can only be stopped if some sectors of the economy are prevented from defending themselves. Then these sectors absorb the price increases or, in other words, "pay the bill" for inflation. In Brazil, the propagation or feedback effect is especially significant because it is already institutionalized by the system of indexation or monetary correction of prices, interest rates, exchange rates, and wages. It is true that the monetary correction is not full and complete. If it were, inflation would be absolutely rigidly downwards because no class or sector of the economy would absorb the losses of a stabilization policy.

In these terms, once a sectorial inflationary process is set off, the propagation effect, or the feedback mechanism of inflation, generalizes and maintains inflation at a new and higher level. The economic system is turned into a battlefield on which all try to defend themselves from higher prices by passing on cost increases to prices or, whenever possible, increasing their own prices before their suppliers do.

Once these mechanisms of propagation are started, they tend to become permanent, maintaining the new level of inflation. First, they accelerate the rate of inflation, then they keep it independent of the existence of excess demand. The accelerating effect will be exhausted unless new inflationary shocks occur, either because of the monopoly power of some sectors or the appearance of new structural imbalances between supply and demand in specific sectors of the economy. As long as these new imbalances cannot be corrected immediately, and it takes time for supply to meet demand, we will have a new inflationary acceleration.

The agricultural and import sectors were cited as examples of sectors where bottlenecks in supply tend to initially occur. That is, given the permanent lack of foreign currency, which characterizes underdevelopment, especially during the import substitution phase, the tendency is for their prices to be under constant pressure to rise. Another structural cause of inflation is the political incapacity of the government to raise taxes in proportion to its increase in expenditures, which arise from the state's increasing intervention in the economy to stimulate accumulation.

As for agriculture, some structuralists pointed out the low elasticity of the supply of agricultural products, but the orthodox economists showed econometrically that this was not the case, at least in southern Brazil. In fact, there is no reason for the supply of agricultural products to be inelastic in relation to prices. The hypothesis that the agricultural sector is precapitalistic in Brazil and in the other underdeveloped countries is dubious. It is only in very economically backward areas, such as in certain regions of the northeast of Brazil, that supply does not respond well to price increases. This is mainly the result of a lack of information and, secondarily, of insufficiently developed capitalist relationships of production.[7]

Strictly speaking, for the structuralist theory of inflation, it is not necessary that the supply of agricultural products have low price elasticity. All that is needed is a time lag in the response of supply to an increase in demand. A time lag that is longer than acceptable for the other economic sectors will be enough for the prices of the other sectors to go up as well. The agricultural sector is only one example of a source of structural inflation. Any other sector in which there is a monetary bottleneck in supply can provoke inflation, as long as that time lag is long enough for the propagation effect between a sectorial price increase and the response of supply to set into motion a generalized price increase.[8]

3

The most important aspect in the debate between the monetarists and the structuralists is the question of the endogenous or exogenous character of the money supply. The money supply will be either a cause of inflation or a sanctioning factor, depending on the following alternatives: a money supply decided on by the government, or a money supply resulting from economic forces.

Monetarists consider it to be exogenous because its origins are outside of the dynamics of the economic system and in the area of politics—a decision of the government or of the central bank—as if it were possible to make a clear separation between politics and economics. As a result, they propose an obstinate battle against inflation through rigid restrictions of the money supply and a balanced government budget. When these measures, which are copied from the economic policies of the central countries, are adopted, they are not upheld for long. In the central countries, given that the workers are organized into strong unions, the only way to contain increases in wages during periods of expansion and inflation is by orthodox monetary measures that increase unemployment. But in countries like Brazil, the capitalists do not need this instrument, which is also painful for them, to control wages. That is why fiscal and monetary restrictions tend to be quickly abandoned.

On the other hand, endogenous structuralist inflation is that which results from the structure and dynamics of the economy itself. It comes from the imperfections of the market that characterize the process of accumulation in a technobureaucratic-capitalist country of the periphery like Brazil. The imperfections of the market are manifested either in sectorial bottlenecks in supply, which cause the acceleration of structural demand inflation, or in an eminently oligopolistic and cartelized economy, which create the conditions for an administered acceleration of inflation. Once reaching a certain level, inflation tends to be maintained at this level through the permanent propagation effect, given the distributive conflict. In order to avoid a liquidity crisis, the money supply should increase at the same rate as inflation.

The more oligopolized the economy, the more important will be the administered component of inflation. Although antitrust legislation formally exists in Brazil, cartels are openly tolerated, and the weight of the administered component is enormous. It becomes even greater when we remember that the state, either directly or through its corporations, also has monopoly power over the market and sizable weight in the country's economy.

Given the endogenous character of inflation, it is clear that curing it is not so simple. It is necessary to attack the bottlenecks, which is a long-term problem, and to avoid as much as possible autonomous or administered price increases, which is a difficult task. As a result, it is necessary to know how to live with inflation. This does not mean that there is any positive correlation between development and inflation, or any negative one, unless it becomes explosive. It does not mean that monetary and fiscal policies should not be used against inflation, as long as they are moderate. It only means that a certain inflation rate acts as a lubricant for the economic system. Since the economy resists recession very much—on one hand, there are no unemployment benefits; on the other, capitalists do not need recession to lower wages, which are already very low—the nominal money supply increases endogenously in order to maintain the level of the real money supply. If the government does not issue currency, the banking system increases its nominal credit supply to its good clients.

4

Although administered inflation is related to the structural imperfections of the market, it differs from the structuralist approach because the accelerating factors are sectorial supply shocks instead of sectorial demand shocks. It is caused by the capacity of corporations and of organized workers to increase profit margins or real wages above the increase in productivity, even if demand is weak. The essential condition for this kind of inflation is the existence of monopolistic power. Then inflation can occur, even during an economic retraction, as happened in Brazil in 1962 and 1966 and in the central countries at the end of the 1960s and in 1974.

This kind of inflation is also known as cost inflation, although this is not a correct name and is marked by strong ideological connotations. It was coined in the central countries and suggests that inflation is caused by an increase in the costs of the corporations. Strictly speaking, there are only two kinds of costs in an economy: wages and profits (profit is a cost within the system). Wages would be the only cost of the corporations that is not determined by them. Thus, this type of inflation would be determined mainly by the actions of the trade unions. If this idea is only partially true for the central countries where the trade unions are strong, in underdeveloped countries like Brazil it is unfounded, given the subordination of the workers' organizations to state control.

By defending their profits during recession and increasing them during prosperity, the oligopolistic corporations autonomously increase their prices, and the banks, which are also oligopolistic, their interest rates. If we consider profit to be a cost, we can adopt the name of cost inflation. In the meantime, administered inflation seems to be a less ambiguous name. When the large corporations have monopoly power, they administer their prices, and thus set off inflation. The state also does this, not only through its corporations, but also by directly setting prices. A tax increase is theoretically anti-inflationary. However, if it is used to increase state expenditures, it becomes inflationary. Increases in the charges for public services also have a very clear inflationary effect.

Intervention by the government to set prices, which in principle are defined by the market, are more significant and paradoxical. The asserted objective of these interventions is to control prices and inflation. There are certain moments, however, when a real wage increase, such as that declared by the Brazilian government in November 1974, just before its defeat in the elections, has a clearly inflationary character. In the same way, the government policy of systematically reducing wages, which was enforced up to that year, was anti-inflationary. Also, the CIP itself, which was created to prevent autonomous price increases, can, at certain times, end up stimulating and sanctioning them.[9] It all depends on the power of the different economic sectors in relation to the state.

When, as in the case of Brazil, inflation has a strong price administration component, there tends to be a clear inverse relation between the growth rate of the economy and the inflation rate. This is a fact that was clearly perceived by Ignácio Rangel, and which has been recently confirmed. In 1962, a process of economic crisis began in Brazil, at the same time in which the inflation rate was going up. Then, between 1967 and 1974, inflation decelerated while the country experienced extraordinary growth rates. When the economy decelerated, between 1975 and 1979, it was accompanied again by a clear acceleration of inflation.

Anti-inflationary policies work better during expansive phases of the cycle for two reasons: because the bottlenecks of the economy are partially overcome, and because, at these moments, it becomes viable to reduce the inflation rate without needing to choose a group to absorb all the costs of an anti-inflationary policy. This is possible as long as the increases in production allow this absorption to occur without resistance from those who suffer the losses, or as long as everyone is benefitting from the increase in productive efficiency.

5

These kinds of inflation are not exclusive. There is no reason for the accelerating causes of inflation to be only structural, Keynesian demand push, or administered. A generalized and persistant increase in prices can easily be determined by a combination of these causes. During prosperity, the first two should be dominant; during a recession, it is administered inflation that should play a more important role. But there is nothing to prevent the occurrence of bottlenecks during a recession. On the other hand, while during prosperity it becomes even easier for the oligopolistic corporations to increase their profits margins, they probably will not do that, as this is behavior typical of firms in the competitive sector. But in special situations, oligopolistic corporations can also increase profit margins during the expansive phase of the economic cycle.

We can mention other secondary causes for the acceleration of inflation. There is imported inflation, when the prices of imported goods rise rapidly. For example, with the increase in the price of oil in 1973, all of the oil-importing countries imported inflation. There are people who talk about psychological inflation, characterized by inflationary expectations, that leads some corporations to increase their prices before the others.

This psychological inflation caused by expectations, however, is not exactly a cause for the acceleration of inflation, but rather a euphemism for expressing a very simple fact. No matter what the causes of inflation are—structural, monetary, or administrative—it will always have a basic cause: the struggle by corporations and social groups to increase their share of the surplus. Inflation is the result of a fierce battle for the division of the economic surplus. Those who are capable of increasing their prices more and before the others, those who take the front line in the inflationary process, will certainly be its beneficiaries. Once inflation reaches a given level, it can attribute its maintenance at this level to expectations. But, contrary to what monetarists think, expectations in this case are based on past inflation and thus on the distributive conflict.

This conflict takes place on a broader level between social classes. In the underdeveloped countries, inflation itself is the way in which capitalists reduce the real wages of the workers. They create what their ideologues call "forced savings," but which are really an increase in the corporations' profit rates.

During the import substitution period in Brazil, inflation was also used to transfer income from the exporting sector to the industrial sector, using the exchange rate as an intermediary mechanism. It had been maintained at a fixed rate for long periods, while internal inflation progressed at an accelerated rhythm. This resulted in an artificial valorization of the national currency and a transfer of income from exporters to importers. Later, in the 1970s, when exports received priority, a real devaluation of the cruzeiro became necessary. Although this devaluation did not take place, another way was found to promote exports: by reducing real wages, using the acceleration of inflation. This policy was not necessarily deliberate on the part of government officials, but it reflected the power of the different pressure groups.

It is significant that between the 1950s and the 1970s a curious inversion took place. Inflation was basically an instrument that the capitalists and technobureaucrats used to reduce the workers' wages. However, the official version was something else. Wage increases were considered to be a cause of inflation. Administrative control of wages and of the salaries of the lower-level government employees was defined as the way par excellence to fight inflation. In the meantime, the high salaries of the upper-level technobureaucrats were left free to grow, according to the political power of the technobureaucrats and to their relative scarcity. If we assume that the share of salaries in the income remained constant, then during certain periods, that of profits must have increased as wages were reduced.

Up until the mid-1950s, aside from transferring income from the workers to the capitalists through the lowering of real wages, inflation also transferred income from the exporting sector—the coffee growers—to the industrial sector and to the state itself via the exchange system. At this time, with the progressive exhaustion of the import substitution model at the same time in which the export system entered a crisis, the local industrial bourgeoisie consolidated itself at the top of the dominant class, the multinational manufacturing corporations entered the country en masse, and the *estado cartorial* transformed itself into a state that produces and regulates the economy.[10] Hence a new pattern of accumulation was defined: the underdeveloped industrialized model. In this setting, beginning with the Kubitschek government, inflation played the role of transferring income to the dynamic sectors of the economy, not only through a reduction of real wages, but also through the mechanism of subsidized credits.

This system generalized itself after 1964 when the state became stronger politically. It put together an extraordinary system of fiscal and credit subsidies in order to favor those sectors or activities that were considered as priorities by those who were formulating economic policy. Since they were exempt from monetary correction, the credit subsidies were especially dependent on the inflation rates. Exporters of manufactured goods, big farmers, producers of capital goods and raw materials, supermarkets, and the food industry are among those who received subsidized credits. Bankrupt financial institutions also received them. Personal criteria were added to the impersonal criteria of economic policy. Usually it was the larger corporations in each sector that benefitted the most, as they had the best administrative conditions and more political influence at their disposal.

Because interest rates were fixed in nominal terms, the higher inflation went the lower or more negative was the real rate, and the greater the subsidies. For the beneficiary sectors, the higher the inflation rate went, the better it was. The transfer of surplus to these dynamic or influential sectors was in direct proportion to the inflation rate. In these terms, by waving a magic wand, Brazilian state capitalism changed inflation from a dangerous evil to a political and economic instrument aimed at maximizing the accumulation rate of the sectors that had priority in the economy.

The pressures that were put on the state to maintain an elevated inflation rate did not come only from the need to keep the real money supply stable and from the interests of the industrial sector in maintaining the level of investments of the state at a high level. They also come from the interests of the corporations that were favored by subsidized credits at negative real interest rates. Inflation was thus built into the very logic of the model of industrialized underdevelopment.

Inflation was the result of a strategy of the more dynamic capitalist groups to increase their profits and their rate of accumulation.[11] While the technobureaucrats developed an eminently administrative strategy for increasing their share of the total income, attempting to directly increase their salaries, the capitalists used inflation to reduce the wages of the workers and to neutralize salary increases, and thus to increase their profits.

6

The structural nature of Brazilian inflation has become clearer in recent years. Here we are giving the term "structural" a wider meaning than just that which identifies the causes of inflation with sectorial bottlenecks in the supply of goods. Inflation in Brazil is structural because it is built into and is inherent in the present pattern of accumulation. It is structural because it is the outcome of a permanent distributive conflict. The imperfections in the market and the imbalances of political power between the different social and economic groups tend to accelerate inflation. In order to not lose in the distributive conflict, those who can, automatically pass on cost increases to prices, which rigidly maintains the given level of inflation.

Because the monetary authorities since 1974 did not understand the complex and structural nature of Brazilian inflation, they did not achieve the results they desired with the measures they adopted. Inflation actually recovered its ascending rhythm in 1973 after a long period of decline. At this point, demand inflation and administered inflation joined forces.[12]

The new government, which was installed in 1974, was counting on a minister of the treasury with an orthodox neoclassical orientation, Mário Henrique Simonsen. His position, at least at the beginning of this government, was to not believe in administrative mechanisms for controlling inflation, but rather to prefer the classical mechanisms of fiscal and monetary restrictions. In keeping with this position—which later became more flexible—in the first months of his administration he decided to undertake a policy of restricting credit. As a result, the Brazilian economy underwent a recession during the second half of 1974 and the first half of 1975. It was not a very deep economic crisis, but one in which the inflation rate continued to grow. The liquidity index of the economy fell precipitously until February 1975, when the government, faced with pressure from the corporations, decided to release credit again, mainly by compensatory refinancing. Thus, a phase of large profits for the banks and an acceleration of inflation began. The economic system itself did not react right away. But in the second half of 1975 it had already entered into a new cycle of prosperity. We found ourselves in the midst of a stop-and-go policy.

In the middle of 1975, we were still in an economic recession. The government continued to try stimulating demand in spite of the eventual acceleration of inflation. The new expansion was only perceived by the economic authorities in January or February 1976. Once more, inflation was immediately diagnosed as being of demand. As a result, new measures were imposed to restrict credit. However, these measures had little effect for one year; this time they did not even manage to control inflation, much less reduce economic activity. Although the index of the real liquidity of the economy began to go down again in January 1976, the large amount of speculation, as verified in the open market, increased the circulation of money and cancelled the monetary restrictions imposed by the government. It was only in the first half of 1977 that the economy began to show signs of cooling off. Industrial production, which according to the FIBGE showed a growth rate of 12.85 percent and 12.33 percent in December 1976 and January 1977, respectively, in relation to the previous twelve months, had already gone down to 8.41 percent and 7.48 percent in May and June 1977, respectively. Meanwhile, until May 1977, the inflation rate continued to rise, undergoing its first reduction only in June. This reduction confirmed itself in July and August when the inflation rate went from a monthly average of above 4 percent to a rate of 1.3 percent (see Table 6.2). This strong reduction in the inflation rate followed a series of heterodox administrative measures, which Simonsen finally took in May 1977. Among these was a freeze in the price of gasoline, a very firm action on the part the CIP, and the limitation of the price increases of the state corporations to 25 percent a year.

All of these facts contribute to making it very clear that there is a strong component of costs, or administered inflation, in Brazilian inflation, notwithstanding the component of demand. Therefore, it is necessary to make clear that demand inflation and administered inflation are compatible. They can both overlap and strengthen each other.

Demand inflation does not occur only because of an excess of money or because of sectorial shortages in supply. There is also Keynesian inflation, which occurs when the real aggregate demand exceeds supply at the peak of an economic cycle. This was probably what happened in Brazil in 1973. There are various reasons for real aggregate demand exceeding supply: (a) large investments made by the government; (b) large investments made by the private sector; (c) optimism and an increase in consumption by consumers. Any of these can cause the economy to warm up and then go on to grow rapidly. As the idle capacity disappears, and as the increase in production does not manage to accompany the increase in demand, profit margins and wages begin to rise in an inflationary manner. From 1974 to 1976, investments by the state continued to sustain a strong expansion of aggregate demand by putting pressure on prices while private investments were falling off. At the beginning of 1977, when the government noticed that the state financial resources, which had been abundant from 1967 to 1973, were beginning to be short at the same time that they were feeding inflation, a big cut in investments was announced. While this cut was sponsored by the ministry of the treasury, it was opposed by the other areas of the government, especially the public corporations. All sorts of pressures were put into action again, in order to sustain the economic activity, profits, and salaries.

Aside from being demand administered, Brazilian inflation in 1976 also had a component that was related to the real wage increases of 1975. These increases were inflationary because the corporations were not, and never are, willing to reduce their profit margins. Wage increases above the increase in productivity can only be absorbed without being inflationary if the corporations reduce their profits.

Because Brazilian inflation is a structural process endogenous to the system, it is dangerous to think that it can be done away with in a short

Table 6.2 Inflation - Monthly Rates

Month	1974		1975		1976		1977		1978	
	FGV(a)	DIEESE(b)	FGV	DIEESE	FGV	DIEESE	FGV	DIEESE	FGV	DIEESE
Jan.	2.77	2.07	2.24	2.63	3.18	4.80	3.66	5.29	2.67	4.33
Feb.	2.69	3.89	2.19	2.18	4.07	5.82	3.24	2.47	3.40	4.11
March	4.53	4.69	1.61	2.39	3.77	3.85	4.07	4.75	3.27	3.57
Apr.	5.25	5.13	1.76	2.85	3.64	4.96	4.08	6.36	3.38	1.62
May	3.47	1.84	2.07	0.72	3.51	2.32	3.58	1.59	3.20	2.68
June	1.88	0.64	2.20	2.83	2.66	0.71	1.97	1.24	3.62	4.07
July	1.23	1.45	2.15	3.45	3.77	2.40	2.10	1.81	2.85	3.42
Aug.	1.21	1.89	2.76	3.66	4.09	4.21	1.27	1.10	2.67	2.40
Sept.	1.80	2.46	2.37	1.93	3.38	2.77	1.80	2.95	2.56	1.59
Oct.	1.38	2.46	2.16	1.71	2.43	2.37	2.69	1.78	2.83	3.01
Nov.	1.55	1.84	2.26	0.35	1.85	1.49	2.62	2.69	2.75	2.26
Dec.	2.29	2.25	2.07	0.66	2.33	1.62	2.11	1.69	1.54	1.21

Sources: (a) Getúlio Vargas Foundation (FGV) - General Price Index, Domestic Availability (col. 2) In: Conjuntura econômica, nº 3, Vol. 30, March, 1976; nº 7, Vol. 31, July, 1977. (b) DIEESE - Cost of Living Index (Interunion Department of Socioeconomic Statistics and Studies - DIEESE, 1977).

period of time. If inflation is structural, the Brazilian economy must live for years with a certain inflation rate. Obviously, however, there is no need for this rate to be 40 percent per annum. Rates of 15 percent to 20 percent are sufficient for making the adjustments in the system.

7

In order to control inflation, it is undoubtedly necessary to adopt the classic means of fiscal and credit restrictions, with moderation, when the demand component is obvious. On the other hand, when the government has a budget deficit while the economy is functioning at almost full capacity, it is necessary to reduce expenditures, or, preferably, to selectively increase taxes. Tax increases have the advantage of being able to be less indiscriminate, thus making a better distribution of the income possible. Aside from this, government investments can be maintained while the consumption of luxuries is cut. Meanwhile, it is necessary to make it clear that, while contractionary monetary and fiscal measures are only justified when there is pressure from demand and an unbalanced budget, administrative price control is necessary under any circumstances in a cartelized economy like that of Brazil.

Certainly, it is theoretically possible to reduce inflation by using only monetary means. Money is the oxygen and lubricant of the economy. If the monetary authorities succeed in reducing the real money supply, prices become stabilized, even if inflation has structural causes or a strong component of administered prices. We know that there is a strong correlation between prices and the money supply. When prices are increasing autonomously and forcing the monetary authorities to increase the nominal money supply, if these authorities were capable of not carrying out this increase, prices would become stabilized. However, this would only be possible through the creation of an enormous liquidity crisis and a strong recession. As long as only the symptoms of inflation are prevented from appearing, rather than the causes being fought, only a serious, permanent recession can contain prices. Underdeveloped countries like Brazil have much less tolerance for recessive monetary policies than the central countries for two reasons: first, because they do not have unemployment insurance, so that large-scale unemployment is catastrophic; second, businessmen do not support the recessive measures because they do not need them to control wages. When inflation threatens to increase in the central countries during the expansive phase of the cycle, the corporations support recessive measures in order to prevent—as the industrial reserve army is eliminated—wages from growing faster than profits. In Brazil, given the existence of massive underemployment, businessmen are not afraid of an increase in wages, and so they do not support the orthodox policies for controlling inflation. On the other hand, the government has neither enough power nor enough real interest to go against the interests of the dominant class. Therefore, anti-inflationary policies have a short life span.

If inflation has administered components, the only logical way to contain it is by controlling prices. The CIP is a system that was intelligently planned, considering that its objective was to control the prices of the products of the oligopolistic corporations. However, since 1974, it has had so many of its functions taken away that it has often been unable to be an effective instrument for controlling prices. It was only in May of 1977, when the monetary authorities seemed to be desperate when faced with the systematic failure of their monetary methods for fighting inflation, that they decided to firmly adopt administrative anti-inflation methods. But in August 1977, when the general price index of the Getúlio Vargas Foundation went down 1.3 percent and the wholesale price index 0.9 percent, the president of the central bank, Paulo Lyra, in keeping with his neoclassical orientation, "named the containment of demand and the cooling off of the economy as the best reasons for anti-inflationary success. However, he recognized the importance of what is considered to be a key factor by various analysts, the rigid control of critical prices."[13]

Actually, what the anti-inflationary economic policy has clearly shown is that orthodox measures for containing credit are effective for reducing the growth rate of the economy, but not for controlling inflation. Pressure from the oligopolistic groups that make up the most dynamic sectors of the economy, as they try to increase their participation in the economic surplus, thwarts the monetary measures. What is more serious, however, is that these sectors could also thwart administrative measures while the government is under their control.

It is at this point that we perceive the political basis of Brazilian inflation. In 1977, the government limited the rate of salary increases of civil servants to 30 percent while inflation was more than 45 percent, and controlled the prices of public corporations. By this action, it seemed to have decided to make the lower- and middle-level state technobureaucrats pay the bill for controlling inflation along with the workers, since that year nominal wage increases were set by the government at rates that were lower than the increase in prices. As new elections would only take place at the end of 1978, this policy did not seem to be risky. As for making the state carry the major part of the burden of the anti-inflationary measures through a reduction in the profits and investments of the public corporations, everything shows that these are the political results of a campaign against the state-run enterprises started by the bourgoeoisie in 1975. Once more, politics and economics are dialectically interrelated, with one instance determining the other and vice versa, but always in keeping with the demands of accumulation of the Brazilian economic system, which is predominantly capitalist.

During the second semester of 1977, the clear reduction in the inflation rate was verified to be a direct result of the administration of the prices of the state corporations by the ministry of the treasury. At the end of 1978, however, the inflation rate started to accelerate again, ending the year with an increase in prices of around 40 percent. This led Minister Mário Henrique Simonsen to give interviews to journalists in which he revealed his perplexity.[14] The experience of the government forces leads one to recognize that fighting inflation is not as simple as it seems, and that its causes are not as exogenous as the monetarist analysis claims. It also makes it clear that political conditioners are inextricably built into the inflationary process. The state's attempt to divide the product into a sum of parts greater than the whole is not exogenous, as the monetarists claim, but is strictly endogenous, as in the structuralist viewpoint.

However, there is one essential component of the administrative character of Brazilian inflation that continues to be ignored: extremely high interest rates. Interest rates in Brazil were very high, and the spread between the rates paid for deposits and those charged for loans is one of the largest in the world.[15] At first, in 1974 when the government adopted a rigid orthodox economic policy, an increase in the interest rates was considered to be beneficial for controlling inflation because it would lead to a reduction in investments. However, as investments are not very sensitive to interest rates, this strategy did not help to control inflation, but only benefitted the banks and rentiers. At the beginning of 1979, when the idea that high interest rates were a fundamentally administrative component of inflation began to spread, people thought that the government would take steps to lower the interest rates. However, nothing has been done, limiting Minister Simonsen to invoke Wicksell's views on the natural rate of interest, emphasizing that "high interest cannot be a focus of cost inflation, but only the rising of the interest rate."[16] He ignored the fact that when a businessman takes out a loan from a banker at a high nominal interest rate, even if it is stable, he has to increase his prices to reduce the real interest rate to limits that are compatible with his profit rate. After all, interest is nothing more than a part of surplus value that the active capitalist pays to the inactive capitalist or rentier, using banks as intermediaries.

Actually, if inflation is a mechanism for transferring income from the workers to the capitalists, and from the "non-priority" sectors to the "priority" sectors of the national economy, it is clear that inflation is useful for the existing pattern of accumulation. However, this is no longer the case when high, increasing real interest rates turn into one of the basic causes of the maintenance and acceleration of inflation. Although investments are not very sensitive to the real interest rate, when it reaches levels as high as those in Brazil, it is obvious that productive capital begins to be affected. On the other hand, a permanent, accelerating rate of inflation threatens social stability and not only hurts the workers, but also, when the productive sectors of the dominant class cannot raise their prices quickly and frequently enough, does not stimulate capital accumulation. On the contrary, it creates problems with international credit and demoralizes the government.

In conclusion, it is not difficult to understand why anti-inflationary economic policy is rarely effective and is always insecure. It reflects the contradictory interests of the Brazilian dominant classes, the imperfections of the market, and the intrinsic contradictions of the pattern of accumulation prevalent in Brazil, which is characterized by industrialized underdevelopment.

March 1980

NOTES

1. For a historical analysis of Brazilian inflation since the middle of the last century, *see* Paulo Neuhaus (1978).

There is a basic bibliography in this book on this subject.

Between 1869 and 1939, annual inflation was less than 5 percent, except for a period during World War I when it went up to 8.5 percent. During the 1940s, it rose to more than 10 percent, and in the period from 1950 to 1976 to 25 percent (296).

2. In Brazil, the expression "monetarists," as it is used by newspapermen and politicians, means the orthodox, neoclassical economists (and eventually Keynesian economists) who attribute inflation to an increase in the supply of money or who recommend restrictive fiscal and monetary policies to control inflation. There is no distinction between Keynesian and *stricto senso* monetarists, who follow Friedman's macroeconomic model, developed in the 1950s and 1960s. Eugenio Gudin, for instance, who was not influenced by Friedman, but mostly by Gottfried Habeler, is usually considered to be the father of the Brazilian monetarist economists.

3. Antonio Delfim Netto, Afonso Celso Pastore, Pedro Cipolari, and Eduardo Pereira de Carvalho (1965).

4. As was definitely shown in 1977, the official indices for inflation for 1973, of around 16 percent, were manipulated by the government by using tabulated prices. The true inflation rate was around 26 percent, which indicates a clear increase in relation to the rate for the previous year.

5. For an interesting exposition of this position, *see* Mário Henrique Simonsen (1969). According to him: "In general terms, the sociopolitical roots of chronic inflation in the underdeveloped countries can be found in the distributive policy of the government. The different social groups show themselves to be unsatisfied with their participation in the national product and, in order to placate them, the government tries to divide the product into a number of parts greater than the whole" (124). Simonsen is an ecletic economist, using orthodox, as well as structuralist, arguments (such as the distributive conflict argument) to develop his own ideas.

6. About structural inflation *see* Juan Noyola (1956), Oswaldo Sunkel (1958), Celso Furtado (1959), Ignácio Rangel (1963), Júlio Oliveira (1964) and Aníbal Pinto (1973, 1978).

7. *See* especially Afonso Celso Pastore (1973).

8. Celso Furtado, in a work that which synthesizes the structuralist position, cites the following internal structural inflationary foci, aside from pressure to increase imports: inelasticity in the supply of agricultural products, inadequacies in the infrastructure, inadequacies in the available human resources on a short term basis, inadequacy of the fiscal structures, and an increase in the financial costs of the corporations (1976).

9. When, at the beginning of 1977, the National Association of Automobile Manufacturers showed its lack of interest in the liberalization of controls that the CIP was proposing, Eduardo Matarazzo Suplicy (1977) commented: "This organism for controlling prices (CIP) has become an administrator of the prices of the oligopolized industries in Brazil for the cartels. The actions of the CIP have been so much in line with the interests of the leading industries that produce final goods that they are afraid of a complete liberalization of prices."

10. *Estado cartorial* is an expression used by some Brazilian political scientists for the traditional Brazilian state which, aside from its classical liberal functions, also gave jobs to the middle class linked to the agrarian exporting oligarchy.

11. Carlos Eduardo Silveira observes that "inflation works in the most general manner to redistribute returns and to favor accumulation in the new dynamic center of the economy" (1974).

12. According to Luiz Antonio de Oliveira Lima, "When, at the beginning of 1973, the economy came close to a full utilization of the productive capacity, corporations with the most market power began to raise their markup" (1977).

13. *Gazeta Mercantil*, 2 September 1977.

14. *See*, among others, a long interview given to *Folha de São Paulo* (1978). This perplexity led Minister Simonsen, after being nominated to the

planning ministry, to present Congress in May 1979 with a report in which the administered components and the structural components of inflation were recognized, although timidly (Mário Henrique Simonsen, 1979). Francisco Lafayette Lopes (1978) developed a formal distinction between monetarists and structuralists, according to which, structuralists would be all of those who admit the existence of the Phillips curve, or, in other words, of an inverse relation between the inflation rate and the unemployment rate. According to this concept, the Brazilian governmental policy was structuralist. This formal distinction is not acceptable, even though it has the virtue of showing that no monetarist economist is able to remain orthodox when faced with the task of governing.

15. According to a survey of world financial markets, published by Morgan Guaranty Trust Company in May 1977, of the twenty-seven principal capitalist countries of the world, Brazil had the largest spread between interest rates given on deposits and those charged for loans: 43.8 percent for deposits and 62.0 percent for loans. In the United States, Great Britain, France, and Germany, the spreads were 1.50 percent, 1.75 percent, 3.75 percent, and 1.50 percent respectively.

16. Mário Henrique Simonsen (1979).

7

Recession and Inflation: 1981

The justification given by the neoclassical economists for the fiscal and monetary policies of controlling inflation is that a reduction in demand tends to reduce prices. This assertion can be found in any traditional textbook and is accepted by most people as an obvious truth. Nevertheless, there is nothing further from the truth than the traditional neoclassical theory of prices.

Actually, it forms a very important ideological justification, and it will continue to appear in the traditional textbooks for a long time for this reason. In this chapter, we intend to show that the monetarist economic policy implemented in late 1980, which tried to control inflation by a recession, actually accelerated it, especially in the oligopolized sectors of the economy.

By analyzing the price indices collected by the Getúlio Vargas Foundation, we can verify that the oligopolized sector of the Brazilian economy showed an acceleration in inflation during the same period in which demand underwent a very strong retraction. The fact that the annualized inflation rate verified in the May-June-July 1981 quarter in the oligopolized sectors was extremely high was a reflection of the monetarist policy. In the oligopolized sectors such as beverages this rate reached 343.5 percent, for the tobacco industry 301.0 percent, for electric materials 224.7 percent, transport material 162.9 percent, etc. At the same time, the more competitive sectors of industry, as well as the agricultural sectors and the producers of raw materials, showed much lower rates: lumber 11.32 percent, the metal industry 35.04 percent, textiles, apparel, and shoes 57.91 percent, food products 64.32 percent, agricultural products 40.38 percent, etc.

Thus the modest deceleration of inflation that occurred in 1981 was due to the fall in the rate of increase of the prices for agricultural products, raw materials, and the more competitive industrial sectors. Although output had fallen 9.6 percent in the manufacturing industry in the period from January to November 1981, compared to the same period for 1980, the wholesale price index for this sector showed a modest fall (100.3 percent in 1981 compared to 109.0 percent in 1980). In other words, the results obtained by the monetarist policy implemented since November 1980 were negligible and could be temporary. All that is needed for the inflation index to return to practically the same level as that of the previous year is for the prices of agricultural products, which increased only 70 percent in 1981, to adjust themselves to the same level as industrial prices (Table 7.1).

1

The most obvious thing for us to do in order to understand inflation is pay attention to the mechanism of the formation of prices. The traditional neoclassical economic theory put forth in textbooks does not clear up anything as long as it assumes that the exchange activities of abstract individuals ("producers") determine prices. On the contrary, the modern capitalist economy is dominated by big corporations that are multidivisional and monopolistic, and this institutional characteristic must be incorporated into any theory of prices. These corporations are made up of units of capital with a complex administrative structure. Actually, they are social agents dedicated to the valorization of capital, and it is in these terms that prices are determined. On top of this, the process of concentration, which is inherent in the capitalist system, permits the creation of barriers to the mobility of capital. Each corporation has a determined degree of monopoly, that is, the possibility of obtaining monopolistic profit rates. In most industrial sectors, big oligopolies dominate, and they administer their prices in the market independently of the conditions of supply and demand.

Given these conditions, it is not difficult to understand why the prices of the oligopolized sectors present behavior contrary to the neoclassical dogma, accepted as an obvious truth, that a reduction in demand provokes a reduction in prices. In practice, each oligopolistic corporation has its target profit rate, determined by its degree of monopoly. In order to reach this rate, it fixes a profit margin that, when added on to direct costs, will establish a price capable of covering the overhead costs, in addition to its target profits. Once this profit margin is calculated, it tends to remain

Table 7.1 Trends of the Inflation Rate (Annual Rates)

	12 Months from December 1980	12 Months up to December 1980	12 Months up to July 1981	6 Months up to July 1981	3 Months up to July 1981
General Price Index	108.55	95.2	110.50	105.06	84.69
Cost of Living Index	86.34	100.5	108.45	107.20	102.02
Cost of Construction Index	112.99	86.2	96.20	92.19	36.07
Wholesale Price Index	118.62	90.5	108.17	97.73	80.87
Agricultural Products	138.17	70.7	105.22	74.21	40.38
Industrial Products	110.26	99.7	108.82	108.57	101.74

Source: Conjuntura econômica; Getúlio Vargas Foundation

Table 7.2 Wholesale Price Index (IPA) – Manufacturing 1981

1. Competitive sectors that show a clear inflationary deceleration					
	12 months from December 1980	12 months up to December 1980	12 months up to July 1981	6 months up to July 1981	3 months up to July 1981
Metalurgy	102.40	83.2	79.91	64.96	35.04
Lumber	157.50	21.6	65.66	26.08	11.34
Real Estate	121.42	81.8	108.01	61.83	86.52
Leather and furs	43.97	89.1	·73.61	90.82	61.02
Textiles, clothes and shoes	101.84	68.8	76.24	56.17	57.91
Food products	85.60	96.9	92.03	80.17	64.32

2. Oligopolized sectors that showed acceleration and/or hight inflationary rates

	12 months from December 1980	12 months up to December 1980	12 months up to July 1981	6 months up to July 1981	3 months up to July 1981
Electrical material	106.62	135.2	129.70	178.19	224.73
Home appliances	115.13	134.0	137.34	191.65	227.27
Transport material	107.38	149.4	149.85	183.14	162.94
Motor vehicles	107.53	148.0	146.72	176.22	157.65
Paper & cardboard	95.87	120.5	110.53	102.06	157.85
Rubber	136.29	166.5	140.29	146.77	158.99
Chemicals	130.72	113.9	130.84	163.87	149.25
Beverages	118.71	127.2	141.85	127.01	343.51
Tobacco	65.39	183.0	156.28	287.73	301.00

Source: *Conjuntura Econômica*; Getúlio Vargas Foundation relatively constant. Under normal conditions, prices are determined by adding the fixed margin to direct costs, which is why they tend to be insensitive to variations in demand. In the meantime, any variation in direct costs tends to be passed on to prices.

However, when demand falls drastically, as happened in the first semester of 1981, fixed unit costs increase, and if the profit margin does not increase, profits will be eaten away by this increase in costs. As oligopolistic corporations have control over the market, they try to recover the losses suffered from the fall in sales by increasing their profit margins. By increasing the profit margin for the remaining sales, they try to assure their projected profit rate.

This is exactly what happened in the 1981 recession. The Brazilian economy entered a process of recession after extremely restrictive monetary measures were applied beginning in the second semester of 1980. As a result, the oligopolistic sectors raised their profit margins, provoking a typical inflation of profits. It was precisely during the period of May-July 1981 when the corporations made the greatest cuts in the level of their production, laying off many workers, so that their profit margins and their prices underwent the greatest increases, as can be seen in Table 7.2. Once the margins are raised, if there is no fall in demand, there is no reason for the oligopolies to precipitate changes in prices. This explains why, in the following months when demand fell less rapidly, the rate of inflation was smaller.

2

Aside from these concentrated and oligopolized sectors, there is also a segment of the economy made up of the agricultural sector, the sector that produces raw materials, and some competitive branches of industry in which the mechanism for establishing prices is very different from that in the oligopolized sector. There is a free mobility of capital in these sectors, and thus firms do not have the power to administer their prices. Intercapitalist competition makes prices relatively flexible. When there is a drop in demand, they react by reducing their prices in order to be able to honor their financial commitments. This is clearly seen in Table 7.2, where we can verify that these competitive sectors decelerated their prices when demand underwent an accentuated fall.

However, this deceleration has its limits, because when prices cease to cover direct costs, all corporations prefer to stop production. Thus, once a level of prices is reached in which there is no profit, even the competitive corporations begin to pass the increase in their direct costs on to their prices. The recessive policy then stops working in an anti-inflationary way in these sectors.

In this way, what happens to inflation depends on the relative weight of the competitive and oligopolistic sectors in the economy. If the relative weight of the concentrated sectors is very great, the recession tends to accelerate inflation by compensating for the falls in the competitive sectors.

3

Obviously, this process of increasing profit margins has its limits. We then need to know what these limits are and when they begin to act. They depend on the degree of monopoly, that is, on the capacity of the corporations to set up obstacles to competition, such as imposing barriers for new corporations entering the sector, differentiating products, controlling technology and channels of distribution, etc. The greater their degree of monopoly, the longer the recession must last before the oligopolies no longer respond by increasing their profit margins. However, there is a moment in which this policy of raising prices no longer compensates for the fall in sales, and all of the corporations go into the red. This happens when the recession turns into a depression that is so prolonged that it destroys the whole economy, provoking generalized bankruptcy. Prices (relative to wages) also go up so much that demand becomes extremely sensitive to new increases. At this point, the unemployment level is so high that wages have already undergone big reductions and inflation thus begins to yield. In this case, the monetarist policy does have some effectiveness, but it is at the cost of a large increase in unemployment and a reduction in real wages.

A effective reduction in the inflation rate takes place especially in the next phase, when demand begins to be reactivated by the government itself because of strong social pressures. As sales begin to increase, fixed costs and profit margins may be reduced.

The above analysis clearly shows that the competitive sectors, along with the workers who lose their jobs and have their real wages reduced, pay the costs of the recessive policy adopted by the government. Only the big oligopolistic corporations are able to transfer their losses from the retraction in demand to consumers by accelerating their price increases. Sooner or later the workers and the competitive sectors will try to cope with their losses from recession and from the deceleration of their wages and prices.

April 1982

8

Accelerating Factors in 1979 and 1983

During the period of rapid economic expansion from 1967 to 1973, Brazilian inflation was around an average annual rate of 19.5 percent.[1] In subsequent years it began to suffer from the impact of various inflationary pressures, until, in the second semester of 1983, it reached a level ten times higher.

In the first phase, the inflation rate doubled, going from an average annual rate of 19.5 percent in the period 1967-1973, to 38.7 percent in the period 1974-1978. During this period, the rise in the inflation rate was accounted for by the impact of high international oil prices. In spite of this acceleration, the inflation rate was maintained under relative control, stabilizing itself at an annual level of approximately 40 percent.

After 1979, Brazil entered a more turbulent phase, with a series of new accelerating factors (supply and demand shocks), which caused the annual inflation rate to jump to 77.2 percent in 1979 and to around 100 percent in the period 1980-1982. In 1983, new inflationary pressures caused the inflation level to double again, closing the year with an annual rate of 211 percent. The main price fluctuations that occurred in the period from 1979 to 1983 are shown in Table 8.1.

In this chapter, we will analyze the main factors that caused inflation in Brazil to soar. We will restrict the study to the period after 1979 and concentrate the analysis on two critical moments: the second semester of 1979 and the first semester of 1983. The acceleration of inflation that occurred in these two periods can be explained with the help of the model of autonomous or inertial inflation that we studied in Part 1 of this book. For these two periods, the main factors causing inflation to accelerate were: (1) price adjustments administered by the government (the so-called corrective inflation), implying an increase or recomposition of profit

Table 8.1 Price Variations: 1979 - 1983 (%)

Year	IGP-DI	Means of payment	Exchange devaluation	Monetary correction	Diesel oil on the Rotterdam market	Internal price of gasoline	Internal price of diesel oil	Nominal wages
1978	40.8	42.2	30.3	36.2	7.9	33.3	31.4	58.1
1979	77.2	73.6	103.3	47.2	145.2	169.0	160.9	67.8
1980	110.2	70.2	54.0	50.8	−0.8	125.7	66.7	109.7
1981	95.2	74.7	95.1	95.6	−5.0	66.7	150.0	96.4
1982	99.7	69.7	97.7	97.8	−0.8	96.5	104.0	107.6
1983	211.0	92.0	289.4	156.6	−15.1	166.5	194.1	121.0

Sources: Getúlio Vargas Foundation, Central Bank,
Federation of Industries of the State of São Paulo (for wages)

margins; (2) the maxidevaluations of the exchange rate; (3) shocks of agricultural prices; and (4) changes in the formula for the indexation of wages.

The assumption in this analysis is that the acceleration of inflation functions as a defense mechanism for the business sector against threats to profits. It tries to protect these profits from recession, wage increases, devaluations of the exchange rate, increases of agricultural prices, and corrective inflation. In other words, the acceleration of inflation defends the profits of the business sector, because it succeeds in increasing the profit margin or, simply because when inflation goes up, it causes the average real wage to go down.

1

When analyzing the process of the acceleration of inflation, the second semester of 1979 is an important period because it was both decisive and full of incidents and experiences that caused strong inflationary pressure. This pressure caused the inflation rate to jump from 40.8 percent in 1978 to 77.2 percent in 1979 and to 110.2 percent in 1980.

The year 1979 began with pressure from the prices of agricultural products that was the result of an inadequate expansion of cultivated area, as well as of poor harvests from 1977 to 1979. Actually, since the beginning of the 1970s, agricultural prices had been turning into an inflationary factor, but they had been repressed at the consumer level through price controls. This phenomenon can be accounted for by an insufficient supply of products for internal consumption, as well as by some cost-related pressures.

These pressures are explained by the increasing distance of the production areas from the centers of consumption, and subsequently by the expulsion from the rural frontier of the small farmers, who did not have legal rights over their land *(posseiros).* They were also influenced by the rapid modernization of agricultural production in the Central-South region of the country. This modernizing process implied high financial outlays to make the transition from traditional, itinerant agriculture, which uses almost no industrial input, to a type of agriculture that entailed massive consumption of industrial products. It also involved a process of replacing the fertility of the soil, which was exhausted by the previous process of traditional exploitation. This all added up to the fact that, on the one hand, the increase in productivity due to modernization usually resulted in an increase in costs while, on the other hand, it interrupted the subsidy for the urban sector that was implicit in nonmonetary production costs and an underpaid work force.

The insufficient expansion of the supply of agricultural products was especially severe for products for internal consumption. This was basically because of a combination of the following factors: (1) income concentration that limited food consumption, (2) a lack of stimulation for food production because of price controls and unequal terms of trade with the oligopolistic industrial sector, (3) the stimulation and expansion of agricultural products for export, (4) heavy land speculation, and (5) an inadequate landholding structure.

As a result of these factors, the internal per capita availability of basic food—rice, beans, corn, manioc, and potatoes—suffered a 25 percent drop between 1967 and 1969. Even if one includes products of animal origin—beef, pork, poultry, milk products, and eggs—there was still a drop of -0.76 percent per year in the same period in terms of internal per capita availability.[2]

As shown in Table 8.2, in 1979 there was a factor for potential inflation: the price squeeze of agricultural products at the consumer level. The changes in the economic policy in the second semester of 1979 created a favorable environment for turning this factor into effective inflation. The average quarterly annualized rate of increase in the price of foodstuffs in 1979 jumped from 69.5 percent and 39.5 percent in the first two quarters, to 105.2 percent and 139 percent in the third and fourth quarters.

The monetary and fiscal policy in the period between 1974 and the first semester of 1979 was basically a policy of "stop and go," which maintained inflation under relative control at an annual level of a little below 40 percent. At the same time, it maintained economic growth by means of public investments financed by external debts.

In the first semester of 1979, the eruption of the war between Iran and Iraq and the new monetary policy adopted by the Federal Reserve Board of the United States gave Brazil two brutal shocks: (1) the "second oil shock," which caused the price of oil to double on the international market between the first quarter of 1979 and 1980, going from $12.63 per barrel to $21.01; and (2) the impact of the interest rate, which caused the prime rate to reach a level of 20 percent per annum, so that the real interest rate on the international market, which was around zero at the beginning of the decade, rose to a level of around 8 percent per annum at the end.

It was in this context that planning minister, Mário Henrique Simonsen, decided to implement a new orientation for the economic policy, making it more austere. He proposed budget and monetary reforms aimed at taking effective control over the expenditures of the public sector and over monetary expansion. He also took complementary steps in

Table 8.2 Indexes of Real Prices for the Agricultural Sector[a]

Year	Prices received by the farmers		Wholesale prices for foodstuffs	Consumer prices for foodstuffs for Rio de Janeiro
	Crops	Animal products		
1970	100	100	100	100
1971	110	105	107	102
1972	113	114	109	102
1973	142	142	110	102
1974	138	163	109	108
1975	149	145	110	106
1976	186	126	116	108
1977	184	129	116	110
1978	173	141	123	111
1979	161	169	126	116

Source: Getúlio Vargas Foundation.
[a] Prices deflated by the IGP-DI.

monetary and credit control by requiring that the equivalent in cruzeiros to 50 percent of foreign loans be deposited in the central bank for six months and by restricting the conditions for consumer loans.

This new policy was never implemented because it was faced with strong resistance both from inside and from outside the government. As a result, Simonsen resigned his position as planning minister in August, to be replaced by Antonio Delfim Netto.

The new minister implemented a new orientation completely contrary to that of Simonsen. Rather than decelerate the economy, he sought to expand it and, at the same time, to reduce inflation, as he had done in 1967. Thus, he adopted the following set of measures: (1) release credit and practice a looser monetary policy; (2) expand government expenditures; (3) control interest rates by applying a reducer to the prevailing rates; (4) suspend price controls for foodstuffs and for industrial products through the CIP (interministerial price control); (5) advocate a real readjustment of the prices of petroleum products, of public services, and of other prices administered by the government.

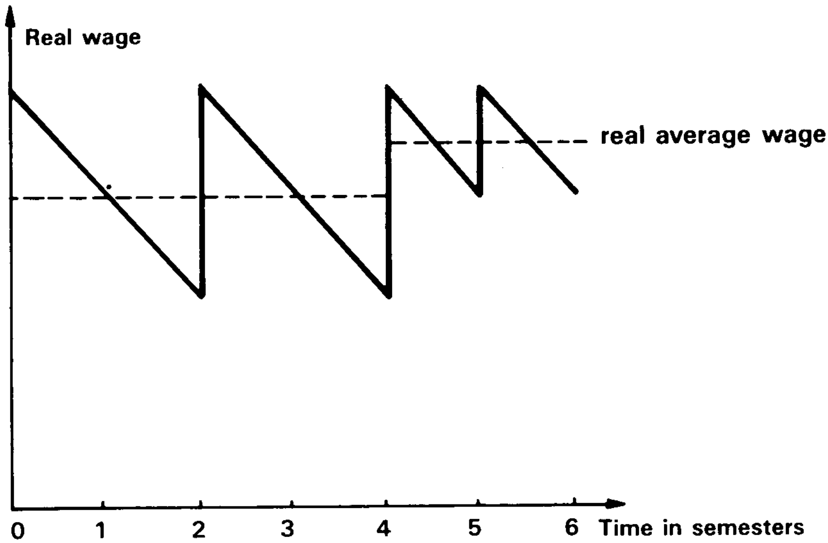
To have an idea of the impact of this "corrective inflation" policy, one only needs to remember that petroleum products, which had been readjusted by an average rate of 32.3 percent in 1978, underwent an average readjustment of 164.8 percent in 1979. Just in the month of November, gasoline was increased by 58.1 percent and diesel oil by 37.9 percent. There is no doubt that the big rise in the real price of imported energy acted as a shock, unleashing a wave of inflationary acceleration that caused inflation to double between 1970 and 1980.

At the same time, congress approved law 6708, shortening the period for readjusting wages from a one-year to one-semester basis. It also guaranteed that they would be raised to 10 percent above the inflation rate as measured by the national consumer price index (INPC) for those who made up to three minimum wages. The wage readjustments guaranteed by the law for those in the higher income brackets were progressively smaller, so that workers who earned up to 11.5 minimum wages had their real wage protected, while those above that level saw their wages decline.

There is no sufficient empirical evidence to prove the hypothesis that law 6708 increased the coefficients of indexation of the average wage to prices, or that the reduction in the period for readjusting wages had a strong inflationary impact.

There is no doubt that the new law had some inflationary impact as soon as it was enforced, but the real wage increase was almost immediately neutralized. In fact, a reduction in the period for wage readjustment would imply, in principle, an increase in the average real wage and, consequently,

Figure 8.1 Theoretical Effect on the Real Average Wage of the Change to Semestral Readjustments



a reduction in profit margins, as we can see in Figure 8.1. To neutralize this change, the business sector's immediate solution was to accelerate the inflation rate. When faced with the simple threat of an increase in costs, business firms reacted by increasing their profit margins and prices. The resulting acceleration of inflation lowered real wages. The business sector also managed, through an increase in the turnover of workers, to reduce average real wages. Finally, the law itself, by penalizing wages above the level of 11.5 minimum wages, also helped to neutralize its own inflationary impact. As a result, there were not, according to the law, significant variations in the per unit cost of labor. See, for example, Eduardo Modiano (1983) and Paulo Vieira da Cunha (1983).

As if the inflationary impact of the previous measures was not enough, on 7 December 1979, the economic authorities carried out a maxidevaluation of the cruzeiro of 30 percent. The inflationary impact of this measure was immediate. Prices went up not only for imported products, but also for all other products because of the propagation effect. Speculation by those who held stocks of imported goods or of goods with a high content of imported components anticipated the inflationary impact.

In order to try to restrain the inflationary impact of the maxidevaluation, the government announced in advance that it would go back to administering prices and would establish limits for monetary correction and for a nominal exchange devaluation at 45 percent. It also tried to control monetary and credit policy by imposing a limit of 45 percent over the expansion of credit for the banking system for operations based on resources earned in the internal market.

When it announced a parameter for the indexation of the exchange rate that was below the actual inflation rate, the government was adopting the monetarist theory of "purchasing power parity." According to this theory, the inflation rate should adjust itself to the nominal devaluation rate of the currency. In order to do this, it is only necessary to make a prior announcement of the devaluation to a lower rate so that it can create expectations for a lower inflation rate. This is the same policy that was adopted earlier in Chile and in Argentina, based on the tablita of currency devaluation, with catastrophic consequences for these two countries.

Unfortunately, this attempt to control inflation "by decree" was a complete disaster. It was based on the assumption that the business sector would believe in the official measures and thus change its expectations, which would guarantee a drop in the inflation rate to the levels decreed by the government (50 percent). The impact of the exchange rate revealed that, in reality, the business sector bases its calculations on past inflation rather than on future rates decreed by the government, which, as a result, has no conditions to determine the expectations. After jumping from 77.2 percent to 110 percent, from 1979 to 1980, inflation stablized at this level, in spite of the preannounced exchange and monetary index. A small reduction in the inflation rate only came about in 1981, thanks to a radical contractionary policy that was adopted at that time. On the other hand, the valorization of the cruzeiro, provoked by the minidevaluations below the inflation rate, discouraged exports and encouraged imports. This, in turn, provoked a commercial deficit of almost three billion dollars in 1980, even though all of the indicators had pointed toward a policy of external adjustment since 1979. As a result, this adjustment, which was not carried out with moderation nor under Brazilian control in 1979 and 1980, was done violently and under the control of international creditors and the IMF in the following years.

2

In 1983, when the inflation rate doubled again, going from an annual rate of 99.7 percent in 1982 to 211.8 percent there were many similarities to 1979. Prices were once again submitted to a series of inflationary shocks: (1) strong pressure from the price of agricultural goods because of a reduction in the amount of cultivated land and an explosion in the price of some products, such as soya, in the international market; (2) a maxidevaluation in the exchange rate in February 1983 of 30 percent; (3) "corrective inflation" through price increases (and the elimination of subsidies) for some products and services that were controlled by the government (electric energy, steel, petroleum products, wheat, etc); and (4) a tax increase.

The first thing that differentiates 1983 from 1979 is that these inflationary shocks were now occurring in an economy that was going through its third year of recession. This was due to the policies of stabilization and adjustment patterned by the IMF, which had been implemented since the end of 1980 and then formalized in the letter of intentions of December 1982. The second difference is that the 1983 maxidevaluation was not annulled in the following month as had happened in 1979-1980.

Monetary expansion was contained at a level of 74.7 percent and 69.7 percent in 1981 and 1982, for inflation of 95.2 percent and 99.7 percent respectively, thereby causing a strong reduction in real liquidity. The total deficit of the public sector was reduced from 6.6 percent in 1982 to 2.5 percent in 1983. The real interest rate reached levels over 30 percent per annum, and the industrial employment level suffered a strong contraction, going down to the same level as in 1973. Industrial idle capacity reached almost 30 percent.

In respect to anti-inflationary policy, the wage law was changed at the beginning of 1983, with a reduction for workers earning more than three minimum wages. On the other hand, as the workers who earned more than 11.5 minimum wages did not have the replacement of their real purchasing power guaranteed, wages became partially deindexed. With the passage of law 2065 in November, which created an even more accentuated deindexation, the coefficient of the average readjustment fell to 87 percent of the national consumer price index (INPC). On top of this, price controls were reestablished, imposing a readjustment for industrial prices of 80 percent of the change in the ORTN.[3] A similar reduction was applied to rents.

It was this environment of a very heavy contraction in aggregate demand because of a tight fiscal and monetary policy, unprecedented in recent Brazilian history, combined with wage and industrial price controls, that the inflation rate skyrocketed, leading to the great stagflation of 1983. Neither the Keynesian models nor the monetarist models of inflation can explain this phenomenon. It is necessary to develop an alternative model that clearly distinguishes the elements that cause inflation to accelerate, as opposed to those that maintain inflation or cause inflationary inertia, even when there is high unemployment.

The first accelerating factor to manifest itself in 1983 was the pressure of agricultural prices, caused by a decrease in supply. In 1983, the main Brazilian crops, except for sugar cane, were 5.5 percent less than in 1982. This drop in production was partially due to crop failures resulting from climatic factors (floods in the South and droughts in the Northeast). The main reason, however, was an almost 6 percent reduction in cultivated area, because of the recessive policy itself and a drop in the real prices of agricultural goods in 1981 and 1982. Another fact, which is not as important as those mentioned previously, was a reduction in agricultural credit and the elimination of credit subsidies.

Agricultural prices began to go up at the end of 1982, after having been repressed, in real terms, for two consecutive years. The average monthly increase in agricultural prices in the wholesale market jumped from 4.9 percent in the second semester of 1982 to 12.2 percent in the first semester of 1983, and to 20.3 percent in the third quarter of 1983, when it climaxed.

In 1981 and 1982, it was the price of industrial products that pushed up the inflation rate, with increases of 99.6 percent and 99.8 percent respectively, compared to increases of 70.7 percent and 89.5 percent for agricultural prices in the same period. In 1983, the agricultural prices took the lead, increasing 335.8 percent as opposed to 200.5 percent for industrial products. Agricultural products play an important role in the cost of living index (INPC) and in indexation in general. As a result, this recomposition of the profit margins of agricultural prices, which especially benefitted the middlemen, spread to all other sectors via wage indexation and the automatic passing on of the price of agricultural raw materials, causing a strong acceleration in the inflation rate.

At the same time as the shock of the agricultural prices, the government provoked a new brutal price shock by declaring a 30 percent maxidevaluation of the cruzeiro in February 1983. As mentioned earlier, agricultural prices had already begun to exert pressure on the prices in other sectors at the end of 1982 and in the beginning of 1983, increasing by 11.9 percent in December and 11.5 percent in January in the wholesale market. As this was a totally inopportune moment from an inflationary point of view, the maxidevaluation caused prices to skyrocket. This then provoked successive waves of acceleration through the propagation effect, raising the inflation rate from a level of 100 percent, prevalent after since the end of 1979, to a level of over 200 percent at the end of 1983. As a result of these two shocks and their side effects, the general price index (IGP) jumped from a monthly average of 5.3 percent in the last quarter of 1982, to 8.5 percent in the first quarter of 1983, 9.4 percent in the second quarter, and 12.1 percent in the third quarter.

A real exchange devaluation (above the inflation rate) has a strong accelerating influence on inflation even though there are few imported products that participate in the GNP. Given the fact that more than two-thirds of Brazilian imports are petroleum and other basic components, the impact of a real change in the exchange rate is much greater than one would at first imagine. Moreover, the ultimate impact on inflation is more than proportional to the imported products' participation in the costs of production because of the generalized indexation of the economy.

Price readjustments for products and services whose prices are controlled by the government make up a third factor that also contributed to the acceleration of the inflation rate. These readjustments, especially for petroleum, steel, electric energy, and wheat, were aimed at eliminating subsidies in accordance with the recently assumed commitments to the IMF. They also took place in the second quarter of 1983, right after the two previously mentioned shocks. The shocks provoked by "corrective inflation" occurred at a moment when the system of prices was just beginning a process of absorbing and dispersing the shocks of the agricultural price increases and of the maxidevaluation.

Actually, the partial elimination of subsidies, which had occurred so far, fed inflationary expectations rather than actually pressuring costs. As can be seen in Table 8.3, the price readjustments administered by the government in 1983, with the exception of diesel oil, were less than the

Table 8.3 Prices Controlled by the Government (%)

	1980	1981	1982	1983
Electric energy	67.0	112.4	103.1	156.9
Telephone	69.1	98.4	90.4	127.5
Petroleum products				
Gasoline	125.7	66.7	96.5	166.5
Fuel oil	66.7	150.0	104.0	194.1
Diesel oil	404.2	90.1	104.3	225.2
Gas	104.3	94.7	105.4	213.8
Coal	77.2	248.8	174.4	102.6
Steel	133.9	105.9	99.0	150.1
Mail and telegraph service	56.2	139.9	101.2	88.0
Railroad transportation	79.4	112.1	98.2	152.6
IGP/DI	110.2	95.2	99.7	211.0

Source: Getúlio Vargas Foundation and the Central Bank average fluctuations measured by the IGP. What happened was that there was a concentration of price readjustments in the second quarter of the year, after they had been held down for months. This exacerbated inflationary expectations, thus provoking an elevation in the anticipated inflation rate much higher than that which would result from a simple passing on of costs.

There is no doubt that when the inflation rate reaches a level of 10 percent per month, inflationary expectations play a more important role. This is because the risks of a divergence between effective and anticipated inflation become greater as the inflation rate rises. Given this situation, in the short run, the business community begins to base its calculations on some unit of buying power other than the current nominal currency. In this case, the dollar and the ORTN took the place of the cruzeiro as the accounting unit. When readjusting prices, the businessmen were also more strongly influenced by these buying power units than by cost increases.

3

As seen in Chapter 2, the accelerating factor of inflation, P, can be summed up as: (1) the increase in nominal average wages, $\dot{w}$, above the increase in productivity, $\dot{q}$; (2) the increase in the profit margin over the increase in sales, $\dot{m}$; (3) the devaluation of the exchange rate, $\dot{e}$; (4) the increase in the international prices for imported goods, $\dot{z}$; (5) the increase in indirect taxes; and (6) the increase in the real interest rates.

The increases of profit margins and wages do not in themselves cause inflation to accelerate, but rather are consequences of one of the following factors: (a) a generalized excess of aggregate demand in relation to supply, when there is full employment and the idle capacity is exhausted; (b) sectorial bottlenecks of supply; (c) the monopolized power of businesses and trade unions; (d) a reduction of productivity and consequently the elevation of fixed unit costs; and (e) increases in direct taxes.

In analyzing an economy like that of Brazil, in which inflation is a chronic phenomenon and which is characterized by the strong presence of oligopolies and of the state, it is fundamental to integrate the mechanism of indexing prices into the analysis. When there is chronic inflation, all businessmen try to defend their real income by automatically passing on increases in costs to prices. Thus, not only does inflation acquire inertia, but price shocks are also spread throughout the whole economy, creating an inflationary multiplier. When indexation is complete and generalized, an increase in any price in the economy not only provokes an initial increase in the general level of prices proportional to its participation in costs, but it is also multiplied by a factor represented by the mechanism of indexation. This mechanism guarantees all agents an increase equal to that which began the process, thus maintaining real income and relative prices intact.

In order to develop a more concrete theoretical base to explain the recent phenomenon of inflationary acceleration, it is necessary to break down the general price index into its three components, each with distinct behavior: industrial prices, $\dot{p}_i$; agricultural prices, $\dot{p}_a$; and prices which are controlled by the government, $\dot{p}_g$:

$$\dot{p} = \gamma_1 \dot{p}_i + \gamma_2 \dot{p}_a + \gamma_3 \dot{p}_g \qquad 8.1$$

where the γ's are the weight given to the participation of each sector in the composition of the general price index, p.

In the Brazilian industrial sector, which is marked by the strong presence of oligopolies and large state enterprises, prices are administered and set according to a markup above direct or variable costs. This markup factor tends to maintain itself constant in normal conditions of demand. However, in the course of the economic cycle, and when the economy is submitted to deep shocks or changes, businesses adjust their markups with an eye to protecting their long-term profit rates. Under normal conditions, margins are stable, and any increase in direct costs, interest rates, or indirect taxes are passed on to the consumer. Margins vary when there is a significant increase in direct taxes, fixed unit costs, and the degree of monopoly.

In order to determine the fluctuations of industrial prices, we should consider the fluctuations of profit margins, $\dot{m}$, the fluctuation of the wage rate, $\dot{w}$, the dollar price of imported raw materials, $\dot{z}$, and the exchange rate, $\dot{e}$, that is:

$$\dot{p} = \dot{m} + \alpha(\dot{w} - \dot{q}) + (1 - \alpha)(\dot{z} + \dot{e}) \qquad 8.2$$

where α stands for the participation of the cost of labor in the total direct cost.

In the agricultural sector, prices are governed by the rules of competition, except in the commercialization of a few products. In this sector, there is free mobility of capital and, with this, the agricultural producers are not able to influence their prices in the market. Short-term agricultural prices depend on the conditions of supply and demand, and are therefore relatively deindexed. Agricultural prices are determined, on the one hand, by harvests and existing stocks and, on the other, by demand,

and there is almost nothing that agricultural producers can do to change them. In the long run, relative prices need to be balanced so that production prices can act as a center of gravity for the market prices. Long-term prices are structural parameters that accompany production costs as a way to guarantee a minimal profitability of capital. Therefore, agricultural prices, which are flexible and deindexed in the short run, are indexed in the long run.

In fact, as we will see later, the economic recession of 1981 and 1982 caused a strong contraction of agricultural prices, which contributed to a reduction of inflation in that period. It also resulted in a reduction of land cultivated in the following harvests. This fact, combined with crop failures due to climatic factors and with low stocks, caused supply to be insufficient in 1983, with consequent price increases. A reduction in cultivated area functions as a regulating mechanism that reestablishes relative prices, but it also implies an inflationary acceleration.

When discussing agricultural prices, it is also important to distinguish between prices that are determined in the international market and those in the internal market. The two prices will tend to move together, but their dependence on each other is generated by the degree of protectionism or liberalization of the market. The price of export products are almost completely dependent on the conditions of the international market and on the exchange rate policy unless the government develops control mechanisms, such as export quotas and internal price controls.

In simple terms, we can state that the variations in agricultural prices, $\dot{p}_a$, depend on supply, O, and on demand, D, in the short run and, in the medium run, on the general price index.

$$\dot{p}_a = f\,(D, O, \dot{p}) \qquad 8.3$$

In an economy in which inflation is a chronic phenomenon, economic agents and groups make an effort, both formally and informally, to protect their real earnings through the indexation of their prices according to the general price index. There are four administered prices that depend on the government, trade unions, or oligopolies: (1) the prices of products controlled or produced by the government, (2) the exchange rate, (3) wages, and (4) the profit margins of businesses. The rate of increase of these prices depends on a coefficient of price administration, A:

$$\dot{p}_g = A_1\,\dot{p}_{-1} \qquad 8.4$$

$$\dot{e} = A_2\,\dot{p} + M \qquad 8.5$$

$$\dot{w} = A_3 \dot{p}_{-1} \qquad 8.6$$

$$\dot{m} = A_4 \qquad 8.7$$

Note that A_1 and A_2 basically depend on government decisions. A_3 depends jointly on business, trade unions, and the government. A_4 depends on the decisions of the oligopolies as they try to adjust their profit margins to attain a long-term profit rate. Actually, all of these prices, with the exception of the profit margin (which is not exactly a price), are generally indexed to past or current rates of inflation. As for the exchange rate, we use A_2 as the coefficient of indexation that guarantees a given parity for the local currency and M to reflect an eventual maxidevaluation.

Inflationary acceleration or deceleration occurs in agricultural prices if supply or demand undergo variations that affect relative prices. For other prices, the acceleration or deceleration of inflation will depend on the coefficients of price administration, that is, if they are greater or smaller than 1. Generally, what happens with the prices controlled by the government, including the exchange rate, is that they tend to make A_1 and A_2 less than 1 during periods of decelerating inflation. Then corrective inflationary measures making A_1 and A_2 greater than 1, or a maxidevaluation of the exchange rate, reestablish relative price equilibrium, thus accelerating inflation. A_3 varies around 1 according to the bargaining power of the workers and the power of the workers and businesses over the government. In order for A_4 to be neutral in relation to inflationary acceleration or deceleration, it should be equal to zero. If this is the case, profit margins are satisfactory and allow businesses to attain their planned profit rate.

In the medium term, agricultural prices, controlled prices, the exchange rate, and wages should accompany the inflation rate in order to reestablish the equilibrium of the structure of relative prices. When the economy is formally indexed, price controls serve this purpose. In the short run, the pendular movements described above are the most common or probable, especially when inflation itself accelerates.

4

In terms of the previous model, the strong acceleration of inflation in 1979 can be summed up in terms of the three shocks mentioned above. The first is the increase of agricultural prices, which had been partially held down at the consumer level by various control mechanisms. Due to the end of controls and to poor crops, which are related, agricultural prices began to accelerate in the second semester of 1979. This expansion found a favorable environment in the new "developmentalist" policy adopted by the government at that time.

In this model, agricultural prices are related to the general price index, and these to nominal wages. Any increase in agricultural prices not only has an immediate impact on the general price index, according to its weight, γ_1, but it also has an indirect effect on industrial prices through the indexation of wages. Given that the participation of agricultural prices in the price index used for wage adjustments is high in Brazil, the indirect effect of the increase in agricultural prices on industrial prices is significant.[4] Also note that, as the shock of agricultural prices spreads throughout the economy through the indexation of wages, it has an inflationary impact much greater than that which corresponds to its participation in the GNP. This impact can be partially neutralized only if the factor of wage controls, A_3, is less than 1.

The impact of the second accelerating factor of inflation—the maxidevaluation of the cruzeiro in relation to the dollar in 1979, and particularly in 1983—can also be analyzed more clearly in terms of the above model. At first, the maxidevaluation converts itself into an increase in industrial prices, as the businesses try to maintain their profit margins at a constant level by passing on increases in the costs of raw materials, as can easily be seen in Equation 8.2. The extent of this effect depends on the rate of the exchange devaluation, and on the participation of the costs of imported raw materials in industrial costs $(1 - \alpha)$. Next, we have the effects of the spread of inflation via the impact of industrial prices on the price index used for wage and exchange correction. In other words, the maxidevaluation now converts itself into an increase in wages and of the exchange rate itself, as both are indexed. Obviously, these wage and exchange rate increases are immediately passed on to prices.

If we were to have a maxidevaluation of 30 percent, as occurred in Brazil in December 1979 and in February 1983, and if the rest of the economy were indexed, the effect of the maxidevaluation on the general index of prices would be equal to M, or to 30 percent. In reality, the inflationary effect would be less than 30 percent because agricultural prices are not directly indexed. Also, industrial prices of the competitive sectors are only partially indexed, and the correction coefficient is less than 1 for the prices controlled by the government and for wages. On the other hand, if a maxidevaluation occurred at the same time as an increase in agricultural prices and a "corrective inflation" of controlled prices, as happened in 1979 and 1983, the accelerating effects on inflation would tend to be above this 30 percent, even if the economy were not totally indexed.

The effect of a 30 percent maxidevaluation will also be greater than 30 percent if the economic agents do not accept the change in relative prices and try to increase their prices in order to reestablish their share in the income prior to the real devaluation. They will not succeed in this attempt if the subsequent minidevaluations follow inflation, but the price increases they make in the meantime will have a powerful multiplying effect on inflation. It was probably this type of mechanism that had the most weight in the extraordinary acceleration of inflation in 1983.

5

The inflationary acceleration that happened in Brazil in 1979 and 1983 can, however, be explained perfectly by the model of autonomous or inertial inflation. In these two years, neither the public deficit nor the increase in the monetary supply had an accelerating effect on inflation. They were limited to sanctioning acceleration that had already occurred.

On the other hand, the Brazilian government and the International Monetary Fund applied an orthodox model of adjustment, based on the monetary approach to the balance of payments, which led to a recession in the Brazilian economy in 1983 unprecedented in its industrial history. Although the government also tried to partially deindex the economy, the emphasis of its anti-inflationary economic policy was put on a reduction of the public deficit and in controlling the monetary base.

They had success in reducing the public deficit and reasonable success in reducing the money supply, but the inflation rate still doubled in this period.

Faced with these results, it became normal in Brazil, including in official government documents such as the fifth letter of intentions to the International Monetary Fund, to attribute the inflationary acceleration of 1983 to the three factors we examined in this chapter (increase of agricultural prices, maxidevaluation, and the "corrective inflation" of controlled prices).[5]

Based on this fact, it is clear that neither the Brazilian authorities at the time nor the International Monetary Fund have a theoretical model capable of explaining Brazilian inflation. Although they explained the inflationary acceleration of 1983 in nonmonetarist terms, they insisted on emphasizing a monetarist therapy.

April 1984

Notes

1. General prices index, internal availability (IGP-DI), calculated by the Getúlio Vargas Foundation. When we talk about inflation without any other reference, we are referring to this index, although there are other indexes that are also indicators of inflation.

2. *See* Fernando Homem de Mello, "Disponibilidade de alimentos e efeitos distributivos: Brasil 1967/79," *Pesquisa e Planejamento Econômico*, vol. 12, no. 2, August 1982.

3. ORTN—obrigações reajustáveis do tesouro nacional—are corrected monthly according to past inflation. The value of these federal bonds served as the basis for indexation in Brazil.

4. It is estimated that agricultural prices have a value of 0.43 in the INPC.

5. Central Bank of Brazil, "Brazil Economic Program—Internal and External Adjustment," March 1984, 23.

9

Inertial Inflation on the Eve of the Shock

In January 1986, it was dramatically confirmed that inflation, with a rate of 16.2 percent (IPCA) or 17.8 percent (IGP), had undergone a new acceleration.[1] The fact that, in the last three years, inflation had stayed at an annual level of a little above 200 percent (corresponding to a monthly inflation of about 10 percent) had led many analysts, including government analysts, to imagine that this was the true level of present Brazilian inflation, around which monthly inflation rates would fluctuate. Actually, since the beginning of 1985, the level of inertial inflation in Brazil had already changed to an annual rate of almost 280 percent (an average of 12 percent per month). On the eve of the shock, after the accelerating factors that affected inflation in the second semester of 1985, this level was now nearly 350 percent a year (between 13 and 14 percent per month).

1

In 1985, a partial price freeze between April and July artificially lowered inflation for this period and altered the results for the year, helping to confirm the illusion that the real level of inflation continued to be a little above 200 percent. Actually, as we can see in Table 9.1, the annualized rate of inflation in terms of the IPCA between December 1984 and March 1985 (the previous government) was already 274.8 percent. It went down temporarily to 155.8 percent in the period of the sectorial price freeze, and then in the last six months (August 1985 to January 1986) rose to 305 percent. The results in terms of the IGP are similar, with the differences between the three periods more accentuated because of the greater weight of

Table 9.1 Inflation Annual Rates (%)

Periods	IPCA	IGP
December 1984 - March 1985	274.8	268.8
April 1985 - July 1985	155.8	149.6
August 1985 - January 1986	305.3	334.4
November 1985 - January 1986	360.2	453.7

Sources: FIBGE and Getúlio Vargas Foundation

intermediary goods. In the period after the freeze, annualized inflation rose to 334.4 percent in terms of the IGP.

Price freezes produce remarkable results while the controls are enforced. Even in an economy in which a chronic inflationary process has attained very high rates and is rooted deeply in the habits of the population, the results are spectacular. However, when the price freeze is partial and covers only some sectors, as soon as the controls are removed we have "corrective inflation" and the rate of inflation returns to the previous level. When the price freeze is partial, the "corrective inflation" becomes inevitable after some months in order to reestablish the struture of relative prices. We will have either shortages in the private sectors or an increase in the public sector deficit, if, as is usual, the prices of state-owned companies have been preferentially frozen. Therefore, the gains against inflation are temporary and, if the controlled sectors are able to recover the losses incurred during this period by increasing their profit margins, the final level of inflation may be even higher than the one previous to the partial freeze.[2]

The effect of a partial price freeze on the rate of inflation depends directly on the weight of these controlled prices in the overall price index and, indirectly, on their effect on the uncontrolled prices through increases in the cost of raw materials and in wages.

2

The change in the inflation level during 1985 from 280 percent to about 350 percent is the result of three accelerating factors: (1) an increase in the average real wage rate considerably above the increase in productivity (about 10 percent); (2) an increase in agricultural prices beginning in October; and (3) pressures from demand caused by a great expansion of exports in many of the industrial sectors. A fourth factor—"corrective inflation" aimed at reestablishing profit margins and recovering the losses suffered by the corporations during the freeze period—did not have its full effect because the government, through the CIP, only allowed a partial recovery of profit margins.

The increase in the monthly inflation level in 1985, from 12 percent to 13.5 percent, was not greater because two decelerating factors were neutralizing the above mentioned accelerating factors: (1) a reduction of the real interest rates, and (2) an increase in corporations' utilization of idle capacity. The first factor mainly reduced the variable costs and the second the fixed costs of the corporations, so that they did not have to pass on all of the increases in real wages to prices.

The acceleration of economic growth is a decelerating factor for inflation as long as there is idle capacity and, therefore, the possibility of reducing fixed costs. It turns into an accelerating factor for inflation (pressure from demand) when, as idle capacity and the reserve army of unemployed workers are exhausted, corporations begin to increase their profit margins and the workers their real wages. In the first three quarters of 1985, the acceleration of economic growth was a decelerating factor for inflation; in the last quarter of the year, as idle capacity and unemployment were declining, it became an accelerating factor for inflation.

3

The estimate of the inflation level on the eve of the shock at around 350 percent a year is, naturally, an approximation. If we annualize the inflation between November 1985 and February 1986, we will have an inflation of 360.2 percent according to the IPCA and of 453.7 percent according to the IGP. This last index shows the acceleration of inflation that occurred in the last quarter of 1985 more clearly because it reflects the increases in the prices of intermediary goods immediately. However, it exaggerates the increase of inflation, and thus cannot serve as a base for the definition of the new inflationary levels. On the other hand, the level of the inflation rate in January was clearly exceptional. For this reason, it seems to be more realistic to accept a trend level for inflation of 13.5 percent per month (corresponding to an annual inflation of 366.4 percent).

4

This high rate of inflation on the eve of the shock provoked a generalized fear that Brazil was entering an explosive inflationary spiral that would rapidly lead to hyperinflation. This fear, while understandable, did not make sense. One of the characteristics of Brazilian inertial or autonomous inflation is its inflexibility, not only downward, but also upward. Inflation accelerates in Brazil, but slowly, by stages, rather than in an explosive and uncontrolled way as happens with classic hyperinflation.

This relative upward rigidity of Brazilian inflation was mostly because of generalized indexation, that is, to the existence of legal monetary correction, which, among other things, allowed the real exchange rate to remain constant (the nominal exchange rate was devalued daily according to the inflation rate). In Germany and other countries where hyperinflation has occurred through an inflationary spiral, there were real devaluations daily, and the flight to more stable foreign currencies was possible. It was these continuous real devaluations and large-scale flight that produced the explosive inflationary spiral and led to hyperinflation. The mechanism was simple. Given the then inflation, the government was obliged to increase the money supply in order to cover its growing obligations and to minimally maintain the liquidity of the system. Money placed in the hands of the public was immediately changed into dollars or other foreign currencies. The demand for dollars was so intense that it provoked daily real devaluations of the local currency. Real devaluations of the local currency were a very powerful accelerating factor for inflation because they raised the costs of imported goods and, via the propagating effects, domestic costs (Gerald Merkin 1982).

In the case of Brazil, the situation was completely different. The government was also forced to expand the money supply, but cruzeiros were not changed into dollars. Given the existence of an indexed financial market, the cruzeiros were applied in this market: they financed the public deficit. Also, the real exchange rate remained constant except for when there was a maxidevaluation, as happened in February 1983.

5

Meanwhile, although we can remain reasonably calm about the small probability of an inflationary spiral, we should also be realistic enough to recognize that if inertial inflation is inflexible upwards, it is even more inflexible downwards. Because of this, it is completely unrealistic to imagine, as the then government seemed to do, that it is possible to return to a monthly inflation of 10 percent through the use of administrative price controls and a good administration of the stocks of agricultural products.[3] This strategy for fighting inflation is highly recommended, but its primary objective is not to reduce inflation, but to keep it under control, to prevent it from accelerating.

Actually, inertial inflation like Brazil's, which had already passed 300 percent, could not be fought with gradualist methods, be they orthodox or unorthodox. The only solution was a heterodox shock, the heroic policy for combatting inflation that we discussed in the last section of Chapter 3.

The gradualist orthodox policy is recommended by the IMF. It is based on fiscal and monetary contraction, cutting aggregate demand and leading the economy into a recession, which would provoke a reduction in real wages and in profit margins and, therefore, would decelerate inflation. The gradualist unorthodox policy is based on administrative control of prices, using a declining future inflation as a guideline.

Apart from the fact that the orthodox policy is inefficient because it is based on a generally incorrect diagnosis of inflation (demand inflation), both the orthodox and unorthodox gradualist policies are ineffective because, at this level of inflation, any supply shock cancels out all efforts to combat it through price controls, monetary and fiscal containment, or a combination of both these policies. An agricultural shock, a wage shock, a maxidevaluation, or "corrective inflation" measures cancel in one day what took months to attain.

This does not happen when inflation is much lower—at a level of 20 percent or 30 percent—because, at this level, the annual increase in productivity is an important instrument for decelerating inflation, and because the trade-off between unemployment and inflation is significant. Gradualist policies are effective as long as they make it possible that the increases in productivity are not immediately transformed into increases in nominal wages, but rather into reductions in costs and prices. One of the causes of inflationary deceleration in the central countries, beginning in 1980, was this capacity to take advantage of gains in productivity. However, it is clear that when inflation reaches levels above 300 percent, this utilization of the increases in productivity becomes marginal. If an orthodox policy is adopted, the loss in output necessary for a sensible effect on inflation is unbearable. It is also easily cancelled out by eventual offer or demand shocks.

6

If Brazilian inflation is inertial and has already passed the level of 300 percent, gradualist policies for combatting it, either orthodox or unorthodox, are ineffective. At this point, there is only one conclusion: only a heterodox shock can wipe out Brazilian inflation.

However, there are important obstacles to the adoption of a heterodox shock. In the first place, there is a lack of understanding of the nature of the Brazilian inflationary process. There is not yet a proper understanding of the inertial character of inflation. The government still insists on relating inflation to the public deficit and the increase in the money supply while both these phenomena have mainly been factors that sanction inflation, which is proceeding inertially and autonomously. Many officials do not clearly understand that, because of the distributive conflict and indexation, past inflation tends automatically to reproduce itself in the present. As the readjustments of prices are not synchronized, the economic agents have no other alternative than to pass on their cost increases to prices. Otherwise, they would lose their relative participation in the national income.

Second, lack of synchronization in the readjustment of prices, especially of wages, greatly complicates the choice of a D Day for the heterodox shock to freeze prices and wages. The alternative of creating a formula for the conversion of all wages to the average on D Day is theoretically correct but politically difficult to implement (Modiano 1986). In Argentina, where wages were increased monthly, the choice of the fifteenth of the month as the D Day satisfied all the needs for relative distributive neutrality. In Brazil, we either could have fused a conversion formula for wages or we would have had to wait for much higher inflation levels than the then present ones for the shock to be successful.

An increase in the inflation level is necessary for another reason. Because a policy of a general freeze of prices, wages, and the exchange rate presents certain risks, it demands a lot of political determination and popular collaboration. In other words, it demands general indignation against inflation, which, because of the mechanism of indexation, still is not strong in Brazil.[4]

It is also important to point out that the inflation rate can be broken down into three components: inertial, demand, and supply shocks. Obviously, if the price system is subject to a supply shock or demand pressure, these must be assimilated or removed for a heterodox shock to be successful. In this situation, the demand presssures are still weak, but the forecasts of bad harvests due to draught in the southern states generated an agricultural price shock at the beginning of 1986. This means that the price system is still absorbing the shock that provoked the disequilibrium in the structure of relative prices.

This fact can be observed in the wide dispersion of the sectorial rate of inflation. When inflation was essentially inertial in the second semester of 1984, the standard deviation of the rate of sectorial inflation was about 20.0, but, at beginning of 1986, it reached 52.0, thus showing the effects of the shock. Therefore, it is necessary to wait some months in order to reestablish the equilibrium of the structure of relative prices. Then we will have more viable conditions for a heterodox shock.

Finally, there is the misgiving that a heterodox shock would be accompanied by a serious recession, as happened in Argentina. Actually, this risk does exist. It is difficult to imagine getting rid of inflation without any sacrifices. Although the government deficit is a result rather than a cause of inflation, it should be reduced. An exchange devaluation should take place on the eve of the D Day. Interest rates should be kept at relatively high levels in order to avoid the flight of capital. But it is necessary to consider that the situation of Brazil is very different from that of Argentina. Brazil's industrial complex is very solid, its export surplus has structural characteristics, its public sector borrowing requirements (operational public deficit) are smaller, and the risk of capital flight much less. Therefore, there is no reason to fear a strong recession in Brazil.

7

The great problem of the Brazilian government in these next months will be to continue its gradualist administrative policy of fighting inflation, even though it knows that the results of this kind of policy are limited, given the high level of inflation. At the same time, it must prepare for a heterodox shock.

The government has a few factors in its favor, especially the large trade surplus, the successful negotiations of the foreign debt, a fiscal reform that allows for a reduction of the operational public deficit, and the improvement of the financial situation of the state-owned corporations. Meanwhile, there is no need for pessimism or alarmism. Inflation has moved to a higher level, but it is not out of control. It is a cause for concern and keeps the government and society under strain, but it can be tamed.

February 1986

Notes

1. IGP is the general price index calculated by the Getúlio Vargas Foundation traditionally used as the measure of inflation and indexation in Brazil, except for wage indexation. IPCA is the amplified consumer price index calculated by the Brazilian Institute of Geography and Statistics (IBGE). The IPCA has replaced the INPC, the national consumer price index,

and the IGP as the basis for official indexation in Brazil since November 1985. The INPC measures cost-of-living increases for families earning up to five minimum wages, and the IPCA for families earning up to thirty minimum wages. Starting in March 1986, the IPCA was replaced by the IPC, the consumer price index. The objective of this substitution was not to include about fifteen days of the inflation in February in the calculation of the inflation in March.

2. *See* Luiz Bresser Pereira and Fernando Maida Dall'Acqua (1985) for a more complete and formal development of this argument.

3. This chapter was originally written in February 1986, a few days before the shock.

4. This indignation began to be shown at the beginning of 1986. *See*, for example, Geraldo Forbes, "O santo guerreiro e o dragão da maldade", in *O Estado de São Paulo*, 2 February 1986.

10

The Difficulties of the Cruzado and the Austral Plans

Six months after the Cruzado Plan was implemented on 28 February 1986, its success in solving the specific problem for which it was created—the elimination of inertial inflation—is undeniable. Inflation, which was around 350 percent a year, fell to a figure of somewhere between 15 and 20 percent. However, strong inflationary pressures threatening the continuity of the success of the plan persist. Conversely, fourteen months after its implementation (on 16 June 1985) the Austral Plan has failed to eliminate inflation, while Israel's second heterodox stabilization plan, thirteen months after its D Day in July 1985 has succeeded in eliminating inertial inflation.

After fluctuating at around 4.5 percent a month between March and June 1986, Argentine inflation reached 6.8 percent in July and 8.8 percent in August. The annualized inflation for June, July, and August reached 118 percent, and that of August, 175 percent. The situation for the Cruzado Plan is more favorable for the moment, but if urgent measures are not taken to reestablish the micro- and macroeconomic balance of the plan, the freeze by itself will certainly not be capable of preventing the resurgence of inflation. In Israel, the success of the reform is more solid. About half of the price controls have been removed and the monthly rate of inflation is below 1.5 percent. The public deficit has been severely reduced while the level of production and employment has been kept stable.

Given those inflation rates, the freeze in Argentina has definitely been broken. Inflation is in full acceleration, which will only end when the new readjustments of prices and wages are relatively able to neutralize the most recent price increases. At this point, the inertial component of inflation would then become dominant again and, as has already happened in Israel, a new shock could be attempted.

1

There are those who mistakenly attribute the failure of the Austral Plan to the relative lifting of the price freeze that took place in April. This partial price liberalization, however, was already a consequence of inflationary pressures that had not been resolved. In a capitalist economy, it is impossible to maintain a price freeze for a long time. Either the government eliminates the main inflationary pressures and then proceeds with a planned lifting of the freeze, or else it does not manage to eliminate the accelerating factors of inflation and thus is forced to liberate prices because of the irresistable pressures from imbalances in the market. It was the latter alternative that prevailed in Argentina.

It is important, therefore, to know what these imbalances were and what the origin of these inflationary pressures was. Theoretically, we can have two kinds of imbalances: the macroeconomic ones that are represented by an excess of aggregate demand and the microeconomic ones that are explicit in the imbalances of relative prices.

Everything indicates that the Argentines were not dealing with a macroeconomic imbalance or, more specifically, with excess demand. Even though the public deficit had not been completely eliminated, it was significantly reduced. However, the economy definitely remained in recession until the beginning of 1986. In the first quarter of 1986, the growth of the GNP was only 0.4 percent, as compared to the same period in the previous year. Recently, a clear process of expansion has taken place, registering growth of 5.7 percent in the second quarter, but the levels of unemployment and idle capacity are still very high.

The imbalances that were not resolved, therefore, could only have been microeconomic. The economic authorities were unable to resolve the distortions in relative prices that existed on 16 June 1985, when the shock was applied. When the pressures from the sectors that suffered losses became unbearable, the floodgates began to open. The heating up of demand that took place at this point probably helped this process along—the freeze began to break. As a result, the pressures from workers for wage readjustments and exporters for exchange devaluations became stronger and stronger. When there was no other alternative except to give in to the pressures from wages and the exchange rate, the freeze lost its force and inflation entered into a straightforward process of acceleration, which probably has not yet ended.

2

The same thing does not necessarily have to happen in Brazil. The present situation of the Brazilian economy is much more favorable than that of Argentina's. Production is expanding. Although it is investing with moderation, industry is incorporating technical progress at an accelerated pace. The trade superavit is still very high. The Brazilian financial system is much better organized and developed than Argentina's. Its industry is more modern and competitive, and the fiscal system is much more developed. Last, the state bureaucratic apparatus is much better equipped. For all of these reasons, the Brazilian government has more effective means for carrying out its economic policy and controlling its economy. Perhaps it is for these reasons that inflation, in the first six months of the Cruzado Plan, was considerably lower than the corresponding inflation of the Austral Plan: 6.4 percent from March to August 1986 in Brazil as opposed to 20.1 percent from July to December 1985 in Argentina.

However, there is no question that the Brazilian economy is faced with serious macroeconomic and microeconomic imbalances. At first, the economic expansion, which reduced fixed unitary costs, and the reduction of the interest rates helped to neutralize the imbalances in relative prices, which the government itself did not feel able to solve. Next, however, an extraordinary increase in consumption changed the economic expansion into a serious macroeconomic distortion, which the compulsory loan and raising of the internal interest rate are not capable of resolving.

There is no question that the Cruzado Plan finds itself in a dangerous situation now. Part of the support that it initially received does not exist anymore. Consumers are irritated and disappointed with the lack of merchandise, with waiting lines and overpricing. Even though they are earning good profits, businessmen feel that their control over their own activities is threatened. Those who are the most conservative or who have lost the most say that the economy is being nationalized, that Brazil is being turned into a police state, and they place themselves more and more against the freeze.

In this situation, the mere insistence of the government in maintaining the freeze does not resolve the problem. It is essential to maintain the freeze for now, but it is also essential to reestablish the microeconomic balance of relative prices and the macroeconomic balance of aggregate supply and demand.

3

The Brazilian economy as a whole, which should not be confused with the Cruzado Plan, continues to show an extremely favorable performance. Between March and June of 1986, industrial production grew 12.4 percent and wholesale sales were up 29.9 percent in relation to the same period in the previous year. The unemployment level fell from 5.6 percent in June 1985 to 3.8 percent in June 1986. Real wages increased 14.6 percent from one year to the next. The foreign commercial superavit accumulated in this year continued at around $13 billion, although an increase in imports and a fall in the prices of some primary export products are begining to threaten this favorable result and make us remember that the external debt is still a serious unsolved problem.

Actually, this excellent performance of the real sector of the economy is the first problem of the Cruzado Plan. The extraordinary increase in consumption, widely overtaking the increase in production, implies shortages of supplies, waiting lines, and inflationary pressure translated into an increase of profit margins through either overpricing or the elimination of financial discounts on term sales. Contrary to what is generally stated, there is still idle capacity in the economy, but this does not prevent the inflationary pressures that come from the appearance of bottlenecks, especially in the supply of raw materials and meat. The new expansive cycle of the Brazilian economy, which began in 1984, has reached a peak in 1986—which the Cruzado Plan had favored.

The question of demand should be put into proper terms. Demand has not reached an excessively high level, but rather has had an excessively rapid recovery. According to the survey of the Getúlio Vargas Foundation of July 1986, the average degree of capacity utilization reached 82 percent, less than the record levels of 1972 and 1973—89 and 90 percent respectively. Industrial production only recovered to the average level of 1980. It is true that some sectors had already reached almost full capacity, such as nonferrous metals, cellulose, textiles, plastic containers, etc. It is also true that the level of demand became excessive in those sectors in which the flow of goods and services depends on stocks (which were greatly depressed after almost four years of recession), as in the case of beef herds. But the biggest problems are occurring in the sectors that still have some idle capacity, but which are faced with a scarcity of raw materials and thus are unable to expand production. This happens basically because demand has grown explosively and, in many segments, it is not possible to simply double production every two or three months, as has been happening with the demand for certain consumer goods. That is why the

Getúlio Vargas Foundation survey shows that the consumer goods sector is utilizing only 72 percent of its capacity and that 45 percent of the corporations have had difficulty in expanding production because of a scarcity of raw materials.

The situation will probably get worse in the last quarter of the year, as industry traditionally operates at levels 10 to 15 percent higher in this period than the average for the rest of the year in order to meet the end-of-year demand. Demand should also continue to expand in order to restore stocks, which are at a very low level. Faced with this situation, the government's hesitation in taking urgent fiscal policy measures to decelerate the growth of demand is hard to understand. Given a diagnosis that the problem is not an excessive and generalized level of demand in relation to productive capacity, but rather an excessive rhythm of expansion, a fiscal policy should contain this growth without the need to reduce the level of employment.

The second problem is the new outbreak of pressure from the trade unions for higher wages, which is added to the pressure from the market itself, especially for specialized labor. The explosion in the demand for labor and the higher demands of the trade unions has led to real increases in wages, which are considerably higher than the increase in productivity. These wage increases will not be translated into a reduction of profits only if they result in increased prices instead.

The Cruzado Plan' s third problem is the microeconomic imbalance of relative prices, or prices which have been "ahead" or "behind" since the day of the shock. The shortage of merchandise in the stores is not due only to excess demand, but also to the fact that the producers, especially those who can substitute products, stopped making a series of goods whose prices were behind on 28 February. Almost half of the products with set prices (all prices have been frozen, and about 500 products had their prices set in order to make the control easier), for example, are disappearing from the retail stores because their producers stopped making them, substituting for them whenever possible with new products. When the producer manages to substitute for the controlled goods, he solves his problem by provoking a small amount of inflationary acceleration; when he cannot do this, it appears immediately as a focus of repressed inflationary pressure.

The problem of the retail companies, on the other hand, is far from being solved. The financial discount they were supposed to receive from their suppliers in order to compensate for the end of inflation (since these suppliers had built an average monthly inflation of 14.6 percent into their term sales) should be 12.6 percent a month, but, in practice, ended up being an average of 5 percent. Those suppliers that gave greater discounts are now taking advantage of the excess demand, without formally disregarding the freeze, to reduce or eliminate the discounts, leaving the retailers in a difficult situation in spite of the increase in sales.

On the other hand, the corporations whose prices were ahead on 28 February and those that gave an insufficient financial discount to their customers saw their profit margins increase substantially. The increase in margins, together with the increase in sales, has led to an incredible increase in profits. The auditing companies have calculated that, in the first half of 1986, the profits of the industrial corporations would be, in real terms, approximately double the profits for the same period of 1985. This increase in profits allowed the corporations to concede significant real wage increases to their workers, which, in turn, stimulated consumption even more and therefore accentuated the imbalance between aggregate supply and demand.

These inflationary pressures built into the macroeconomic imbalance between aggregate supply and demand, the pressures from wages, and the unresolved distortions in relative prices will accelerate inflation as soon as the price freeze is lifted.

On the other hand, given an operational public deficit of between 4 and 5 percent of the GNP, while the economy is operating at close to full capacity, the public finances are still unbalanced, thus creating a fourth focus of inflationary acceleration. In 1986, this deficit is being partially financed by the monetization of the economy. The same level of deficit is predicted for 1987, during which the contribution of the compulsory loan should be less than 1.5 percent of the GNP. Assuming that bonds will be issued, corresponding to another 1.5 percent of the GNP, there is still between a 1 and 2 percent deficit that will either be financed by new international loans and/or by an increase in taxes.

Faced with these inflationary pressures, the government has taken some steps, such as the compulsory loan on the purchase of gasoline, cars, trips abroad, and raising interest rates. Its basic strategy, however, is too simple. It consists of trying to maintain the price freeze at all costs, even by using the police. For some members of the government, "the Cruzado Plan is the freeze," which therefore should be maintained indefinitely.

The Cruzado Plan is not the freeze, and the freeze should not be maintained indefinitely; it is a shock that was applied to the economy to try to eliminate inertial inflation. However, it cannot show a lack of respect for the law of value that rules the functioning of the market. The freeze succeeds in eliminating the factors that maintain inflation; it does not eliminate the accelerating factors of inflation that operate in the market: excess demand, uncontrolled increases in wages, and imbalances in relative prices. In order to control these accelerating factors, additional measures of economic policy are needed. These factors can only be temporarily repressed until the imbalances in the market are solved or until the moment that these pressures become irresistible and the freeze is broken.

The second alternative is the one that prevailed in Argentina. Although the Austral Plan was not faced with the problem of excess demand, it was neither able to contain wages nor resolve the problems of relative prices.

It is still too early to predict what the level of inflation will be in Brazil when the price freeze is lifted. The government will try to put this moment off as long as possible while it tries to correct the macroeconomic imbalance between aggregate supply and demand and the microeconomic imbalance of the relative prices. Meanwhile, if it does not show more energy in solving the problem of excess demand and in correcting the lagging prices, the Brazilian economy will be faced with a new inflationary acceleration in 1987. As for the lagging prices, it will have to make a choice between a little more inflation now or uncontrolled inflation in the near future. And, as for the macroeconomic imbalance, it will have to increase taxes and cut public spending. If these micro- and macroeconomic imbalances are not corrected rapidly the pressures from the market will be so strong that the freeze will break up, and, after a transitional period of acceleration of inflation, a high level of inertial inflation will be necessary. In this case the only reasonable alternative will be a second heterodox shock followed by a more firm conduction of aggregate demand and of relative prices.

September 1986

Statistical Appendix

Table 1 BRAZIL'S INTERNAL SECTOR (Annual rate of growth %)

Years	GDP (Gross Domestic Product)	Real Average Wages in Industry[a]	INFLATION		Money Supply (MI)	Real Public Deficit (% of GDP)
			General Price Index-Domestic Supply (GPI-DS)	Consumer Price Index[b]		
1970	8.3	1.0	19.2	22.7	26.5	-
1971	12.1	3.2	19.8	20.2	32.3	-
1972	11.1	4.1	15.7	16.4	38.3	-
1973	13.5	4.8	15.5	13.7	47.0	-
1974	9.7	0	34.5	33.9	33.5	-
1975	5.4	7.9	29.4	31.2	42.8	-
1976	9.7	4.7	46.3	44.8	37.2	-
1977	5.7	6.7	38.8	43.1	37.5	-
1978	5.0	8.4	40.8	38.2	42.2	-
1979	6.4	4.6	77.2	76.0	73.6	8.3
1980	7.2	– 0.3	110.2	94.6	70.2	6.7
1981	– 1.6	10.2	95.2	92.7	87.2	5.2
1982	0.9	10.9	99.7	103.3	65.0	6.2
1983	– 3.2	– 10.1	211.0	164.4	96.4	3.0
1984	4.5	1.3	223.8	208.9	201.0	1.6
1985	8.0	5.0	235.1	233.7	312.0	3.2

Source: Central Bank of Brazil

(a) Between 1970/1974 the real rates were obtained from a survey of 18 unions in São Paulo (Source: Bacha and Taylor, Models of Growth and Distribution for Brazil, Washington, World Bank, 1980). From 1975 to 1985, the sources is IBGE Foundation. Nominal wages were deflated by the consumer Price Index of DIEESE.

(b) Until 1979 the variation was obtained from the Consumer Price Index for Rio de Janeiro, Getúlio Vargas Foundation. From 1980 to 1985, the variation refers to the extended national price index of the IBGE Foundation.

Table 2 BRAZIL'S EXTERNAL SECTOR (US$ millions)

Years	Exports	Trade Balance	Deficit in Balance of Real Transactions	Interest Payments	Current Transactions	Liquid External Debt
1970	2,738.9	232.0	299.0	284.0	− 562.0	4,108.5
1971	2,903.9	− 343.5	979.5	344.0	− 1,307.0	4,898.7
1972	3,991.2	− 244.1	1,005.0	489.0	− 1,489.0	5,337.8
1973	6,199.2	7.0	875.5	839.5	− 1,688.0	6,155.7
1974	7,951.0	− 4,690.3	5,752.3	1,370.1	− 7,122.4	11,896.6
1975	8,669.9	− 3,540.4	4,909.9	1,804.3	− 6,712.2	17,130.9
1976	10,128.3	− 2,254.7	3,978.6	2,039.4	− 6,017.0	19,441.5
1977	12,120.2	96.8	1,574.9	2,462.4	− 4,037.3	24,781.1
1978	12,658.9	− 1,024.2	2,657.2	3,342.4	− 5,927.4	31,615.6
1979	15,244.4	− 2,839.5	5,412.0	5,347.5	− 10,741.6	40,215.5
1980	20,132.4	− 2,822.8	5,517.8	7,457.0	− 12,807.0	46,934.9
1981	23,293.0	1,202.4	1,627.6	10,305.2	− 11,734.3	53,904.0
1982	20,175.1	780.1	3,751.8	12,550.6	− 16,310.5	66,204.0
1983	21,899.3	6,470.4	− 3,318.3	10,263.2	− 6,837.4	76,756.3
1984	27,005.3	13,089.5	− 11,323.1	11,448.8	44.8	79,095.7
1985	25,639.0	12,450.0	− 9,600.0	11,092.0	267.8	81,453.0

Source: Central Bank of Brazil