

# **Inflation in Brazil—the Principles of Monetary Correction**

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"Free Enterprise was born with man and  
shall survive as long as man survives."

—A. D. Shroff

1899-1965

Founder-President  
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## INTRODUCTION

Inflation as a world-wide phenomenon has engaged the attention of economists and ordinary citizens, because it touches all. A novel method of mitigating the serious effects of inflation is called Monetary Correction. The successful Brazilian experiment of introducing the monetary corrective to inflation has been the subject matter of considerable discussion.

The entire subject was dealt with in the layman's language by the successful author of *Monetary Correction in Brazil*, its former Minister of Finance, Dr. Roberto de Oliveira Campos, in the inaugural Chairman's lecture instituted by the Stock Exchange, London, on 19th November 1974.

We are grateful to the author, Dr. Campos, who is presently Brazilian Ambassador in the United Kingdom, and the authorities of the London Stock Exchange for permitting us to reproduce the text, in this booklet form.

Students of economic affairs who are interested in a further study of this subject may profitably read a publication by the Institute of Economic Affairs (2 Lord North Street, Westminster, SW1P 3LB, London) — Occasional Paper 41, "MONETARY CORRECTION" by Prof. Milton Friedman.

# Inflation in Brazil—the Principles of Monetary Correction

**Dr. Roberto de Oliveira Campos**

In the late 'sixties and early 'seventies, together with an unprecedented industrial boom and expansion of international trade, signs of tension and disruption began to emerge in the market economies of the Western World and Japan: firstly the inflationary upsurge, then the breakdown of the international monetary system culminating in the dollar devaluation of August 15th, 1971, then the food crisis of 1972-73 and the increasing tensions within the European Economic Community. The recent energy crisis was a rude jolt that aggravated all of those problems and added a touch of political frustration; raw material producers, traditionally price-takers, suddenly became "price-makers" in the world market arena.

Many people who had regarded the euphoria of the late 'sixties and early seventies as a *deuxieme belle epoque* now bemoan the onset of a strange disease, "the sinistrosis," perhaps a recurrent and more vicious manifestation of the *malaise de fin de siecle* which at times afflicted the history of Western civilisation.

Inflation, undoubtedly a major component of this "malaise," is now too widespread and too unwieldy to conventional treatment to be dismissed as a tropical disease or as a sign of moral laxity. It is likely in fact to become a permanent companion rather than an obnoxious visitor.

We have to reconcile ourselves to four facts of life, unpleasant as they may be. Firstly, money has lost some of its conventional functions. It is still a means of payment, but inflation has eroded its reliability as a store of value and unit of account. *Secondly*, present inflation is not only quantitatively more violent and geographically more widespread than before, but it is also qualitatively different, deeply

embedded as it is in modern social structures, because of sundry factors: the rise of the service economy; the unidirectional flexibility (in the upward sense) of wages and administered prices; the claims of the welfare state; the political intolerance to unemployment and the societal commitment to economic growth. This commitment may result either from exercises of "gapmanship" in developing countries, that is, the desire to emulate the achievements of wealthier nations, or from "consumerism," that is, the continuous dilation of the consumers' horizon in developed countries. The theory of a "zerogrowth" economy that might alleviate inflationary pressures and protect the environment is an interesting intellectual exercise but certainly not yet practical politics.

The *third* fact of life is that more and more, due to costs and price rigidities, rebellious to the conventional medicine of monetary and fiscal policies, except at the cost of temporary unemployment, inflation is more and more associated in many countries with stagnation, generating *stagflation* or *slumpflation*.

The *fourth* fact of life — and indeed a novel one — is the threat that inflation is posing for the fabric of Western democracies. Even well-established democratic systems are beginning to feel the onslaught of two-digit inflations. The political discomfort derives from two phenomena attending the anti-inflationary battle: the *lag* and the *asymmetry*. The lag is composed of three intervals: the *technical* delay in identifying the root causes of inflation; the *administrative* delay in enacting the appropriate monetary, fiscal and income policies; and the *operational* lag — that is, the time lapse before meaningful results are harvested. This period of waiting is fertile in doubts, anxiety and political bickering. The *asymmetry* derives from the peculiar fact, that, though inflation is unpopular, the measures to combat it don't enhance the political acceptability of governments. The pains of inflation are diffuse, while the specific corrective measures hurt directly some of the most vocal sectors of the community: labour unions, which fret about wage controls; business, which resents credit restrictions and price

curbs; and politicians, who dislike constraints on public spending for their constituencies.

Under those circumstances, frequent electoral consultations characteristic of the democratic system are likely to prove disappointing; they may result at best in "stop-go" policies, through an ineffectual alternation of austerity and relaxation; at worst, they generate excessive political instability. In weaker societies, and that is the case of the developing countries, tensions are likely to be stronger, for those countries cannot afford to postpone growth—pressed as they are by poverty and unemployment; a desperate search for authoritarian solutions to arbitrate conflicting claims may ensue, an outcome which, though certainly not commendable, is at least understandable.

If there are any favourable by-products of the present inflationary travail of industrial societies, I would list two: firstly, a welcome degree of humility of their politicians and economists, who no longer claim mastery over recipes of social discipline and economic viability; and a great tolerance in relation to the plurality of political systems, in recognition of the impossibility of uniform solutions for the delicate and vital "trade-off" between liberty and social discipline, welfare and capital accumulation, price stability and economic growth.

If this analysis is correct, if modern inflation is a much more intractable beast than it used to be—it is time that the frustrating pursuit of policies of *eradication* be tempered with the study of techniques of *cohabitation*. In this chapter, the Brazilian experience of *indexation* becomes a relevant subject of enquiry. It is certainly not a novel technique. Indeed, it has an honourable place in Anglo-Saxon economic literature. As noted by Professor Milton Friedman, the idea was broached as far back as 1707 by William Fleetwood, a Cambridge don; John Whitley pursued it in 1807; Joseph Lowe in 1822; while Jevons in 1875 explicitly proposed the creation of a "Tabular standard of value." And no lesser a person than the great Alfred Marshall in 1885 made a spirited defence of the "Unit of constant purchasing power." Irving Fisher in the United States, around 1911-12,

defended the idea of the "Commodity standard." Lord Keynes, belabouring on Marshall's earlier idea, suggested the creation of an index-linked Government bond in 1924. In the practical world, limited pioneer experiences in indexation have been staged, with indifferent success, by France, between 1951 and 1968, and somewhat more boldly by Finland between 1946 and 1958.

But if the Brazilians have not the merit of inventing indexation, they discovered the need for cohabitation with inflation and acted rather boldly to generalise its application, in an effort to convert sin into virtue. *Historical, structural and political* reasons, which may not be present elsewhere, combined to render the experiment both possible and reasonably successful. *Historically*, there was a tradition of chronic inflation. In the immediate post-war period inflation hovered around 11% per year, rising to 17% between 1958 and 1968, galloping into a pace of over 30% between 1959 and 1963, escalating to more than 80% in 1963 and exploding into a rate of over 100% in the first quarter of 1964. *Structurally*, the existence of a dualistic economy with surplus labour, in either overt or disguised unemployment, particularly in the north-east, facilitated the implantation of wage restraints. Also the trade unions did not trace their creation to social battles in the market place, but originated rather from paternalistic prodding by the Government, thus lacking some of the political combativeness and revindicatory vigour of trade union movements elsewhere. *Politically*, the near chaos into which the country was plunged in 1963 and early 1964 created a yearning for social discipline, and rendered acceptable some temporary constraints on two of the traditional revindicatory coalitions—Congress and the trade unions—which, indispensable as they are in modern societies, do tend either to inflate the Governmental spending budget or to push wages beyond the limits that can be accommodated by productivity increases, or yielded by a reasonable manipulation of income policies.

Let us now consider the methodology of the Brazilian experiment and the components of the system before trying to assess its results.

The experiment started from the realisation that, since a shock-treatment for inflation was unfeasible, *gradualism* was inevitable. Given the psychological vices arising from chronic inflation and the deformation wrought into the asset structure of the firms, a shock-treatment involved the risk of a wholesale destruction of the entrepreneurial class followed by heavy unemployment, without in itself correcting distortions in relative prices, some of which had remained pegged, in a desultory effort to conceal the symptoms rather than extirpate the roots of inflation. An ensuing political backlash might result, forcing a relaxation of anti-inflationary policies and inaugurating a vicious "stop-go" pattern of behaviour.

The effort then concentrated on analysing the textbook "evils of inflation," with a view to minimising them, in order to give us time for attempting to reconcile gradual dis-inflation with a resumption and, if possible, acceleration of growth.

Those textbook evils attributable to inflation can thus be catalogued:

1. *Erosion of the savings instinct and distortions in the credit mechanism*, brought about by the prevalence of negative interest rates. These either discouraged savings or channelled them into undesirable directions, such as property or foreign currency hoards. As a consequence of the dwindling supply of savings, medium and long-term credit, including mortgage credit, tend to disappear, while the allocative function of the interest rate as between more or less productive uses is also impaired.

2. *Instability and disorderliness in the wage structure*. Labour groups vie with each other in frantic and increasingly short-spaced wage claims, rewards going not to the most productive but to the politically most strident labour sectors.

3. *Balance of payments disequilibrium*, as excess demand, often coupled with inflexible exchange rates, stimulates imports and inhibits exports.



4. *Disincentive to investment in the economic infrastructure* — utilities, transport and heavy industry—both as a result of the shrinkage of long-term savings and of the almost irresistible temptation of freezing certain strategic prices and tariffs of basic services and goods.

5. *Distortions in the tax system.* As book values cease to reflect the real value of capital assets, income taxation begins to bite into illusory profits, working capital is depleted and depreciation allowances become inadequate. There is abnormal incentive to evade or postpone tax payments. Finally, unintended tax progression at the wrong place may occur, as lower income groups start being taxed simply because of a rise in nominal income even though there may have been no real welfare gain.

A number of devices were engineered and gradually implanted between 1964 and 1967 to neutralise the main evils of inflation. The essential components of the Brazilian formula were:

(a) *Generalised indexation for all forms of saving*—Government bonds, housing bonds, medium and long-term banking deposits, medium and long-term acceptance papers. As a counterpart, medium and long-term loans were also indexed. These measures had a healthy effect in preventing bottlenecks in the financial market and created a strong market for Government bonds, enabling the Government to raise non-inflationary revenues for developmental projects.

(b) *The wage formula.* The formula, enacted by law, disposes that wage readjustments be spaced out at intervals of one year, on the basis of the following elements: recomposition of the average real wage of the preceding 24 months (modified now to a 12-month period), plus a productivity coefficient estimated by the Government to represent the average increase in the productivity of the economy, and, finally, a co-efficient representing the inflationary residual—that is, half of the expected rate of inflation in the ensuing 12-month period.

The wage formula is certainly the most difficult and the least exportable component of our indexation system.

It certainly was fundamental to permit Brazil in the last four years to reconcile declining inflation with high growth. It had the advantage of eliminating the bitter competitiveness of wage disputes and avoiding the "wage-push" as an autonomous factor of inflation. It also divorced wage readjustments from the coercive power of politically prestigious labour unions, which otherwise might get more than their fair share. Despite that, or perhaps because of that, its implantation proved difficult and is likely to be even less palatable in other countries. Fair and rational as it is, the wage formula does not make the individual worker psychologically happy because he is, as everybody else, subject to the money illusion: large nominal wages, even though rapidly eroded by inflation, are psychologically more exciting than moderate, though more sustainable, wage boosts. From the viewpoint of the trade union leaders, the objections stem from the "power play": they derive their political power from the conflictive process and bargaining victories rather than from other paternalistic concessions or statistically determined wage upgrading. It must be noted however that the wage policy is only one of the components of our labour incomes policy. Great emphasis has been given to non-wage benefits such as fiscally financed housing and sanitation works which further employment; and to educational programmes which upgrade the human capital. There are also non-contributory funds financed by employers, which can be drawn by the workers only in special circumstances, but which represent employees' assets, protected by indexation and available as capital for housing programmes and industrial expansion.

(c) *Tax reform.* The tax system was converted to a real base, which in turn compelled enterprises to adopt real accounting methods; taxes, profits and depreciation allowances are computed on capital assets revalued each according to official indices of monetary correction. The same principle applies to the tax exemption threshold of low-income groups. The indexation of fiscal debt rendered tax dodging dangerous and payment delays unattractive.

(d) *The mini-devaluation system (the "crawling peg").* Parallel to the internal monetary correction there is a periodical devaluation of exchange rates, at uncertain intervals

and in mini-steps, so as to avoid speculation in foreign currency. The rate of devaluation is based on the rise of the internal wholesale price level, after deduction of a certain percentage representing an estimated average of the rate of inflation in our main trading partners: the steps are always kept below the current market interest rate, so as to discourage borrowing for speculation in foreign currency; and the periodicity is variable depending largely on the export behaviour and reserve position.

(e) *The saving-bias.* Both for anti-inflationary and developmental purposes, the system is biased in the direction of stimulating savings. Thus sight deposits and short-term financed papers are not indexed, while savings benefit from adjustment at intervals shorter than wages.

What are now the results of the Brazilian experiment? On the face of it, quite impressive. The rate of inflation abated gradually from 100% in early 1964 to around 40% in 1965-66, hovered about the 20 to 25% level from 1967 to 1969, and fell within the range of 15 to 20% in 1972 and 1973. There was the recurrence of a severe inflationary bout in the first half of 1974, as a result of both the inflation of import costs, including oil, and the liberation of certain prices repressed during 1973, but in the last few months inflationary pressures abated substantially. The real success however, lies not so much in the deceleration of inflation — for it remains at levels still considered unacceptable in Western societies—but in reconciling it with a very high rate of growth — over 10.3% in real terms for the last five years, and a hefty 11.4% in 1973. The *per capita* income in the last five years increased by some 40% in real terms. Exports quadrupled in the period 1964-73, rising from a level of about \$1.5 millions to \$6 billions, and in 1974 are likely to reach \$7.5 billions. Foreign exchange reserves, which were negative, reached \$6.4 billions by the end of 1973 and although declining somewhat under the impact of the oil crisis are still almost \$5.5 billions. The investment rates increased from some 14% as a percentage of GNP to some 22%, of which 20% was locally financed and 2% through the inflow of capital. Budget deficits, which in 1963 were about 5% of GNP, declined to negligible proportions in 1972-73 and were replaced, so far this year, by a budget

surplus. On several different tests — deceleration of inflation, budgetary discipline, acceleration of real growth, export expansion and reserve accumulation—the economic performance was quite satisfactory.

The remaining questions are then to what extent the Brazilian experiment is exportable and what has been the role of indexation in the economic performance.

The conditions in Brazil which made generalised indexation both possible and desirable were: (a) Chronic inflation, which created deeply ingrained expectations that prices would continue to rise; indexation was a way to discipline those expectations and avoid disorderly impact on different sectors of the economy. (b) The political viability of introducing some shock absorbers that prevented inflation from becoming explosive. Those shock absorbers were (i) the *wage formula*, which prevented an autonomous wage cost push; (ii) the *expenditure constraint*, implemented through a constitutional provision, which forbade Congress from increasing budget expenditures, thus permitting the achievement of a balanced budget; the establishment of minimum periods for adjustment of wages, rentals and other income items, so as to avoid excessive multiplicity and frequency of shocks.

Whether other countries can meet these preconditions, it is not for me to say. But to judge from the resistance of inflationary pressures in Western Europe and Japan to conventional treatment, and considering the danger of lapse into a frustrating alternation of restrictive and permissive policies, it is high time that the search of the elusive goal of eradication of inflation be tempered with a humble search of techniques for minimising its negative effects on savings, investment and income distribution.

But no more should be claimed for indexation than it can deliver. It is certainly not a cure for inflation; at best it can facilitate its control; at worst it can prevent it from causing major distortions. Basically the fight against inflation presupposes a skilful orchestration of monetary and fiscal policies to regulate demand, and incomes policy to minimise autonomous cost impulses and equitably apportion restraints as between wages, profits and prices.

If indexation does not cure inflation, it does not cause it either; just as the thermometer that registers the fever does not play a causal role in it. By institutionalising protection against inflation it may in fact discourage claims for excessive wages and price increases in anticipation of inflation.

Indexation, again, is no formula for economic growth; the Brazilian development boom has required several co-ordinated pieces of policy to increase savings, rationalise management, render the economy more extroverted and competitive through the promotion of exports and the absorption of foreign capital and technology. But indexation can help in preventing bottlenecks, either in the financial sphere by preserving the supply of savings, or in physical output by preserving the capability of the public sector to invest in basic infra-structural services essential for overall economic expansion.

Certainly, price stability is still better than indexation, for the latter involves both technical complexities and social costs. But if price stability proves, as it has been the case in the recent experience of Western Europe and Japan, an almost unreachable goal, indexation may be helpful in avoiding a number of unpleasant outcomes:

“Stop-Go” policies that neither cure inflation nor contribute to minimise its distortions; and/or price stability through shock-treatment, at the price of stagnation and with the risk of reversal, because of the political backlash of unemployment.

Any of those denouements would be melancholy indeed for the anti-inflationary travail of our modern societies. Indexation need not infirm the ideological fervour required to fight inflation, while it keeps free the option of cohabitation, if the battle proves long and uncertain and the political will may be subject to dismay.

*The views expressed in this booklet are not necessarily the views of the Forum of Free Enterprise.*

"People must come to accept private enterprise not as a necessary evil, but as an affirmative good".

—Eugene Black

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