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# THE BRAZILIAN MODEL OF DEVELOPMENT

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During the past five years the Brazilian gross national product has been growing in real terms at rates which can be considered exceptional, whether these are measured by historical comparisons or by international standards: 9.3% in 1968; 9% in 1969; 9.5% in 1970; 11.3% in 1971 and 10.4% in 1972.

This growth, however, does not appear to be creating tensions which will impair its continuity in the future. In fact, the rate of inflation in the country -- apart from having its effects neutralized to a great extent by the employment of monetary correction and flexible exchange parities -- has been gradually dropping; and our balance of payments has been continuously positive over this period resulting in accumulated foreign exchange reserves which today amount to over four billion dollars.

These figures have led a number of international commentators to refer to the "Brazilian miracle". Such an expression, however, is obviously inappropriate since, as our Minister of Finance, Delfim Neto has said, a miracle is an effect with no apparent cause, whereas our recent growth is anything but the result of sudden spontaneity. In fact, the development of Brazil in recent years is based on the application of an economic model, soundly structured in theory and accompanied by a healthy dose of pragmatism, the characteristics of which deserve some analysis.

It should be noted from the outset that for more than forty years Brazil has been distinguished itself on the world scene as a country of rapid economic growth.

In the decade of the thirties the G.N.P. grew in real terms at an average rate of around 4.6% per annum -- an extremely favourable rate considering it was a period of world recession. During the Second World War and in the fifteen years following it, the growth rate accelerated considerably, attaining an annual average of 5.1% between 1941 and 1947, 6.4% between 1948 and 1956 and 8.3% between 1957 and 1961. Despite a very rapid increase in population by a 2.4% annual average during the 1940's and by a 3% average during the 1950's, the income per capita would seem to have increased faster in Brazil than in the majority of western nations. Thus the historical lag in Brazilian economic development relative to that of other countries probably stems from the 19th and early part of the 20th Centuries but, at all events, this lag does not seem to have been aggravated during the past forty years.



Between 1930 and 1960 the basic model then favoured was to substitute imports by developing industry to manufacture similar products, and these were then protected by high customs tariffs and tough exchange controls. In the latter years of the 1950's this model was given particular credence on the explicit grounds that development depends upon industrialization but, over the major part of the period, the philosophy of import-substitution was adopted simply as a pragmatic reaction to the chronic difficulties in the balance of payments between Brazil and the rest of the world.

Undoubtedly, during those thirty years and particularly during the 1950's, the Brazilian economic structure underwent a tremendous change, when the country abandoned its role as a purely primary producer and became an industrialized nation. In spite of excellent overall results, however, certain economic distortions started to appear towards the end of the 50's, and these tended to make continued growth increasingly difficult. The rate of inflation was violently accelerated, reaching an annual figure of about 40% at the end of the period and undermining the economy with all the problems classically associated with continuous price rises: a disordered salary structure, almost impossible financial forecasting, an atrophied capital market, illusions of wealth, and disinterest in investing in basic services. The country's balance of payments was constantly in deficit, mainly on account of the rising inflation, with an accumulation of short term debt and even, on occasion, some delays in commercial payments. The country's industry, grown careless of the competitiveness of international indices and of rising internal costs, began to experience some difficulties in expanding its markets; while at the same time, the lack of a capital market capable of providing it with necessary support in terms of medium and long-term financing and the providing of consumer credit, was more and more keenly felt. Many companies, the profits of which consisted mainly of inflationary illusion, were confronted by increasing difficulties over their capital structure. Thus by the end of the decade it became obvious that growth must be temporarily halted while some retrenchment took place.

The initial years of the 1960's, with the whimsical Quadros government giving place to the administrative chaos of João Goulart, brought on a state of total recession.

Growth in real terms fell from 10.3% in 1961 to 5.3% in 1962 and to 1.5% in 1963. Complete disarray in the fiscal and monetary fields coupled with chaotic salary levels, raised the inflation rate to 80% in 1963; and judging from all signs during the first six months of 1964, there was quite a threat that it would have passed the 100% mark during the course of that year. The balance of payments entered into a state of virtual collapse, with consequent large accumulations of short-term debt, delays in commercial payments and disincentives for exports and foreign capital investments. In the investment field, in fact, both Brazilian nationals as well as foreigners retreated in panic in face of continuous threats of state-ownership and confiscation. It was against this background of economic and social chaos that the Revolution of March 1964 took place; and this, as we have seen, was destined to create a new political and economic philosophy, the results of which, in terms of growth, really started to become apparent from 1968 onwards.

Immediately after the Revolution, the Castelo Branco Government launched upon a heroic plan to restore the country's economy, setting out to combat inflation, to restore equilibrium to the balance of payments and to create a basis for long-term development. The situation which the Government inherited was about as negative as it could possibly be; involving a rate of inflation which, besides being extremely violent, showed alarming signs that it had been artificially held down by price controls in various sectors; a balance of payments chronically in deficit with overvalued exchange rates and a break-down in foreign credit; an obsolet taxation structure which created in-built budgetary deficits and by which taxes were unfairly levied on illusory profits generated by inflation. This, in turn, gave rise to widespread and rampant tax evasion. Salary readjustment had become wildly out of control and has created a serious cost inflation, at the same time destroying the country's savings capacity. The financial market, demoralized and impotent, had become virtually limited to commercial credits at 90 days and a few scattered loans to Government entities at subsidized rates. The difficulties were such that the Castelo Branco Government faced the thankless task of having to plant much in order to harvest little. The fight against inflation had naturally to be given first priority, but first substantial barriers had to be overcome since it was necessary to adjust to realistic levels the prices which had been artificially held down in the past and, at the same time, to violently devalue the currency so as to bring the balance of payments back into line. Economic growth was, obviously, the prime target but it was first necessary



to prepare the way for this by far-reaching legislative and fiscal reforms and these could not be established without considerable labor pains.

Under such circumstances the Government had to impose quite a severe monetary and fiscal policy which was obviously incompatible with high rates of growth in the immediate future. In fact, between 1964 and 1967, the growth rate in real terms was limited to an average of 3.7% per annum, and such a rate can hardly be considered brilliant in a country where the population is growing annually at 2.9%.

Historically, however, the important thing was that the Castelo Branco Government accepted the hard but necessary task of building the foundation for what has since proved to be a period of strong and healthy growth. The great conquests of the years between 1964 and 1967 were undoubtedly the substantial decline in the rate of inflation, the restoration of foreign credit and the balance of payments, and the setting up of broad institutional reforms to encourage development. Amongst these results the following points are worth specific mention:

- A. the reduction of inflation from a rate of between 80 and 90% during 1963 and 1964 down to about 25% per annum in 1967;
- B. the recovery of the government's financial structure, with the reduction in the federal deficit from 4.2% of the G.N.P. in 1963 down to 1.1% in 1966;
- C. an improvement in the methods of financing the federal government deficit (in 1963, 85.7% of this was financed by the monetary authorities but by 1967 the percentage had fallen to around 13.6%);
- D. the reversal of the deficitary tendencies in the country's balance of payments, achieved by a realistic exchange policy, as well as by the granting of incentives to exporters, and the wooing back of foreign capital. Thus, whereas in 1963 the country was some 300 million dollars in arrears with its commercial payments, by the end of 1966 the foreign exchange reserves had risen to over 400 million dollars;
- E. the neutralization of most inflationary distortions by the application of monetary correction to public and private debt service, as well as to rents, public services, taxes, medium and long-term loans, mortgages, etc.;

- F. the improvement of the taxation system with a broadening of incentives, with the elimination of taxes which had ceased to be effective (such as the stamp tax), with the gradual removal of taxes on illusory profits, with the application of monetary correction on delayed tax payments, and with the substitution of the previously-existing sales and consignment tax, which had been levied on a declining scale, by a new tax on the circulation of goods, levied on added values;
- G. the substitution of the old system for worker's indemnities and stability by the creation of a new Social Security Guarantee Fund which obtains its resources from the employer contribution of an additional 8% on salaries paid and which is administered by the National Housing Bank;
- H. the development of a capital market by the creation of investment banks, by the broadening of hire-purchase and installment credit, by the setting up of FINAME in order to provide medium-term financing for nationally-produced machinery, and by the creation of certain incentives in the stock market;
- I. the establishment of a publicly-backed mortgage banking system, in which both deposits and loans are subject to monetary correction, with the added support of the Social Security Guarantee Fund;
- J. the encouragement of a philosophy where cost is made relative to productivity in order to make the country increasingly competitive internationally; and
- K. the creation of new disciplines for salary adjustments.

Without this initial period of sacrifice during which, as I have said, the Government was forced to plant much and harvest little, the accelerated growth of recent years would have been virtually impossible. It is certainly difficult to conceive that Brazil could have embarked upon a period of such rapid increasing prosperity if it had had to go on coping with the situation as it existed in 1964. It is therefore obvious that the sacrifices which were undergone during the Castelo Branco Administration were in some part responsible for the so-called Brazilian miracle which has taken place in more recent years. Nevertheless, however necessary such sacrifices were, they were not by themselves sufficient. Knowing how to reap is as much an art as knowing how to sow, the people responsible for current economic policy have shown great mastery of techniques by which



real growth can be maintained without aggravating inflationary tensions and upsetting the balance of payments. I think it will be of interest if I mention some of the principal characteristics of the policy which has been adopted in Brazil over the last few years. In general terms, this policy is based on orthodox recognition that any development process must stem from three factors, which are savings, confidence and marketing. The prime requisite for a rapid and durable rate of growth is the ability to maintain a high degree of savings which can be used to finance the necessary investments. The second is the creation and maintenance of an economically-rational climate which inspires confidence in producers and investors alike. And the third is the development of an expanding market which encourages new investments and a continuous increase in production.

There are very little statistics available to provide a reliable guide to Brazil's comparative savings indices. The only information we have is that published by the Getúlio Vargas Foundation up till 1969.

According to this, during 1963 and 1969 the gross investment rate -- i.e., the relationship between the gross amount of new capital formed and the gross national product would have attained only 17%, a level substantially below that attained at the beginning of the 1960's. If these official statistics are correct, then we really do have a miracle to explain -- how it has been possible to grow so much by saving so little. It is well known, for example, that Japan, in order to maintain real rates of growth similar to those which have existed in Brazil during recent years, has had to put aside more than 35% of the G.N.P. in the form of savings. It is true, of course, that Brazil, with its vast natural resources, may well expect to grow as much as Japan, without necessarily the same degree of savings effort. It is true, furthermore, that part of the growth between 1968 and 1969 was due to the absorption of what, prior to that, had been spare industrial capacity. Nevertheless, the growth rate has remained very stable without any manifestly violent increase in savings. And certainly, to grow by 10% per annum while only investing a mere 17% of the gross product, would seem far from easy if one is to judge by world standards. Apart from this, it seems strange that investments should have been lower during 1968 and 1969 than they were at the beginning of the decade, notwithstanding the major effort to save in the public sector, as well as greatly-increased absorption of foreign capital and the improvement in real profitability by corporations, and the incentives for personal savings created by the development in the capital market. There remains, of course, the possibility that the statistics are wrong. The Public Capital Account is not calculated in accordance with



any highly precise formula, but by methods which are somewhat vague and precarious. The index for gross creation of capital was formulated quite carefully for the year 1959, based upon the Census figures of 1960, and from then on it was extrapolated by an index which combines the importation of capital goods with the approximate consumption of some of the basic primary products. If we assume that the national production of machinery must be constantly enhancing the value of raw materials, it is reasonable to assume that the real rate of investment cannot be correctly calculated on this basis. Some studies made by the Ministry of Finance suggest that the gross formation of capital must be somewhere around 21 or 22 percent of the G.N.P. Although they may lack sufficient documentation to be necessarily very convincing, these calculations seem to be no less reliable than the published official figures.

It is easier to sense than to measure in any material way the climate of confidence with which producers and investors in Brazil are presently imbued. But, even though this confidence may not be measurable mathematically, there are some relevant statistical indicators which exist, such as the net inflow of free foreign capital which reached more than 3.8 billion dollars during 1972. In part, this climate of confidence is the result of the startling growth in the G.N.P., the highly positive figures and the neutralization of inflationary distortions by the employment of monetary correction and flexible exchange parities. In part as well, however, it is also the result of a stable political regime which set a target for development as a main priority of economic policy, and which has engineered a workable modus vivendi between private Brazilian capital, state owned institutions and foreign corporations.

Speaking generally, countries which are still in a state of development must choose between two alternatives as far as economic philosophy is concerned: that of productivity and that of redistribution. The first establishes as a basic priority the accelerated growth of the G.N.P., accepting as a short-term liability the corollary of an appreciable imbalance between individual rates of income. The second presumes the immediate improvement of income-distribution and welfare levels, even though this usually results in a reduction of savings and consequently of future possibilities for real growth. Obviously, no country today can accept either of these two philosophies in undiluted form; and, indeed, certain politicians still seem to feel that they can promise a marriage of the two well beyond the point of practicality. On the other hand, broad economic policy must clearly lean either to one side or the other; and in Latin America today one may say that Brazil is the country which most favours productivism while Chile, leaving Cuba aside, most represents the philosophy in favour of redistribution.

The fact that "distributionism" weaves a degree of political magic is proved by certain electoral results, such as the victories of Allende in Chile and Campora in Argentina. Recent history also shows that the majority of distributive experiments in non-communist countries gives rise to strong cost inflation, chronic balance-of-payments deficits, a weakening investment pattern and, after an initial period of market euphoria, a general decline in economic growth.

The possibility of distributionism as a serious matter for debate arose at the beginning of 1972 when certain analyses, based upon the results of the latest Census, showed that wealth-concentration had increased between 1960 and 1970. Brazilian economic policy was criticized internationally for its apparent incapacity to benefit the poorer levels of the population. The arguments put forward turned out to be somewhat fragile in scientific terms however, since there was little sense in comparing statistics from 1960 with others from 1970 and using these to criticize a developmental experiment which only had its true beginning in 1968. The important thing, though, is that, following these debates, the Government came down firmly on the side of productive philosophy and refused to sanction measures designed to promote more liberal distribution such as a prodigal salary structure or anything else which might compromise future economic growth.

The problem of wealth-distribution is obviously one which is of great concern to the Government, but the steps which are being taken to resolve it represent a planned effort on a medium to long-term basis which will interfere as little as possible with the growth in savings and development generally.

Fundamentally, these measures comprise the broadening of the free school system (given that the greatest distortions in income usually stem from similar disparities in levels of education), and the creation of individual sources of income, not immediately available for expenditure, but tied into forced savings which help to promote the accumulation of capital.

The Social Security Guarantee Fund and the Plan for Social Integration are two examples of this system at work. Undoubtedly, the Government's attitude toward the debate between the productive and distributive philosophies seems to have resulted in consolidating confidence in the future of Brazilian development.



Instead of ideological debate, Brazil seems to have chosen a course of pragmatic cooperation. Except in rare instances, such as the field of petroleum exploration, the incentives which are given to state owned industries do not differ at all from those given to national companies in the private sector. (Certain natural privileges do, of course, exist, such as Government deposits in the official banks.) There are also sectors, however, where the need to employ modern technology calls for large amounts of capital and it is not always easy to raise such funds from private sources.

In cases like this, which include public utilities and certain parts of the steel and mining industries, the Government will invest directly; and in recent years the standard of management in state-owned enterprises has been just as good as that of the better-run companies in the private sector. Foreign capital has been accepted unreservedly in the industrial field where it can and does make much contribution to the technological progress of the country; and in other areas on the basis of substantial minority participation such as investment banking. Only in the exploration and refining of petroleum products is foreign capital excluded by law, and from further participation in commercial banking by informal consensus. Even so, the positions acquired in the past by foreign banks before this unwritten rule was established, have been fully respected. Lastly, there also exist a number of associations between foreign and Brazilian companies in both public and private sectors -- particularly designed to broaden the scope of the petro-chemical, steel and mining industries. These associations are the best possible evidence of the excellent degree of cooperation which exists between public, private and foreign capital. It is perhaps worth mentioning, incidentally, that an important aspect of modern Brazilian development resides in the fact that civil servants are not looked upon as potential enemies. The frequent interchange of positions which take public officials into the employ of private industry and vice-versa, is one of the principal reasons behind this positive dialogue.

The third classical support of development policy lies in the field of market activation. In this respect the economists of the structuralist school, who defend the distribution philosophy, formed a theory in about 1967 which foresaw stagnation in Brazilian growth as a direct result of the relative narrowing of markets in turn provoked by violent disparities in income levels. The remedies which were recommended at the time were somewhat similar to the measures which have been adopted in Chile since 1971. In fact, the explosive growth of the Brazilian economy since 1968 has left the structuralists with little further arguments and many of them have felt obliged to retract the opinions they formerly held. The basic error which they committed was to forget that it is possible to activate markets in many ways other than by simply distributing income, such as, by monetary policy, by public investment and by export incentives. They also forgot that the crucial task is to reconcile market dynamics with a continued and satisfactory level...

of savings without which no growth pattern can possibly be maintained in the medium to long term. The solution adopted to ensure market expansion was, in fact, much more imaginative, being based upon a high degree of public investment, as well as fairly easy credit in the private sector, the expansion of credit without over-inflating the means of payment, and by giving substantial incentive to exporters.

Public investments, that is, those made by the Government and the state-controlled corporations, have represented some 11 or 12 percent of the G.N.P. in recent years.

These not only have the effect of insuring the necessary expansion of the country's infra-structure, but they have also played a definite and important role in expanding the internal market.

Parallel with the high level of public investment, monetary policy has been conducted on the principle that private industry should not be adversely affected by liquidity crises. Because of this, the expansion of bank loans into the private sector has taken place at a pace substantially in excess of the global increase in the means of payment. Thus, between December 1966 and December 1971, the relationship of the loans outstanding from the Banco do Brasil and other commercial banks vis-à-vis total means of payment rose from 70.5% to 108.3%. As we shall see later on, such an easy credit policy places certain restrictions on the pace at which inflation can be reduced, but it is nevertheless undeniable that it has been a very important influence on sustaining the high rates of growth since 1968.

Apart from the credit policy in the commercial banking sector, one must also take into account the operations of the other forms of financial institution which are not instrumental in increasing the means of payment. In this sense, the legislative reforms which were set up during the Castelo Branco Government really started to make themselves felt from 1968 onwards.

A fourth aid to market growth can be found in the incentives given to exports in general and to that of manufactured products in particular. Thanks to these incentives, Brazilian exports grew explosively from 1.4 billion dollars in 1963 to 3.9 billion dollars in 1964.

The encouragement of exports however, has perhaps an even more important function than simply increasing market activity, namely, to resolve the problems of the country's balance of trade, about which I shall speak further.



This three-legged base of Savings, Confidence and Marketing demonstrates the orthodox elements in the present Brazilian plan for development growth, but besides these there are also certain other special factors and characteristics which deserve to be mentioned. These are:

- A. an ability to live peaceably with inflation as a result of the applied principles of monetary correction and flexible exchange parities,
- B. a gradualist policy for bringing down the annual rate of inflation, and
- C. an unchauvinistic attitude, evidenced by the ready acceptance and welcoming of foreign investment as well as by great emphasis being laid on exports.

Let us examine for a moment the ability to live with inflation. Up to 1964 Brazilian inflation generated all the classical distortions cited by the text books, as resulting from chronic price rises, such as:

- A. an unstable and disorderly wage structure,
- B. disinterest in new investment in the area of public service utilities, since such investments must be remunerated on the basis of historic installation costs,
- C. dwindling exports and rising deficits in the balance of payments as a result of systematic disparities in the relationship between exchange rates and internal price-structures,
- D. public apathy towards fixed interest securities in general and especially towards those issued by the Government on account of their yields being increasingly and manifestly inadequate when measured against the currency's loss of purchasing power,
- E. a drop in the value of real estate since investments for rentals become unattractive when rents are subject to sudden controls,
- F. the drying up of longer term credit generally, and of mortgage funds in particular because of the increasing irreality of interest rates,
- G. illusory corporate profits owing to depreciation being calculated on the basis of historical costs and the absorption of nominal gains by the constant need to increase working capital values,

- H. an unjust tax system which imposes levies upon illusory profits as though they represented a real return on capital, and
- I. the indirect rewarding of tardy taxpayers who make delayed payments in devalued currency.

Following the revolution in March 1964, the Government decided to combat inflation by three basic methods: wage controls, monetary correction and flexible exchange parities.

The wage-control formula is used today for the purpose of recalculating minimum salary levels, for fixing the annual wages of civil servants, and also all other wages which are subject to collective negotiation. This formula is based upon the following principles:

- A. All readjustments should remain constant for an ensuing period of twelve months.
- B. During this period, the average purchasing power of the new income level should be equal to the purchasing power of similar income levels during the preceding two years, plus a percentage relative to the increase in national productivity over the same time-scale.

So that the formula may be properly and easily applied, the Government publishes a series of co-efficients which reflect the cost of living indices during the twenty-four months prior to the readjustment, as well as the rate of inflation which is forecast for the following year.

The importance of this formula in the present Brazilian development plan should be especially emphasized. In the first place, it has served to simplify and pacify collective wage-claim negotiations; these are no longer resolved by rounds of strikes and other forms of collective pressure, but simply by rapid mathematical calculations. Secondly, it acts as an automatic brake upon cost push inflation -- a problem which today is assuming dramatic proportions throughout the world. When it is possible to foresee a sudden drop in the rate of inflation, however, the formula produces wage-adjustments which are less than proportionate to the rise in costs, since the basis for calculation is the average and not the peak level of purchasing power. Thirdly, the formula makes wage-adjustments more or less uniform across the board, thus preventing the distortions created by very powerful unions who might negotiate better terms than other groups with less cohesive bargaining power.



The application of the formula depends upon certain statistical data -- the indices relating to the cost of living during the previous twenty-four months and the increase of productivity percentually during the same period -- but it also depends upon a certain unknown quantity which has to be forecast, that is the rate by which the cost of living will rise during the twelve months in which the new salary level will be in force. Between 1965 and 1967 the figures which were forecast for future inflationary trends turned out to be over-optimistic, with the result that some groups of wage earners undoubtedly lost ground so far as purchasing power is concerned. This, obviously, caused the Government considerable unpopularity, despite the fact that a programme which aims not only at reducing inflation, but also at increasing the rate of real savings, must inevitably involve society in some immediate cost. In 1968 the wages policy was reviewed and a mechanism was introduced by which any errors in the forecasting of future inflation would eventually be compensated for. Since that date, also, the forecast figures have been much more in line with reality and as a result the purchasing power of most wage-earning groups has gradually risen in real terms over recent years.

I have mentioned that inflation had caused problems connected with public utility investment, fixed interest securities, rents, mortgages, longer-term lending, corporate balance sheets and the taxation system. The method used to reconcile these problems with continuing inflation, albeit at increasingly lower levels, has been the application of monetary correction.

The income for public utility services has been brought into line with true installation costs. The interest rate on public and private securities is kept whole by monetary correction, since, apart from a pre-established "coupon-yield", the amount of principal is also corrected in accordance with the general price index over the period of the investment. By the same token, there has been a resurgence of interest in purchasing real estate for renting purposes, and the availability of mortgage financing has become far greater than was ever expected on account of the National Housing Bank schemes. Companies can now calculate the depreciation of their assets based on constantly readjusted figures, and true profit may be separated from the amounts necessary to restore the value of working capital at the end of each accounting period. Taxes are now levied almost only on gross real returns and not on illusory profits. And delay in the payment of taxes has ceased to be a profitable business, since today payments in arrears are not only subject to monetary correction, but also to fines.

In the field of foreign exchange the Government has made great efforts, ever since 1964, to maintain currency parities at realistic levels and to avoid the old vice of keeping the cruzeiro somewhat over-valued in order to hide the symptoms of internal inflation. The formula adopted to achieve this between 1964 and 1968, although a perfectly orthodox one in countries with a history of relative monetary stability, did not prove to be very suitable in a country whose economy was still beset by strong inflationary pressures.

This formula was designed to allow for successive currency devaluations only at prolonged intervals of between ten and fourteenth months. This system subjected the real income of exporters to serious distortions; and their business, although very profitable immediately after each devaluation, became less and less attractive as time went by on account of rising internal costs. Such a situation was obviously prejudicial to the continuity of marketing-effort which is so vital to any export-sales programme. Also, the system, as it was set up, gave active encouragement to exchange speculation. Eight to ten months after each devaluation, the public would begin buying increasing amounts of foreign currency, which could then be freely purchased by private individuals, in the not-unreasonable expectation that a new devaluation would take place in the fairly near future. On the eve of long holiday weekends which, for administrative convenience, were usually chosen as the dates for cruzeiro devaluations, long queues of buyers formed up outside the foreign exchange dealers. The relatively small-scale local speculation, which took place in this way, was nothing, of course, compared to the movements of international hot money. Each successive devaluation brought large amounts of foreign funds washing into the economy, and these, in their turn, caused expansion of the internal means of payment, artificial rises in exchange reserves, a falling off in interest rates, and easy liquidity conditions.

Six or eight months later, however, the same funds would start to flow out again, thus creating obverse distortions such as liquidity crises and sharp rises in interest rates.

At this time, as a matter of fact, many foreign corporations were able to obtain very low average money costs by borrowing abroad for six to eight months after each devaluation date and then borrowing in cruzeiros in order to cover their exchange exposure.



Beginning in August 1968, the Government adopted a much more ingenious strategy -- a system of mini-devaluations which has come to be known in Brazil, somewhat inappropriately, as the "flexible exchange-rate". The currency continues to be devalued by degrees, but in much smaller percentages and at shorter intervals than was previously the case. Up to now, since the new policy came into effect, these periods have varied between ten days to two months.

The new system has had excellent repercussions in terms of neutralizing the psychological impact of currency devaluations, and these have now ceased to be a national trauma. Furthermore, it has also provided a means of stable income for exporters, has virtually wiped out exchange speculation and has stopped the violent ebb and flow of international hot money. In actual fact, I believe that the excellent controls which the Monetary Authorities have been able to establish over the internal means of payment, would have been made much more difficult, if not impossible, without the employment of the mini-devaluation system. In effect, the principle of monetary correction has been ably and ingeniously adapted to the exchange market, but there is one important difference, which is that the amounts of the adjustments and the dates on which they are made cannot be foreseen.

The public is aware, however, that these will not be sufficiently great as to make any form of speculation worth-while.

Thanks to monetary correction, the wages policy and this flexible exchange system, Brazilian inflation seems to have had its worst effects practically neutralized. Since it is impossible to divide up a cake into parts which add up to more than the whole, it is inevitable that the various economic sectors will lose something in real terms every time a readjustment takes place, but there no longer exists the terrible spectre of chronic inflation which results in a continuous loss in substance over the medium to long-term. Thus, according to quite a respected school of economic thought the rate of 15% inflation, as currently exists in Brazil, actually brings far less noxious results than rates of between 4% and 5% in countries which are not yet prepared to live with it.

Making peace with inflation in this way, however, is not without its price in the form of a high degree of inflationary feedback. The wages policy, monetary correction and flexible exchange system cause prices to rise today because they went up yesterday, or this year because they rose last year. To suddenly stamp out inflation completely from the present Brazilian scene would seem to be impractical and perhaps impossible, since salaries, rents and public tariffs, etc. are continually being adjusted to new levels.

In actual fact, the practicability of these mechanisms is dependent upon three factors which exist in Brazil but which may not necessarily be able to be extrapolated in terms of other countries' economics. These are:

- A. A history of chronic inflation which has created a general expectancy that prices will continue to rise in the future,
- B. A national currency without pretensions of becoming part of the international reserve structure, and
- C. An acceptance of the philosophy that the best way to combat inflation is on a gradual basis rather than by shock treatment.

The second peculiarity about the Brazilian model is the method adopted to fight inflation. To reduce the rhythm of increase in prices under present circumstances is a goal which is made more difficult by three main factors:

- A. The very mechanisms which have been used to neutralize the harmful effects of continuous price-rises, themselves tend to generate quite a lot of inflationary feedback.
- B. Monetary policy has been conditioned to allow for corporations never suffering from a sudden credit squeeze so as not to prejudice market growth. Such a policy, of course, precludes the normal methods used to combat inflation, whereby the means of payment within the economy is stringently controlled. And additional complications are now being met because the relatively high level of foreign exchange reserves is creating strong expansionary pressures on the internal monetary system. And,
- C. The financial institutions, because of the bad habits created during the years of galloping inflation, when they became accustomed to working with high administrative and operational costs, now find it difficult to lower interest rates. Because of this, if inflation were suddenly and drastically reduced, these interest rates would become quite unsupportable to borrowers. It has in fact been said that, if inflation suddenly were to disappear in Brazil, either the Banks or their clients would have to go bankrupt. Despite these difficulties, however, the Government has sought constantly to reduce the level of inflation although this has had to be done by degrees. Between 1969 and 1971 prices rose at a fairly constant annual rate of about 20% per annum. In 1972, however, the main inflationary indicators fell considerably and the general price index, calculated as the basis of internal supply, was held down to a



rise of 15.7%; wholesale prices to 15.9% and the cost of living in the State of Guanabara to 14%. Taking into account, therefore, all the problems which I have mentioned, we see that inflation is being fought by a combination of the following measures:

- a. containment of Government deficits,
- b. the reabsorption of temporarily excess funds into Treasury Bills and other Government securities through open market operations,
- c. incentives to farmers and cattle-raisers, and
- d. broad and effective controls of wages, prices and to some extent, of interest rates.

The progressive strengthening of the public sector's financial structure has been one of the most encouraging aspects of the economy since 1964, and federal deficits have been gradually reduced both in absolute terms and as a percentage of the Gross National Product. In 1972 the deficit amounted to 516.1 million cruzeiros which represents only point two percent of the G.N.P. In the past the deficits in the public sector were undoubtedly one of the principal causes for continual expansion in the means of payment. Today, however, thanks largely to the growing Bill and Bond market, the Federal Government now acts as an agent in contracting the money supply, so that distortions in this area are decreasing.

In 1972, for instance, the increase in total sales of Treasury Bills was over eight billion cruzeiros. Discounting the Federal deficit, operations by the Central Bank and the Treasury permitted nearly seven point eight billion cruzeiros to be withdrawn from circulation. If one appreciates that the easy credit conditions in the private sector and the accumulation of foreign exchange reserves tend to create strong expansionary pressures on the means of payment, one comes to realize the importance of this reabsorption through the open market within the global framework of anti-inflationary policy.

The incentives which are being given to agricultural production in the form of subsidized credit, mechanization, use of fertilizers, etc., will create another important means towards lowering inflation. Agricultural costs weigh heavily in the Brazilian price indices and particularly in the cost of living index. In the short term, therefore, the drop in the inflation-rate seems always to depend on whether or not the harvests are good since these very largely affect the prices of meat and agricultural products for the following twelve months. Although results must always depend to a great

extent on weather conditions, one can see that a policy which persistently favours improvements in the productivity of primary products must also be an important influence on the effort to keep down price indices.

I have already mentioned the methods of controlling wage levels and their importance. In addition to these controls, a ceiling on interest rates charged by commercial banks and other financial institutions has now been imposed by the Monetary Council, and readjustment in the pricing of most industrial products is subject to authorization by the C.I.P. (Interministerial Pricing Commission).

The broadening of these controls within a capitalist economy has become the subject of a certain amount of ideological controversy. One knows that in the past, controls of a similar sort were responsible for producing considerable distortions in our economy, and the same has happened in many other countries where experiments like this have been tried.

From a pragmatic viewpoint, however, it would seem impossible to avoid price controls if one is trying to combat inflation and, if at the same time, monetary policy is geared to liberal credit conditions. The orthodox methods used to bring down inflation may dispense with the necessity for price controls, but they involve a monetary policy which is sufficiently severe to keep price levels in check simply by reducing demand.

The difficulty with the orthodox method, however, is that in the medium term it has a tendency to produce severe liquidity crises, since producers stop raising prices only after a period of decreasing sales. If a country fixes as one of its primary objectives a rapid growth in real productivity at short term, this orthodox formula must be rejected and the alternative of price controls is unavoidable. The relative success of the policy, however, depends largely upon the good sense of the people responsible for running the system. They must obviously be concerned with bringing down inflationary indicators as much as possible, but they must also take great care at the same time not to kill the goose which lays the golden eggs.. Notwithstanding these controls, however, profitability in most sectors of the Brazilian economy has been very satisfactory in recent years.

The third characteristic peculiar to the Brazilian model is its concern to become involved in foreign trade. Up to 1964, as I have said, Brazil maintained a very inward-looking development policy. There was little emphasis given to exports and great concentration on import-substitutes. Because of this, the imports coefficient -- that is the percentual relationship between imports of goods and services and the Gross National Product --



fell from an average of 22.4% between 1920 and 1929 to an average of 6.1% in the years between 1961 and 1967. The quantum index for imports grew quite slowly -- at 2.4% per annum on average between 1920 and 1947, and at only point three percent per annum between 1947 and 1967. Slower yet was the growth in the quantum for exports -- 1% per annum average between 1920 and 1947 and minus point three percent -- thus resulting in an absolute decline -- between 1947 and 1967.

In fact, the disparity in growth rates between imports and exports could only be sustained by increasing the amount of foreign debt and by an all-round improvement in trading relationships abroad.

From 1964 onwards, however, Brazil has come firmly to believe that it must turn outwards in its plan for development, and has placed special emphasis on the need to export. There are two fundamental reasons behind this philosophy. First, is the belief that it would be very difficult for the country to go on reducing its import-coefficient, and secondly, because the growth of sales abroad is vital to the continued ability to absorb foreign loans and investments, since these need to be serviced and, in the case of loans, eventually repaid.

It is obviously impossible to project with any assurance what will be the performance of our import-coefficient from now into the future. This will, of course, depend greatly on how our technology evolves, as well as our markets, and on what is eventually discovered in the way of natural resources. Everything seems to indicate, however, that the difficulties in further reducing the import-coefficient will become increasingly acute. Firstly because most of what could be done to substitute purchases from abroad has already been carried out. Secondly, because it is extremely difficult for any country to become self-sufficient in natural resources. Thirdly, because a good part of our imports consists of machinery and other capital goods which can only be manufactured economically on a world-market scale. (These imports let it be said in passing, represent very substantial figures when the G.N.P. and investments are increasing at such a rapid pace) Fourthly, because for most of our imported products there seems to be a demand which is greater than their immediate yield, so that the demand grows faster than the product. This being the case, a certain effort towards import substitution is still necessary simply to stop the import coefficient from increasing.

We must do our best from now onwards, therefore, to maintain an import-coefficient, involving both goods and services, of around ten percent

of our G.N.P. If this happens, the value of our imports should grow at approximately the same pace as the G.N.P. itself, when expressed in real terms. If one admits that the G.N.P. is growing at a rate of between eight and ten percent annually, and that world inflation is now of the order of four or five percent per annum, then our imports should increase in foreign currency terms by between twelve and fifteen and a half percent per annum, approximately. But this is to speak of the most optimistic hypothesis. It would be more prudent I think, to prepare ourselves for some increase in the import ratio as time goes on. That, in any case, seems to be the general tendency of world trade which is increasing at a rather faster pace than global production.

Continued growth in exports, on the other hand, is vital to Brazil so that the country can continue to import foreign capital. A country which is developing as rapidly as Brazil is at present, is naturally receptive to capital investment and, as such, will show a deficit on current account in its balance of payments.

That is implicit with the increase of foreign debt since this results in a growing burden of interest payments and profit remittances. If exports do not grow sufficiently, such charges will eventually become top-heavy in relation to foreign income and, under such circumstances, a country can only go on taking in foreign capital by simply snow-balling its debt position.

Since 1964 and particularly since 1968, the Government has laid increasing emphasis on export expansion especially as far as manufactured products are concerned. Apart from the effects of the flexible exchange system which I have already dealt with, exports are virtually exempt from all forms of indirect taxation. Corporate income-tax is not charged on profits resulting from export operations and the sales of manufactured products abroad are directly subsidized by a draw-bank credit on the pool of manufactured-products-tax (I.P.I.), at the rate at which the tax normally applies. In some cases this is also true of the tax on the Circulation of Goods (I.C.M.). These credits may be used against sales of similar goods in the internal market. There are a series of credit schemes at subsidized rates which are available from both official and private banks, and the Government is now planning to increase the aggressiveness of Brazilian marketing abroad by the formation of Trading Companies.



The results of this incentive policy have been really quite positive. Brazilian exports in F.O.B. values rose from just over one point four billion dollars in 1964 to nearly one point nine billion in 1968 and from there to four billion dollars in 1972.

Exports of manufactured products, which were virtually non-existent in 1964, rose to 204 million dollars in 1968 and since then have grown progressively until they reached well over a billion dollars in 1972.

In consequence of a substantial inflow of foreign capital, especially in the form of loans, Brazil's gross foreign debt position has been growing very fast -- from two point nine billion dollars in 1964 to three point nine billion in 1968 and up to just over ten billion dollars by the end of 1972. The growth of the foreign debt position over the last four years has somewhat alarmed certain analysts who may possibly be only superficially informed but the situation can be explained quite easily.

In the first place, quite a large part of the increased debt has been offset by the extremely rapid rise in the country's foreign-exchange reserves which went up from two hundred and forty four million dollars in 1964 to 257 million in 1968 and by the end of 1972 had reached three billion 953 million dollars. Thus the increase in the net foreign debt position, that is the total debt figure minus foreign-exchange reserves, was considerably less violent than the growth in the gross debt figure. From two point eight billion in 1964, it went to three point seven billion in 1968 and up to six point two billion in 1972. Furthermore, any explanation of net-foreign-debt in absolute terms does not make much sense -- the important point is its relationship to the country's export figures. This ratio which stood at 1.9 in 1964 and 1968 had fallen to 1.6 by the end of 1972.

Much more subtle is the problem of the deficit on current account. This went up far in excess of any historic precedent to one point three billion dollars in 1971 and to one point four billion in 1972, figures which represented 45% and 35% of exports in their respective years. A high deficit in current account is in some ways quite desirable since it shows that the country is reinforcing its savings capacity by the absorption of foreign capital. But it also means, of course, that in the future the country will have to bear an increased burden in terms of interest payments and profit remittances.

What is the technically acceptable relationship between the deficit in current account and the value of exports? The answer to this question depends very much on the rate of growth in the latter figure. One can reasonably say that if the deficit in current account represents "m" percent of exports and these are growing by "i" percent per annum, then the relationship between net-foreign-debt (including in this case direct investment) and exports will tend eventually to become "m" over "i". This formula permits us to distinguish what is viable and what is not in terms of foreign debt.

A relationship between current-account-deficit and exports of forty-five percent, with exports growing at a rate of only five percent per annum would appear totally unacceptable, since the net-foreign-debt would tend towards nine times the annual exports. If the average cost of borrowing were seven percent per annum, it would mean that sixty three percent of export income would eventually go to pay financial charges and, obviously long before this the international bankers would have cut off the credit supply. However, a ratio with "m" standing at 40% and exports increasing by seventeen percent annually would take the country to an external debt position of just over two and a quarter times annual exports could be considered quite a reasonable coefficient.

Thus the critical problem is not so much the present level of Brazilian foreign debt but rather the rate at which exports can grow in the future. It is important that this should remain relatively high for two reasons: firstly, so that the country can finance the growing demand for imported goods which in itself is a national corollary of the development process, and also so that the absorption of foreign capital may continue under technically healthy conditions. During the last few years the Government has been giving top priority to this problem with extremely positive results, and the continuation of this policy is absolutely necessary for Brazilian economic growth to be successfully maintained.

Those, then, are the principal aspects of the Brazilian model for economic development -- reasonably orthodox in its general approach, somewhat originally-heterodox in its methods used to fight inflation, and above all, highly pragmatic in its execution. It is important to point out that, parallel to the effort to maintain high rates of growth over the next few years, the country is also trying to sow seeds for longer term development by expanding its educational system in an unprecedented way.



Just to quote a few statistics, between 1964 and 1972, the amount of public funds applied in the education system rose from 2.2% to 3.9% of the G.N.P. School enrollments rose by forty percent in secondary schools and by three hundred and ninety percent at university level. In little more than two years of existence, MOBREAL has taught to read and write three and a half million adults, reducing national illiteracy from 33 percent to 26 percent.

How long Brazil will be able to keep up its current rate of growth is a question which obviously cannot be replied to unconditionally. Self-sustained growth is not a purely indigenous process but is something which depends upon economic policy. What seems to be important is that the present development plan is not apparently generating tensions which might prejudice its continuity. So long as the Government resists the temptation of premature over-distribution of wealth, maintains its pragmatic approach towards development policy, reducing inflation and encouraging the inflow of foreign capital, while at the same time giving continued incentives to exporters, one may, I believe, look very optimistically on the future of Brazilian economic growth.