In 1967 ORTN were issued, the first treasury bonds yielding a fixed real interest plus inflation correction (16). At the time, it was a real instrument of saving and intermediation, and it was, besides seigniorage on vernacular money, the tool for financing of the State's deficit out of private external indebtment. After 1974, the greed for dollars was such that the rate of interest on indexed treasury bonds was increased as an incentive for private agents to borrow on the external market. That was the beginning of a vicious circle.

The dollarization of the liabilities of private agents increased. The mass and the price of public debt increased in parallel. In order to cope for the enormous real interest rates (exceeding 15% a year and sometimes much more from 1973 to the Cruzado Plan), the State had to compensate by subsidies to the strategic sectors of the economy; this again increased the budget deficit.

During the '70s and early '80s, these perverse mechanisms developed further. Seigniorage reached its "Cagan limit" (17) and the issuing of treasury liabilities increased dramatically, with a number of denominations and various forms of indexation: on domestic price inflation, or on the dollar, or with an option between the two.

As a result, treasury liabilities became a major part of total assets. On the one hand, High Street banks were allowed to buy bonds in amounts several times greater than their own funds, and they financed it on the very short term money market through some form of Mutual Money Market Funds. On the other hand, this form of investment (called "overnight" in Brazil !) became the normal form for asset holding. An asset both perfectly liquid (as the label "overnight" expresses) and yielding a tremendous real interest rate ! Actually, access to the overnight was limited by entry barriers. Another form of deposit, the "Poupança" (saving), a public saving institution which was supposed to finance the social housing system, warranted a 6% real rate, with a universal access (down to the lowest incomes), but this form of saving was not completly liquid (money could be withdrown only once a month).

So, in the first half of the '80s, there existed in Brazil a real, non-monetary, form of saving for the populaton, the "Poupança", yielding a real 6% in

[1990d-en] "Lessons on Inflation from the Golden Age", "Seignorage, the Transfer Problem, and Vernacular Money", in Marglin (ed) Heterodox Shock Experiments UNU/WIDER project. Couverture Orange n°9017.

PAR ALAIN LIPIETZ (HTTP://LIPIETZ.NET)

QUATRIÈME PARTIE (SUR CINQ)

the short term, and another one, financed by overnight deposits, hence de facto liquid, yielding a higher real interest rate ! And the bonds held by the banks were themselves of shorter and shorter term. The mass of the population was still experiencing the difference between a vernacular money of ever diminishing value and its form of saving (the Poupança). The higher and middle classes and firms were now mixing money and saving in the form of the "overgnight", indexed on the OTN and yielding a higher return than the Poupança. Of course, upper classes and firms used also poupança for holding assets, especially in the periods where the real interest rates on OTN was below 6% (a thing that will be frequent after 1985).

The structure of asset holding in the economy (households and firms) shifted then dramatically from official (vernacular) money to "high" money (Table 2). In 1966, paper money represented 18% of assets, deposits on current accounts 62% and there was no Poupança. The remaining 20% of assets were non-monetary ones. In 1970, the (vernacular) monetary assets had dropped to 50%, the Poupança represented 4.1%, and debt titles represented the remaining. In 1978, monetary assets were still accounting for 32%, Poupança 19%. In 1985, monetary assets had dropped to 14% (paper-money: 2.9%), Poupança: 27%, and 59% were debt titles (in majority federal debts).

TABLE 2

STRUCTURE OF FINANCIAL ASSETS (%)

	A Curren-cies	B Cur. Acc.	C Monetary Assets	D Treasury Bills	E Saving Inst.	F Fixed Tern Deposits	G Other Public Debts	H Other fin. Assets	I Total Non-Monetary
1964	21.1	71.7	92.8	0.7	0.0	2.5	0.0	4.	7.2
1965	16.6	70.7	87.3	4.1	0.0	2.5	0.0	6.1	12.7
1966	18.0	62.3	80.3	10.2	0.1	2.4	0.0	7.	19.7
1967	14.1	59.7	73.8	11.4	0.3	3.4	0.0	11.2	26.2
1968	12.7	53.7	66.5	10.4	0.8	4.5	2.0	15.7	33.5
1969	12.0	50.0	63.0	13.0	1.5	4.7	2.0	15.8	37.
1970	10.7	45.7	56.4	15.7	3.3	7.1	1.9	15.7	43.6
1971	9.3	40.9	50.2	14.7	4.1	10.3	1.6	19.	49.8
1972	8.2	37.3	45.5	17.1	5.5	12.1	1.2	18.6	54.5
1973	7.8	36.6	44.3	15.8	6.7	12.2	1.5	19.6	55.7
1974	7.1	35.8	43.0	16.3	9.9	11.5	1.9	17.5	57.
1975	6.9	33.1	40.0	18.0	12.3	12.2	3.1	17.4	60.
1976	6.8	29.9	36.7	21.6	15.9	10.8	3.4	11.6	63.3
1977	6.6	28.2	34.9	20.8	18.1	13.6	3.2	9.4	65.1
1978	6.3	25.9	32.2	20.9	19.2	15.1	3.1	9.4	67.8
1979	7.0	27.9	34.8	16.6	21.8	15.1	3.5	8.3	65.2
1980	7.1	27.7	34.8	14.0	24.0	15.6	3.7	7.1	65.2
1981	5.4	20.3	25.7	23.3	25.5	16.0	4.2	5.3	74.3
1982	4.7	15.0	19.7	25.2	26.4	15.6	4.8	8.4	80.3
1983	3.5	14.0	17.5	18.2	34.6	18.4	5.1	6.2	82.5
1984	3.0	10.7	13.7	26.4	31.1	19.5	4.2	4.9	86.3
1985	2.9	11.0	13.9	32.1	27.1	18.6	4.2	4.1	86.1
1986	5.5	23.9	29.4	23.3	21.4	18.9	4.0	3.0	70.6
1987	3.6	11.7	15.4	33.3	30.3	14.1	5.9	1.1	84.6
1988	2.7	6.4	9.1	41.0	32.6	11.9	5.0	0.5	90.9
1989	2.9	4.7	7.6	50.5	22.5	9.9	8.5	1.0	92.4
féb.90	1.8	4.5	6.3	50.2	25.5	7.0	10.4	0.6	93.7

Source : Boletim de BCB

B = Current Accounts
D = O.T.N., L.F.T., etc...
E = "Poupança"
G = Debts of local authorities (States, Municipalities).

C = A+B , C+I = 100 %

Since holding of Poupança was also protected againt inflaton, the basis for "seigniorage tax" widely shrinked down (but in front of a widely increased rate). Actually, an important fraction of the benefits of seigniorage was transfered to banks, by some reverse-Tanzi-effect, because of the time-lags in the conversion between cash, current accounts, and overgnight (18). Very short lags, but upon huge masses and with roaring inflation! Besides, the banks kept for themselves a difference between the rate on the overnight and the rate on treasury bills.

But there was a third money: dollar. And in the early '80s, at the time of the "monetarist shock", dollar assets were yielding some 20% nominal rate on world market! That high real interest on dollar induced a high bottom limit to the real interest on OTN, thus boosting inflation. Moreover, in 1981 and 1983, in order to cope with trade deficits, the governement decided upon "maxidevaluations" (that is, real devaluation over and above the sliding devaluation covering inflation). Since one part of treasury bills were explicitly indexed on dollar, and since the substitutability of assets between the three monies on the "black market" was not negligible, the rate of interest on the public debt and the nominal value of its stock were increased again. In this process, the distinction of "dollarization" and "bondization" faded away, whereas the fiscal crisis of the State was increasing.

But at the same time, a hidden upper limit to the real interest rate was developing: any increase of real interest on treasury bonds would have devalued existing bonds in the hands of the banks, hence their assets, whereas their liabilities were financed on the overnight. As this risk of bankruptcy of the whole financial system increased, the Monetary Authorities, whose constituency are High Street banks (EPSTEIN and SCHOR [1989]), gradually lost control.

With the Cruzado Plan (February 1986), vernacular money recovered its reserve capacity, and a "remonetization" of economy occured: the share of monetary assets jumped back to its level of 1979. So the Monetary Authorities attempted to restore the distinction between money and credit. In May, a new kind of bill, the LBC (19), was created, yielding the average interest rate on the monetary market (that is a low real interest rate). LBC was supposed to be the "reserve" high money. And attempts were made to reintroduce long term paper, the LTNF (20), with a

risk for the final holder, but a higher interest rate. However, the bad habits of real interest-yielding money prevailed and this is a part of the explanation for the failure of Cruzado Plan. First, a "reverse monetary illusion" appeared on Poupança: with its newly low nominal interest rate, the Poupança appeared as "yielding no more what it used to", and that induced a boom of consumption (from popular revenues) and, for upper classes and firms, a shift to the black market of dollars (21).

But the nominal habits had also their effects on the "high" money market. When, in June 1986, the overheating of Brazilian economy became obvious, the Monetary Authorities tried to "cool down" in a classical manners by increasing the rate in the money market, hence the rate on the LBC. But that was immediately interpreted by asset holders as an indexation on inflationary expectations on the part of the Government. And that ruined any confidence on illiquid titles.

In the rules of the game that have been prevailing for years, money is supposed to increase by itself, even when used as a mere reserve instrument, even when the prices are frozen... That, also, is "inertia".

When, at the end of 1986, The Cruzado Plan collapsed, the situation jumped back instantly to 1985. The LBC (after 1988: the LFT) became the only "high" money. All the attempts to create longer term saving instruments were only accepted by the banks with the promise that the State would buy them back from the banks in case of difficulty in offering them to the public ("carta de recompra"). In fact, before, during, and after the Cruzado Plan, all the paper remained liquid whatever the official term, because the final holders where just engaged on the overnight, and the intermediate holders (the banks) kept open the possibility of monetizing them at the Central Bank. In fact, the ratio of the monthly volume of the turn-over on overnight to the total stock of federal debt nearly always stood between 70 and 80%. When the situation (in 1988) became overliquid (22), the Monetary Authorities had lost all means to subtract credits from the monetary mass. All debt was liquid, there was no more difference between high money and credit to the State. The only improvment was that the LFT would yield a low real interest rate (the one on monetary market) unstead of the pre-Cruzado high real-interest yielding debts (23).

The incident of June 1986, nonetheless, indicates an interesting possibility. When the rate of inerest on LBC went up, the banks which were still holding old middle-term bonds (ORT) experienced big potential losses. The State exchanged these old certifiates againt LBC, according to a smaller negotiated discount. That was the first (very reduced) experience of cancellation of domestic debt... Like in the international debt economy, bargaining power was appearing on the side of the debtor !.

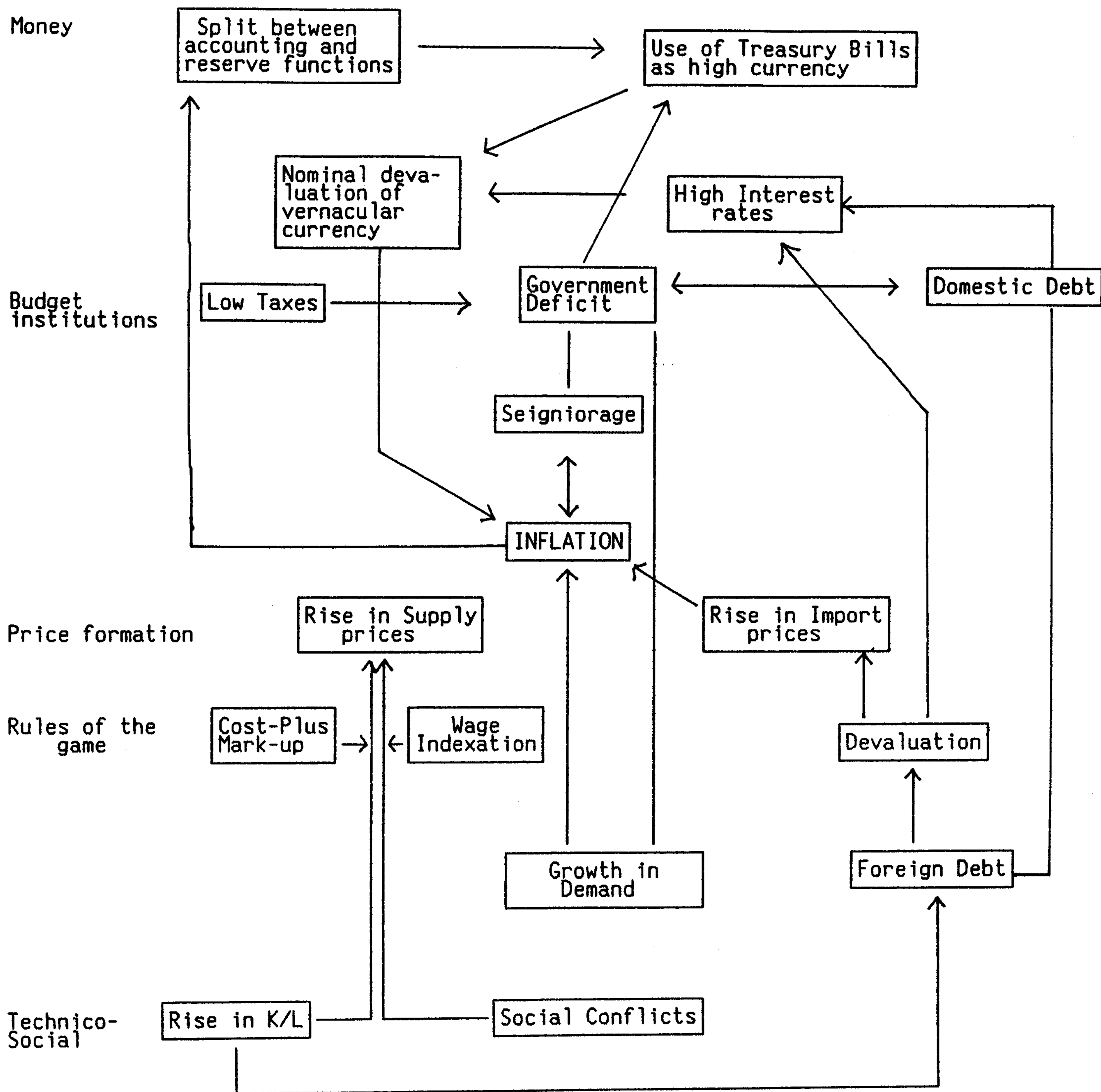

FIGURE 3

SYNTHESIS

AS A CONCLUSION

Once monetary aspects are taken into account, B-type inflationary process appears to be very complex to explain and to deal with. A synthesis is presented in figure 3.

The bottom-left of the figure expresses the "deeper" levels of explanation in terms of conflictual inertial inflation, as dealt with elsewhere in this volume. The bottom-right introduces foreign debt, which at first interferes directly with domestic inflation through devaluation.

The main new features appear at the middle-top and top levels: the budget behaviour of the State, and induced monetary behaviour of all domestic agents. Financing its domestic deficit and payment of foreign debt through insufficient taxation policy, the State has to rely upon domestic debt and seigniorage. These two features both induce and rigidify the tendency to use directly treasury bills as currency. This currency is disconnected from the accounting unit of money, whose equivalent in value decreases in line with the domestic rate of interest. This rate in turn is increased in order to crowed-in domestic savings, foreign currencies accruing from exports, and in order to compensate for maxi-devaluation.

Whereas in core-fordist economies inflation is embedded in rigid price-formation mechanisms, in B-type peripheral fordist economies of brazilian type, inflation is also embedded in the very monetary signs because of the mingling of money and debt. This perverse mechanism is worsened since the claims used as currency are freely issued by government according to its needs and because of its fear of tax-reform... and since the State's deficit is permanently increased by the very service of its domestic debt.

In such a situation, a price freeze and incomes policy are insufficient. Prices of commodities no longer increase only because of inertial-conflictual growth in the incomes of productive factors. The price of value added increases as because all liquid assets increase in nominal value, since the curency itself yields an interest. Money is no more an accomodating condition for neo-keynesian-type inflation. It becomes an active cause of inflation.

In order to do deal with this, money should be first distinguished from debt, with a clear-cut separaton of currency and interest-yielding assets. This implies giving up seigniorage (a device already burnt up). Hence the necessity for a real taxation, imposed in the income of wealthiest classes of agent, which took advantage of the general expenditures of government.

But these reforms are hindered by the weight of accumulated factors, which must first be eradicated. Among these, the question of external debt and the question of domestic public debt are the most obvious ones. The possibility for a monetary reform is subordinated to a settlement of the double debt problem.

There are first many arguments in favour of Third World's Debt cancellation. Ethical arguments: the Shylock-type policy of lenders is leading a majority of humankind to misery, illness and death. Macroeconomic arguments: since the repayment of debt means large net exports from the debtors, to pay off the debt would require curbing imports, which is to say, recession for the debtors (Third World and USA), hence a crisis in demand for the creditors (Europe and Japan). Juridical arguments: firms and individuals have a right to bankruptcy, without physical consequence (debtors are no longer gaoled, let alone put to death). Why should populations suffer in their flesh from the consequences of a contract they never signed, and whose terms were changed unilterally by the creditors during the "monetarist shock" ? Why should new democracies be accountable for the debts of a dictatorship ?

While Third World's debt cancellation is both fair and necessary, it remains to be shown that some new Bretton-Woods Confrence could solve the problem without a general bankruptcy on the side of the banks. But this is another issue (24).

Second, the domestic State debt, which is a consequence of the former one, has also to be repudiated. This could be done by a devalorization of the claims of civil society upon the State: particularly from the holders of high money. Arguments in favour of this devalorization may also the convicing: necessities of stabilization, undue financing by the State of the benefits accruing to exporters

from past credits, and so on. The form of this devalorization could be a selective freeze of overnight deposits, with a de-indexation of high money. Anyway, if high inflation turns into hyper-inflation, that devalorization will happen in a savage way: panic exchange of treasury bills against vernacular currency, the value of which is vanishing, and then against rocketting dollar.

To conclude, a "heterodox shock" should be matched by two other shocks:

- a shock on external debt
- a shock on internal debt.