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INFLATION, NORTH AND SOUTH : MONETARY ASPECTS

by

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CHAPTER 2

LESSONS ON INFLATION FROM THE GOLDEN AGE

A basic assumption of non-monetarist economics of inflation, either (neo)-marxist or (neo)-keynesian, is that there exist some "deeply" rooted causes for inflation, either at the level of production, or distributional conflicts, or institutional processes of price formation, even in the absence of disagreement about distribution (e.g. ROS [1990]). Money matters, but as an "accommodating condition" for the unfolding of inflationary process. This should not lead to a neglect of monetary questions. Being a part of the institutions framing the "rules of the game", or "mode of regulation" of any single economy, money plays its role in the very shaping of the behaviours and expectations that are part of the "deep causes" referred to above.

In this chapter, we shall first rely on previous works about inflation in "core economies" during the "Golden Age" of post-war boom: the model which is sometimes called "fordist" (1). In the first section we deal with the latent inflation of the "Golden Age", and in the second section with the "open" inflation of the late sixties and seventies. In another chapter, we will try to adapt some of these insights to the monetary aspects of inflation in "Brazilian-type" economies.

I - NOMINAL CHANGES IN THE GOLDEN AGE

In our presentation of the institutional and behavioural rules of the "Golden Age" (GLYN et al [1988]), we gave little attention to their "nominal" outcome, that is the expression in money of the magnitudes we deal with: prices, wages, profits, and so on. Like most macroeconomists, we assumed that these magnitudes have a "real" significance independent of their valuation in prices. Implicitly, we accepted the possibility of some aggregation apart from one in terms of current prices. And since we spoke mostly of "productivity", "capital per capita", and so on, we accepted the connection between commodities and the time

dedicated to produce them. Hence, implicitly, we assume some version of the "labour theory of value", just as the Classics, Marx, Kalecki, and (as may be shown) Keynes and post-keynesians do.

But that does not mean a sharp distinction between a "real" world (measured in quantities and in labour-value) and a "monetary veil". Money matters from the begining, since a macroeconomic pattern expresses the way products offered at a given price are cleared off by money revenues. The problem is that the laws which rule the "deep" magnitudes of the Golden Age (productivity, real purchasing power, a.s.o.) are not the same as the ones ruling the nominal magnitudes. So we are now to study the "normal" outcome of these last laws (sometimes labeled "external connexions" (2)). We shall see:

1. that a crucial outcome of these laws - the general level of prices - is <u>not determined</u> under the institutional and behavioural frame of the Golden Age: neither its level nor its rate of change;

2. that yet the rate of inflation is likely to be positive,

3. but not outrageously positive;

4. that there are reasons for the rate of inflation to be considered as "normally" null;

5. that, even before the end of the Golden Age, there was a built-in tendency for creeping inflation.

In order to do this, we shall rely upon a "post-marxist-post-keynesian" synthetic theory of price and wage seting, as developped in previous works of the so-called "Regulation-school" (e.g. LIPIETZ [1983]) and in MARGLIN and SCHOR (ed) [1990].

1°) <u>A "Time-chain-pricing"</u>

Both the macroeconomic pattern and the institutional - behavioural pattern

of the Golden Age lead to a peculiar way of fixing prices, that could be sumarized as follows. According to the macroeconomic pattern of the fordist Golden Age, the increasing value added accruing from the gains of productivity had to be shared in a stable way between profit and wages. Thus, the nominal wage was supposed to grow as the sum of inflation and productivity. As a consequence, the real profit rate was a function of this constant sharing-out and of the capital/output ratio. Since this ratio was roughly contant during the "Golden age", the rate of profit was constant too. The behavior of price-making and wage-settlements were both the consequence of this pattern, and the condition for the operation of the "rules of the game" regulating this pattern. Prices and wages were fixed according to a notional knowledge of the "real" evolutions:

(Prices, Revenues at t) ——————→ (Prices, Revenues at t+1)

More precisely:

$$w' = pv' + \pi' \qquad (I)$$

$$pv\ (t) = R\ k(t-1) + w\ (t-1)\ l(t-1) \qquad (II)$$

with w, pv, π, l respectively equal to wage (nominal rate), price of value added, productivity, unit input in labour; k stands for full cost of fixed capital per unit of product at current prices, R for administered mark-up, ' for logarithmic derivative (change in %); script for nominal magnitudes (3).

In fact, the second term of equation (I), is not exactly π', but the "Annual Improvement Factor" added to the "Cost Of Living Adjustement" (in the US collective bargaining "COLA+AIF" formula). When there is a correct estimation of the "real" possibilities of the economy, and a social agreement on the model (e.g. in Austria, Germany, Sweeden...), then AIF = π' and R is equal to the resulting rate of profit. But even in that case, AIF and the mark- up R are notional and subject to mistakes. Later, we shall return to the question of the robustness of Equation (I) and (II).

It follows immediately, from these behevioral rules, that the Net National Product of one period, expressed in money (with L = total employed labour, K = total assets):

$$VA(t) = R\,K(t-1) + w(t-1)\,L(t-1) \qquad (III)$$

is a mere function of the corresponding nominal magnitudes in the past, and changes in the "real" magnitudes L,K,π'. Contrary to the monetarist interpretation, the nominal national product is <u>not</u> determined by the product of the real product Y multiplied by a level of prices resulting from an exogenous quantity of money (the monetarist interpretation of Fisher's identity). On the contrary, the level of prices is here endogenously determined by I and II, and the Money Expression of social Labor (or average labor productivity in nominal terms) is deduced from III:

$$MEL(t) = VA(t)/L(t) \qquad (IV)$$

The inverse of this quantity is the Labour Equivalent of Money:

$$LEM(t) = L(t)/VA(t)$$

It is an index of the purchasing power of money on the product of labor (hours of labour by dollar). Once again, it does not depend on an exogenous "supply of money", but from behavioral "rules of the game" (4).

That notion of (Labour)-Value of Money is clear but not very practical. In fact, inflation appears as a fall in the puchasing power of money on <u>commodities</u>, not hours of labour. Thus, it must be measured through another aggregation principle, the so-called "volume" of the National Product. As is well known, aggregate volume is a fuzzy notion, since the structure of the net product changes. Nevertheless, we skip that difficulty through some index-theory as soon as we speak of "aggregate productivity" $\pi(t)$ and "level of prices" $p(t)$. In fact, price-index theory reflects the notion that people are sensitive to the fact that "in general" prices (for unit physical commodities) are rising or decreasing, and the degree of that feeling, expressed in some deflator or index, is a basis for

collective bargaining on wages.

That enables us to deduce the level of price p from the value of money (5)

$$p(t) = \frac{VA}{Q} = \frac{VA}{L} \cdot \frac{L}{Q} = \frac{MEL(t)}{\pi(t)} \qquad (V)$$

This is a mere identity. But, contrary to Fisher's identity, it outlines that the level of prices in a result of two social processes. The "deeper" one (in the denominator) is social productivity. The "surface" one is the result of the "time-chain-pricing" (LIPIETZ: [1983]) defining the Money Expression of Labour in (IV). In a gold money regime, the latter is defined independently through the relative price of gold. In a pure credit-money regime, it depends on the behavioural rules of the game (indexation, mark-up pricing). In any case, the amount of money has to grow according to the growth of the national money value-added VA(t). This is more likely to be possible with "inside money" (in the terminology of GURLEY and SHAW [1960]) than with gold-money; and that was the case in the Golden Age (6).

Moreover, as Marx acknowledged long ago and as is acknowledged by post-keynesians, neither the level of prices nor the rate of growth of that level are fixed any more. Suppose, for instance, as Marx does, that the productivity and the real wage are constant, but that the mark-up rate R is higher then the real rate of profit resulting from the share or profit in value added and the capital/output ratio. Then <<As far as the capitalists are concerned, it is all the same whether they charge one another 10 per cent profit or 15 per cent. The one percentage covers no more actual commodity value than the other, since the inflation of the monetary expression is mutual. For the workers, however (we assume that they receive their normal wages) the increase in commodity-prices resulting from this rise in the average profit must correspond to an increase in the monetary expression of the variable capital. In actual fact, a general nominal increase of this kind in the profit rate, and hence in average profit, over and above the level

given by the proportion of the actual surplus-value to the total capital advanced, is not possible unless it brings with it an increase in wages and similarly an increase in the price of those commodities which form the constant capital (7)>>.

In this exemple, where productivity is assumed to be constant, we have a perfect foresight of what could happen with wage indexation and administered mark-up: inertial and conflictual inflation. A multisectorial mathematical model of this phenomenon (in a Sraffaian framework) is provided by NIKAIDO and KOBAYASHI [1978], who implies behavioral equations equivalent to our (I) and (II). Of course, for Marx, it was an argument in favour of an objective limitation of R, once w is given in real terms. But since credit money imposes no limit on the growth of nominal value added, what Marx considered in ironical terms turns out to be an open possibility.

2) Why is price decrease unlikely ?

The macroeconomic pattern of the Golden Age expresses a sharing-out of gains in productivity between firms and wage-earners, these ones being the majority of customers. A *priori*, such a pattern could be achieved through a stability in nominal wages and a nominal law of price in the form:

$$p' = - \pi' \qquad \text{(VI)}$$

That is : a diffusion of the benefits of productivity directly to the customers. That new law could hold with our first one (I) (with then w = constant) and even with some variant of the second, in the form: $p(t) = \mu\, w\, l(t)$ (since $l(t)$ is the inverse of π). Now, is this likely to happen?

Something of this kind took place within the classical, competitive mode of regulation. In the nineteenth century, progressive technical changes were slow and discontinuous. The growth of aggregate social demand, especially from the workers, could not be anticipated by the atomistic firm. Each time such a firm would introduce a new, more productive design, it could think of no other way to increase its sales than to conquer a major share of the existing market. So it would reduce its price, less than allowed by its gains in productivity, but enough to compete

against others (8). The other firms had to adopt the new technology or perish.

That form of price-war competition was far from conducive to a stable, growing market and, moreover, certainly did not lead to expectations of growing cash flow and profits. The over-production crisis was a permanent threat, and booms were transitory reprieves. With steady and high rates of growth in productivity introduced by Taylorist methods, such a process led to the disastrous depression of the thirties.

The answer of Henry Ford was: let us grant a share of the productivity gains directly to the wage earners as an increase in nominal wage. <<My best bargain was granting "5 dollars a day", but I made a better one granting 6 dollars a day ! >> Ford's idea was that a higher wage would: a) induce workers to increase productivity, b) increase outlets for his production <u>if</u> other bosses were induced (through competition on labour market) to do the same (9). That was a dangerous gamble for a single firm, however big it might be. But it is no more so if <u>every</u> firms are obliged to match the stake of the most productive ones, because of collective or connecting bargaining, and/or because of growing compulsory minimum wages.

And that is what happened in the Golden Age. Here competition and the diffusion of productivity is the result of a war fought in the labour market by raising wages, not lowering prices in product markets. Once again, the followers have to adapt or perish. The difference is that now demand is <u>expected</u> to grow, and the problem is to capture a share of this growth. At the nominal level, one factor of production at least has a rising price: labour. Possibilities of fall in price remain in relatively faster progressive sectors (10). But the rule is now: stability or maybe growth in price, and competition through quality and productivity.

All this does not discount the possibility of an autonomous trend in price (p' positive) in addition to a stable sharing-out of value-added: a zero-sum game between R and w, in addition to the sharing-out of productivity. We are here at a point where two types of economy, which we shall call "core-fordist and "brazilian", may diverge. So we must to look more closely at our laws of growth of

nominal revenues.

3) "Satisficing" behaviour.

Since the rate of growth of productivity π' is not really known, nor the "real" profitability r, once an autonomous inflation exists from any level of price (that is: p'(to), p(to), w(to) are given as initial conditions for our system of equations) it has good reasons to go on as "inertial" inflation. A zero-inflation with $w' = \pi'$ is therefore most unlikely (11). And in fact, creeping inflation has been a constant reality during the Golden Age: unequal across countries and sometimes important during its rise (early 1950's), slower and converging during its zenith (in the sixties), accelerating and more unequal during its fall.

Yet, it is rather a surprise that the inflation was so low, since credit money seems to allow for any autonomous inertial inflation added to the "normal" sharing-out of value-added. After all, why not impose any mark-up? Why not fight for any increase in nominal wage ?

Here, "maximizing" behaviour is of little help. As TYLECOTT [1981] explains, agents do not have a maximizing behaviour: they just try to reach a "reasonable" target. SIMON and MARCH [1958] support him : <<Most human decision-making, whether individual or organisational, is concerned with the discovery and selection of satisfactory alternatives; only in exceptional cases is it concerned by optimal alternatives>>.

Obviously, social agents would prefer higher R or higher w. When they have the bargaining power to reach it, they do. Yet, within their struggles, they have some feeling that "unreasonable" victories may turn into dangerous troubles, either microeconomically, when fixing w (strikes, failure) of R (losses in competition), or macroeconomically (through inflation, precisely). Hence "creeping inflation" of the sixties appears mainly as a result of "social mistakes" in the appreciation of the real feasible sharing-out. But in every country the determination of the rate of inflation is the result of a multitude of struggles and compromises.

Let us examine what prevented the compromises from resulting in an arbitrary rate of inflation. We assume that two nexus may be isolated: the conditions of competition (when bosses fix R), the condition of wage-bargaining (when fixing w'). Later, we will turn back to the regulating action of the State. The distinction between these two first nexuses in disputable. One may argue that, with more competition, firms would lower their mark-up, "hence" grant a greater share of productivity gains to the consumers. But for the same reason, they would be more reluctant to grant increases of wages to the workers: so the sharing-out of total value-added could be unchanged. Thus, it may be slightly artificial, but more convenient, to abstract two different nexuses: one (between bosses and wage earners) about the increase of nominal wages, one (between bosses and consumers) about the mark-up, hence about price increases.

a) The business - business nexus.

Microeconomics theories imply that a perfectly competitive market-structure leads to zero pure profits. But the interest on committed capital is included in the "cost-price" for the firm. And since the firm itself may have the opportunity to lend its savings, the rate of interest appears as a regulating bottom limit for the "cost-plus" pricing, even in competitive market structure.

On the other hand, neither do oligopolistic or even monopolistic structures lead to an infinite mark-up either. The price-making firm maximizes its profit according to a notional demand-curve. Even if the qualitative segmentation of markets results in a monopolistic structure, the customer has the choice not to buy the "unique" (but still substitutable) product that the firm offers to him/her.

So profit-maximizing microtheories say nothing but that, whatever the level of concentration may be, the mark-up has no reason to become arbitrarily high, nor null. This leaves a range for "satisficing" mark-up.

Now, let us turn to econometrics. French studies (BOYER, MISTRAL [1978]) seem to prove that concentration leads not to higher rates of mark-up, but to more rigid rates, that is: a looser responsiveness to the business cycle. And it is true

over time (the mark-up is much more stable in the Golden Age than before World-War II), and across sectors (sectors with higher concentration have a more stable mark-up; competitive sectors have sometimes a higher margin, sometimes a lower margin than the monopoly sectors, according to the business cycle). More importantly, there are differences accross countries: USA behaves like a more competitive economy compared to more "administered" countries like France.

Now, what about direct enquiries among price-makers ? The survey by TYLECOTE [1981] about that kind of inquiries (12) delivers the same vague results: firms fix their margin according to habits, or notions about what is good for the market. Surprisingly, when Marx asked his businessman friend Engels the same question, he got the same answer. The match betwen "Supply and Demand" has never settled the supply-price. The difference is that, at the time, a firm would lower its price when discovering unsufficient demand, now it would adjust through quantity. And this is certainly the outcome of the more monopolistic structure of the market.

b) The wage bargaining nexus

There is a great difference between this nexus and the former. The fixing of R is a day-to-day unilateral decision of business-persons. On the contrary, w (or w' in case of long term contracting) is fixed for a while, and renegotiated according to an agreement on schedule, or during a strike. The normal situation during the Golden Age was that the nominal wage was not the result of a strike. Certainly the bargaining power of workers was strengthened by the various components that could decrease "cost of job loss" (the situation in the labour market, the probability of finding another job, the difference between wage and dole; see MARGLIN and SCHOR [1990, ch.1]. Yet these components cannot be considered as parameters of maximizing behaviour, but as parameters for a "satisficing situation". The behaviour of workers is more aptly captured within a "voice or exit" problematic à la HIRSCHMANN [1970].

The criterion for a "satisficing" situation depends mostly on the situation of other workers as a whole and on expectations of individual promotion. So the "wage/price" spiral is mediated by a "wage/wage" spiral (TYLECOTE [1981]). The

autonomous parameters of this wage/wage spiral are, from below, a national legal minimum wage, and, at the top, some increases in wage obtained (with or without a strike) in some leading sector or firm (EATWELL, LLEWELYN, TARLING [1974]). The "social conquests" (mostly: nominal wage increases) obtained in the leading sector depends on the capacity of the firms to resist higher claims. Obviously, firms are less likely to resist claims as they obtain high growth in productivity and as a higher capital/output ratio makes strikes more costly.

If both the leading firms and the State behave wisely, they will grant increases in real wage parallel to gains in productivity, either for the later microsocial argument (costs-benefits of avoiding a strike) or for the macroeconomic "Golden Age rules" argument. Then the "connecting bargaining" and the wage/wage spiral would lead to a diffusion of a roughly homogenous rate of growth in nominal wages, strikes being the last weapon against reluctant bosses. In a very "norm-conscious" country such as France, the process was sufficiently smooth that one may retrospectively compute with pretty good precision the nominal wage of <u>any</u> skill in <u>any</u> sector, once one knows the legal minimum wage and the wage of skilled operatives in the chemical industry (GASPARD and LECUYER [1980])!

4) <u>The regulating action of government</u> : <u>Zero-inflation as a norm</u>.

The previous considerations suggest that, as far as the macroeconomic rules of the Golden Age are respected, there is no serious case for the explosion of a nominal wage-prices bubble. Then, a "sound" indexation of wage on low inflation, plus an annual improvement factor parallel with productivity, matched by a realistic mark-up according to the real profitability (that is: real profits/real assets), hence a non-accelerating inflation, are not chimeric. Nonetheless, tendencies to growing inflation exist: we come to this point later. Before doing so, let us examine if, why, and how governments could take zero-inflation as a target in the Golden Age.

Obviously, zero-inflation was a norm in the sixties. Not a strict one. A comparison with "drug" addiction is suggestive. Economies of the time were addicted to soft inflation. Hard inflation was rejected as a sin, while soft inflation was tolerated as softening the social bargaining. Nobody argued that the

way to share out productivity was to reduce prices. Thus, zero inflation was the norm for governments, solft inflation was a concession to human nature.

Why was it so, since within credit money there is no natural reason leading to this norm? First of all because the pure "credit" character of money was not perfect and acknowledged. National currencies had to be exchangeable against the international standard: US dollar. And a condition for the hegemony of dollar was the myth of its connection with gold: the "currency principle" applied to dollars only (13). In fact, even the dollar was a credit money according to the "banking principle". But the illusion of a "currency principle" for the key currency hold until 1971. Since this illusion implied (incorrectly) that the purchasing power of dollar was equal to the relative price of gold to other commodities, stability of dollar-price was the condition for confidence in the dollar.

Thus, zero-inflation was a norm for dollar. Now, why was zero-inflation, that is no-devaluation against dollar, a norm for other currencies ? Well, it was not really. Many countries (including the "young fordist nations", Japan, Italy, France) accepted quietly that, having to grow faster than the older leaders, USA, Great Britain and Germany, they were right in accepting higher inflation. As far as this general inflation was not offset by a distortion of relative prices in favour of the export sector (e.g.: Japan), inflation would lead to losses in competitiveness that could be corrected only through devaluations. But devaluations, according to Bretton-Woods, could not be undertaken unilateraly. They were acceptable when correcting "structural difficulties", but not as a freely disposable weapon for competition.

To this "international" argument we have to add domestic considerations. As, obseved in section I-2, growth in nominal revenue is the natural behaviour of a pattern of development which seeks at first to guarantee outlets, through ex ante growth in nominal monetary demand, and then adjust so as to secure a balanced sharing-out of growth in value-added. A preference for real growth as against stagnation is the excuse for laxity in nominal growth.

As long as the inflation is a small quantity of first order (say, 0 to 5%), differences in relative growth rates between various agents' incomes are second order and can be neglected. When the rate of inflation increases, first order

distortion appears between sectors with different degrees in their ability to index revenues. Separation of real and nominal gains and losses become difficult. This difficulties itself may be a reason for the "preference for inflation": industry at first benefits from inflation in easier service of its debts, idle savings are punished for betrayal of Say's law, governments may reduce their debt, "victories" of unions can be shifted off by a general increase in prices, and so on. But there are limits to the use of inflation in these ways: lenders may revolt, unions may anticipate accelerating inflation (the nightmare would turn real in the seventies). These reasons an sufficient to understand why, though accepting soft inflation, governments and public opinion would consider zero-inflation as a norm.

Now, how could a governement limit inflation? By three different policies.

* It may directly control the setting of nominal magnitudes: w, p, and even R. That policy is contrary to the beliefs of liberal capitalism, yet it is as a last resort an efficient policy. Its effects on the evolution of real magnitude is weak, but it will be used with some success during the fall of the Golden Age.

* It may limit nominal demand through tighter fiscal policy. This cooling-off policy is aimed at controlling the evolution of nominal magnitude through a direct limitation of real growth. This may be a convenient policy when the distribution of nominal claims on national production obviously exceeds the capacities of national productive apparatus. In these "overheated" situations, inflation is generally connected with deficits in the trade balance. But a tight fiscal policy can limit potential production (hence inducing idle capacities) in the name of a useless "orthodoxy". What happens then ? The value added at supply prices VA(t) is fixed in "before tax", or more precisely "before tax tightening" terms, and the nominal demand is reduced by the decrease of budget deficit. Unwanted inventories appear. Firms may react through lay-off, renegotiation of wage increase, and maybe be a reconsideration of administered mark-up. But that reconsideration may lead to an increase of the mark-up, so as to reconstitute profitability. The road is open then to stagflation.

* The a priori more efficient way to heal off inflation is to redure the growth of liquidity which makes the realisation of value-added at supply prices VA(t) impossible. A very dangerous way that will be accepted only at the end of the seventies.

The operation of that "monetary policy" must be well understood. With credit money, still more obviously than with commodity (gold) money, the mixed dynamics of production and of formation of nominal prices and revenues determine the nominal amount of supply VA(t). Inside money is created according to the needs of circulation of that amount of value added. The issuing of currency is devoted to the banking system. Individual High Street banks create money according to their evaluation of future revenues of the borrowers: they "prevalidate" these revenues (see LIPIETZ [1983], MEHRLING [1988], GUTTMAN [1988]). Since "loans make deposits", the agregate amount of credit-money is a priori unlimited, in fact it is determined by the requirements for the realisation of a growing VA(t) (14). These requirements are only mitigated by the doubts of banks, and the difficulty of securing a social acknowledgement of the value of their assets through their exchangeability ("pseudovalidation") against first order debts issued by Central Bank. These first order debts are the "official money", the only credit endowed whith all the caracteres of a money (15).

Hence the policy of the Central Bank in the money market is the only explicit regulation of the issuing of new credit. It is the Central Bank's responsibility to lay a global judgement on the liquidity of the whole economy. The strictest tool of that policy is quantitative control of credit, but the most commonly used is the capacity of Central Banks to influence the rate of interest at which banks refinance their liquidities. This hierarchy (AGLIETTA and ORLEAN [1982], LIPIETZ [1983]) both avoids the instability of the propensity of banks to loan, and on the other hand limits their capacity to issue a quantity of money accommodity any growth whats over in nominal value added. But, except for the case of very strict monetary policy, it is difficult for the central bank to control the self-proliferation of inner money (16).

What happens when the creation of credit is limited ? Once again, the demand expressed in money (which is partially financed by new credits) can no more match the supply expressed in money. Once again, at first, prices do not fall: it is the quantity of transactions that decreases (or slows down). Then, firms are induced by higher interest rates (17) to lower the level of their borrowing, hence their capacity to invest and increase their turnover (wages + intermediate goods)... And once again they may be less lax in wage-bargaining and less ambitious in their

mark-up.

So, just like fiscal policy, monetary policy-with the tool of higher rate of interest-may cool-off inflation through a limitation of real activity. That was for the most part sufficient, and not really harmful, to smooth oscillations around the Golden Age path. Both these reasons (State policy, carefulness in competition) induced the typical groups of agents of the Golden Age to converge towards "reasonable" nominal behaviour, the mark-up tending to respect real profitability, and the improvment in real wages the growth in productivity. But behaviours were not so perfect.

5°) Embedded tendencies to inflation

Up to now, we have already noticed a systematic macroeconomic bias to general price increase that could be limited by a better knowledge of the real capacities of the productive and macroeconomic pattern. If $w' = \pi'$ and $R = r$ (the real profitability) things may be all right! But what are π and r? And are wages and profits the only share-holders of economic general progress? There is the rub.

Even in a national economy of pure capitalists and wage earners, rates of growth in productivity are not homogenous. Suppose that in the "leading sector" (see above) the growth of productivity is 10%. This sector negociates a 10% increase in nominal wage. Its costs do not change nor its prices. But in the whole economy, the average productivity increases at 5%. If the "connecting bargaining" induces a general increase in wages of 10%, unit labour cost increases by 5%. If the other sectors are in position to impose a "normal" mark-up, general inflation is 5%. The other result is a change of relative prices, and a change in structure of consumption.

This "productivity dispersal inflation" identified by STREETEN [1962] and KOLM [1970] points out a more general problem. The macroeconomic pattern and the institutional and behavioural frame imply a general increase in welfare, according to a general social hierarchy, and independant from the individual insertion within a more or less progressive sector (or singular firm). There are differences between sectors, genders, regions, ethnics, but the levels of revenues are all on

the same escalator. The "wage/wage" spiral is also a "wage in private/wage in public sector" spiral, an "industry/ agriculture/services" spiral, and so on. The greater the inequalities, the greater the tendency to "catch up". The more heterogenous the productive apparatus, the more inflationary the form of this catch-up.

And the worse is to come when new share claimants would come into the game, and when the whole productive basis would exhibit weaknesses in the surplus it can supply.

II - TARNISHING GOLDEN AGE, RISING INFLATION.

It has been long since many economists have identified the great inflation that started in the late sixties to finish in early heighties as a "wage-profit-bargaining spiral inflation". This is a correct point of view, since the institutionnal logic of the Golden-Age dispenses with the distinction between "cost-push" and "demand-pull" inflations. In the Golden Age, growing demand is secured through growing administered revenues, which in turn define costs, through the mediation of capital and labour productivities.

But this kind of explanation is not sufficient: it only allows for the formal possibility of inflation. As we have seen in section I-4, zero-inflation was nonetheless the norm, and soft inflation the reality at the zenith of the Golden Age. So, why the acceleration of inflation? From the previous discussion, we may drow a distinction between "active" causes of inflation and "passive permissive conditions of inflation". "Active causes" are the ones that result in an increase in the money equivalent of labour faster than the increase in productivity (see formula V). "Passive conditions" are the absence of monetary limitation to a mainly nominal growth of value added. Of course, that is a schematization: as far as they are institutional, "active" causes are hardly distinguishable from permissive conditions. Yet the distinction outlines the major character of the period: growing difficulties at the productive and macroeconomic sides of the model of development, attempts to defer its crisis through well-known keynesian devices up to the end of the seventies.