Rigid Prices, Flexible Prices and Inflation *

1. Introduction

The concept of a general price level may be of some use — though to a limited extent — in purely statistical and descriptive studies, but it is dangerous and deceptive in the field of theoretical analyses which aim at explaining price variations. In order to be fruitful, these analyses must, as a first approximation, distinguish between two kinds of markets — those for raw materials and for manufactured goods — and as a second approximation between at least five kinds — three wholesale markets (for agricultural, mineral and industrial products respectively) and two retail ones (agricultural and industrial products, and, in the second place, services); the labour market calls for separate consideration. The analysis must be differentiated in this way because, in the short and long run, the mechanisms of price formation and variation are different for reasons connected with the market forms and the types of goods. Here I will devote special, though not exclusive, attention to the dichotomy — raw materials and manufactures. This as regards goods. I shall introduce another dichotomy with reference to the labour market. The logical basis for the double dichotomy is given by the degree of flexibility, in relation to demand, of prices and earnings.

2. Prices of Agricultural Products in Domestic Markets and Prices of Raw Materials in International Markets

We shall therefore begin with the prices which are formed in wholesale agricultural markets. As a rule, these markets are in conditions close to competition, in the sense that entrance is free and the

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producers, even when they are relatively large (various multinationals are now operating in agriculture), are not in a position to exercise a substantial influence on prices. In these circumstances, the propositions of the classical economists are valid: prices, in the short run, depend on demand and supply, and, in the long run, on costs of production. Similar propositions hold good, in principle, for the prices of mineral products. However, important qualifications must be made for both categories of prices.

In the first place, it is essential to distinguish between the prices formed in international markets from those in domestic markets. For the same products, prices will tend to vary together; but the link will be very close in the case of domestic markets which are not protected by customs duties (but are protected solely by the cost of transport and by other obstacles defined as "natural"); as against this, the link will be loser in the case of protected markets. Moreover, in the case of international markets, speculation is a very important factor, so that, when price increases are anticipated, the tendency to build up stocks is reinforced, whereas the opposite takes place when prices are expected to drop. Assuming equal technical costs, the tendency to hold stocks is favoured when traders (including speculators) and producers can easily obtain bank loans and when the rate for interest on such loans is low, whereas the tendency is damped down when credit is limited and costly.

Thus, it may be assumed that, in individual domestic markets, the prices of agricultural products depend on demand and supply and on the international prices of these products. As an empirical check, overall demand for consumer goods (C) can be used as a variable representing the demand for agricultural products. The supply (O_a) is given by the algebraic sum of the harvest (Y_a) and the variations in stocks (ΔSC_a), which must be added to (Y_a) when these variations have a minus and subtracted from Y_a when they have a plus sign. For the domestic markets, given the limited importance of the speculative element, it does not appear necessary to isolate and "explain" the variations in stocks.

To conclude, in order to analyze the variations in the prices of agricultural products in the short run, within domestic markets, we have an equation of the type

$$P_a = a_1 + b_1 C - c_1 O_a + d_1 P_{Ai} \qquad (1)$$

where P_{Ai} is the index of international agricultural prices and

$$O_a \equiv Y_a - \Delta SC_a \qquad (1a)$$

Considering that all the variables of equation (1) tend to grow, we should use either the deviations from the trend of these variables or (even better) the rates of variation.

The agricultural products traded in international markets are mostly raw materials used in the food and textile industries. Hence, the demand for these products can be represented by an index which expresses the evolution of these two industries at the world level; for the sake of simplicity, it will be enough to use the industrial countries' index of industrial production (such as the relevant index worked out by the United Nations). As regards supply, in the case of the international markets, stocks can be isolated and "explained", using, as an independent variable, the short-term nominal rate of interest in the major international financial markets. (Since there is no rigid relation between interest and the volume of the loans, we could introduce, as a second variable, the variations in these loans too.) If it is recognized that expectations of a speculative nature have become decidedly more important after the weakening of the dollar as a reserve currency (Biasco, 1979, p. 85), an explicative variable should be introduced expressing the degree of confidence in the dollar in the international markets. Such a variable could be the weighted average of the exchange rates between the dollar and the major currencies or else (and possibly better) the price of gold in dollars.

The remarks on agricultural materials traded in international markets hold good for the mineral raw materials traded in these markets. However, in the case of agricultural raw materials, the supply can be subject to marked fluctuations because of harvests, which are affected by unforeseeable and uncontrollable seasonal influences. In the case of mineral products, the short-term supply hardly varies; if anything, it tends to vary in accordance with a trend which may have important consequences in the long term, but not in the short term. Hence, in the case of mineral products, it will normally be sufficient, for the supply, to consider only variations in stocks. (Where data on stocks are lacking, it can even be sufficient to regard prices as a function of demand alone.)

To conclude, for variations in the international prices of agricultural raw materials (M_A) in the short term, the following equations hold good:

$$\hat{M}_A = a_2 + b_2 P\hat{I}M - c_2 \hat{Y}_{Ai} + d_2 \Delta SC_A \qquad (2)$$

$$SC_A = a_3 - b_3 i - c_3 DO \qquad (3)$$

and, for the international prices of mineral products (M_M), these equations apply:

$$\hat{M}_M = a_4 + b_4 \, P\hat{I}M + c_4 \, \Delta SC_M \qquad (4)$$

$$SC_M = a_5 - b_5 \, i - d_5 \, DO \qquad (5)$$

where the cap over a variable indicates a rate of variation, *PIM* is the index of world industrial production (this index can serve to express the pressure of total demand for raw materials), Y_{Ai} is the index of world production of agricultural raw materials, *SC* the index of supplies (Δ = first difference), *i* is the rate of interest and *DO* the index of the degree of confidence in the dollar in the international markets. The uncertainties as regards the dollar *qua* reserve currency began when the dollar was unhooked from gold (15 August 1971), since the institutional support for that role was then suppressed — a support consisting of a provision in the Bretton Woods Agreements (see Siglienti, 1981); the

GRAPH 1

INDUSTRIAL PRODUCTION AND PRICES OF RAW MATERIALS
(rates of variations)

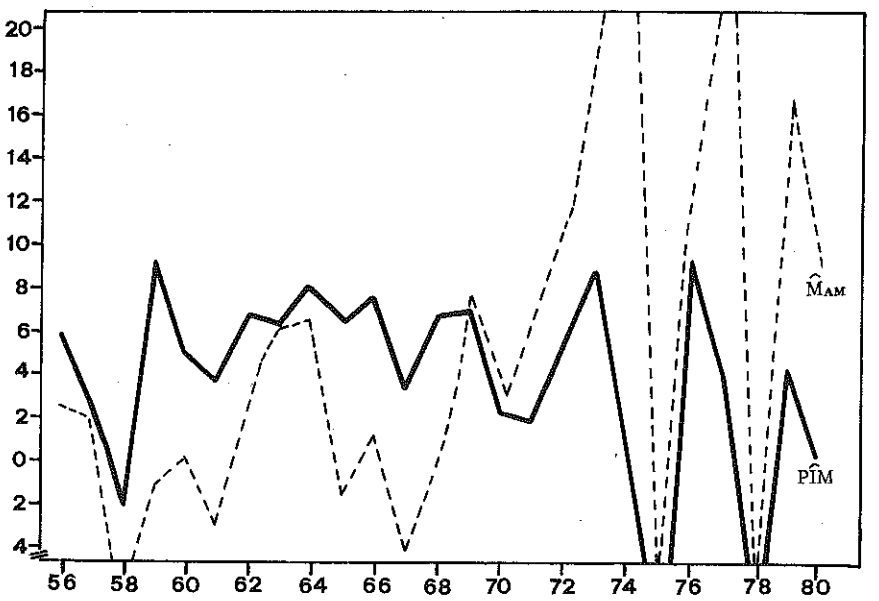
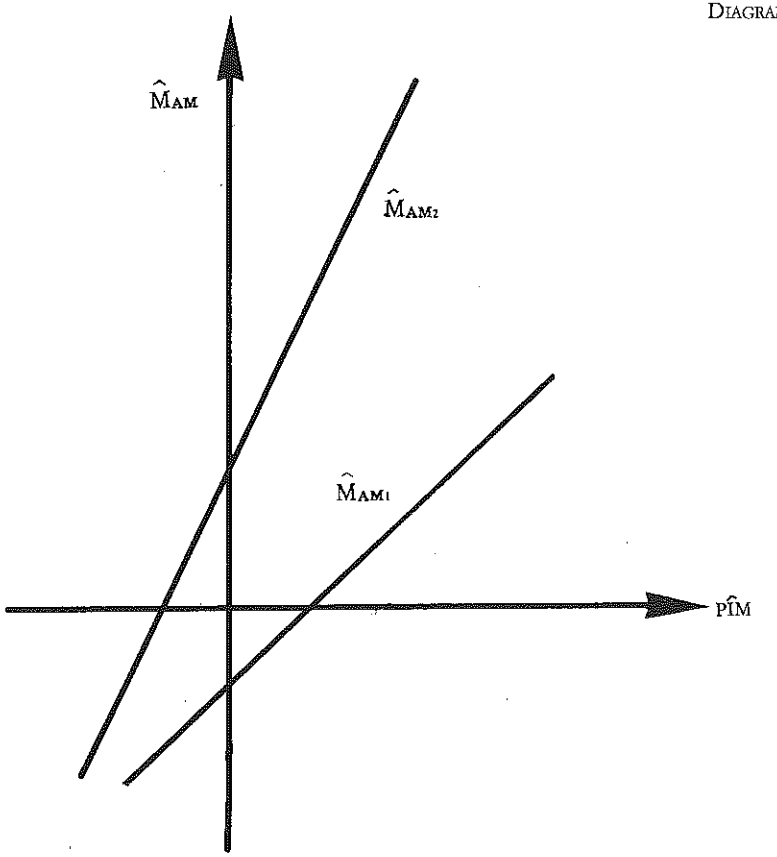


DIAGRAMM 1



crisis in the international monetary system was confirmed by the general abandonment of fixed exchange parities. For these reasons, the variable *DO* must be brought into econometric analyses for periods later than 1971. The weakening of the dollar as a reserve currency and an accumulator of value and the adoption of flexible exchange rates accentuated the speculative component in international markets. This is shown by the fact that the fluctuations in the prices of raw materials traded in international markets became much more marked after 1971. This emerges both from Graph 1 and from Diagram 1. The graph shows that up till 1971 the rates of variation in world industrial production (OECD index) are almost always higher than those for prices of raw

materials (IMF index) while, after 1971, the extent of price fluctuations is 4-5 times greater; moreover, unlike what happened previously, these fluctuations are, for the most part, positive. (Until recently the dollar tended to fall; in addition, as we all know, it is easier for speculation to operate upwards than downwards.) The diagram illustrates these relations from another point of view; it compares the two orders of rates of variations — for industrial production and for prices of raw materials. All raw materials are considered regardless of whether they are agricultural or mineral, and, as an independent variable, the only one used is the demand index. Hence, the relations derived from the comparison are very approximate. However, there is a clear difference between the regression lines for the two periods — the one from 1958 to 1971 and that from 1971 onwards. Both the constants and the coefficients are different:

I) (1958-1971) $\hat{M}_{AM} = -5.1 + 0.9\,\hat{PIM}$

II) (1972-1980) $\hat{M}_{AM} = +9.1 + 2.4\,\hat{PIM}$

(M_{AM} is the price index of *all* raw materials, agricultural and mineral, excluding oil, which is to be considered separately.)

The contrast between the two relations provides a basis for the analysis of the nexus between the short- and long-term variations of prices in the international raw material markets, taking account of the fact that these markets are, as a rule, competitive.

3. Price Variations under Competitive Conditions in the Long Period

It may seem from these considerations that the shift in the function linking the rates of variation in demand to the prices of raw materials depends solely on the speculative factor, which has been stimulated by the weakening of the dollar as a reserve currency. This, however, is only one of the factors explaining this shift. There is at least a second factor which makes its influence fully felt in the long term, but can have a certain effect in the short term too. This is the trend in the cost of production. In reality, the classical proposition that, in the long run, under competitive conditions, price depends on the cost of production still holds good. This because, if the increase in demand causes the price to rise, above-normal profits appear, which induce existing firms to

expand production and new firms to enter the market. (For the classical economists, the essential characteristic of competition is not the large number of producers, but free entry.) A certain time is needed in order to expand production — at least a year in the case of agriculture, and a period which cannot be defined for mining or industry, but, as a rule, more than a year (it is a question of enlarging equipment and plant and installing new facilities.) As production increases, the price tends to fall. All other things being equal, excluding demand, the price tends to fall to its initial level, which covered the cost of production and permitted profits not higher than the normal ones. An inverse process takes place where demand shrinks. The price falls, a certain number of firms suffer losses, and some withdraw from the market. Production declines and the price tends to revert to its level at the start. The process is not exactly symmetrical, since there is even more uncertainty about the time needed for the drop in production to take place.

It is not easy to identify the empirical correlate of the "short" and the "long" period. In agriculture, the difficulties do not seem serious, since, in most cases, the productive cycle is an annual one. Hence, the year is the short term. For the long term, a triennium can reasonably be assumed. Taking account of the fact that, in extra-agricultural activities, decisions on equipment and plant are usually taken once a year at budget time, a similar criterion may be adopted for these activities as well. Hence, in the short-term case, we can take annual data (equations 1, 2, 3, 4 and 5); for the long term, we should use moving three-year averages, both of prices and of the main cost factors, which belong to two classes: labour and means of production.

For the long-term variations of agricultural prices, the following equation may hold

$$P_{A(1)} = a_6 + b_6\, S_{A(1)}/\pi_{A(1)} + c_6\, MP_{A(1)} + d_6\, P_{Ai(1)} \qquad (6)$$

where S_A is the wage in agriculture, π_A the output per worker, MP_A the price index of the means of production, and P_{Ai} — as has been seen — the index of international prices of agricultural products.

For the long-term variations of the prices of agricultural and mineral raw materials traded in international markets, the following equations apply:

$$M_{A(1)} = a_7 + b_7\, S_{A(1)}/\pi_{A(1)} + c_7\, MP_{A(1)} \qquad (7)$$

$$M_{M(1)} = a_8 + b_8\, S_{M(1)}/\pi_{M(1)} + c_8\, MP_{M(1)} \qquad (8)$$

where S, π and MP express weighted averages of wages, output per worker and means of production in the main producing countries. (Prices and wages are expressed in dollars. It should be pointed out that these relations, which use averages relating to different products and countries, can furnish only very general interpretations. If more precise interpretations are desired, disaggregated analyses are needed.)

It is important to note that the means of production employed by the producers of agricultural and mineral raw materials are largely industrial goods. Hence, in the long term, the trend in raw material prices depends both on that of the cost of labour and on that of industrial prices.

4. Variations in Industrial Prices in the Short and Long Period: Theoretical Aspects

In modern industry, competition is the exception. The rule is oligopoly in its three forms — concentrated, differentiated and mixed. In the first of these cases, the firms involved are few and large, and the product is homogeneous. In the second case, the products are similar, but differentiated, and the market is subdivided into a large number of small markets, each of them protected by barriers of various kinds, usually determined by publicity. The third case constitutes a combination of the two preceding cases.

For reasons which I have tried to analyse in different studies (Sylos-Labini 1956, 1979b), prices are determined on the basis of direct costs, to which a mark-up is applied. This, however, does not remain constant over time, especially in markets open to foreign competition. Hence, for manufacturing as a whole, short-term price variations depend, not only on those in direct cost items, but also on those in international industrial prices (the asterisk on the two last variables indicates that international prices must be translated into lire at the prevailing exchange rate):

$$P_i = a_9 + b_9 S_i/\pi_i + c_9 M^*_{AM} + d_9 P^*_{ii} \qquad (9)$$

The relation now indicated, which does not include demand in the explanatory variables, assumes that at the present time firms operating

in the manufacturing sector normally have unused capacity, so that, if demand increases, production can be expanded without a rise in prices. Demand can influence prices only intermittently, when unused capacity falls to a low level in most industries and there are obstacles in the way of imports.

These observations apply to manufacturing industry. It is a different matter with building. In that industry, one cannot speak of unused capacity in the meaning attributed to it in the case of manufacturing industry. In addition, the ground for building which constitutes a substantial proportion of the cost of housing, is not a reproducible good. As a result of all this, prices of housing are affected in the short term by demand and supply, like goods produced in a regime of competition, even if in the long term the scarcity factor tends to cause a systematic increase in the absolute and relative prices of housing; and this is true today as it was in the past.

In the long term, the variations in the prices of goods produced by manufacturing industry also depend on variations in costs. In the long term, however, the costs to be considered are the total ones:

$$P_{i(1)} = a_{10} + b_{10} S_{i(1)}/\pi_{i(1)} + c_{10} MP^*_{i(1)} + d_{10} P^*_{ii(1)} \qquad (10)$$

If it is recognized that the evolution of direct and that of indirect costs are fairly similar, there may not seem to be any great difference between short and long-term variations in the prices of manufacturing products. But that is not so. In fact, the evolution of costs, and hence of prices, in manufacturing industry in the long term would be different if these short-term prices did not depend on costs, but, as is the case in a competitive regime, on demand and supply.

Let us consider a single individual market in which, as is the rule, conditions of oligopoly prevail. In the short term, if demand increases, production will rise without an increase in price, assuming that, in general, there is unused capacity and that it is too risky, for each of the oligopolists, to try and exploit the situation by raising prices. Vice versa, if there is a fall in demand, there is a proportionate drop in production, but prices do not decline. Prices will fall only if costs decline, and costs, generally speaking, decline when the prices of raw materials fall or when money wages increase less than productivity. However, for reasons into which I cannot enter here, the prices will fall much less than proportionately to costs (Sylos-Labini, 1979b). Moreover, — and this is a point of fundamental importance — wages normally increase at a rate equal to or

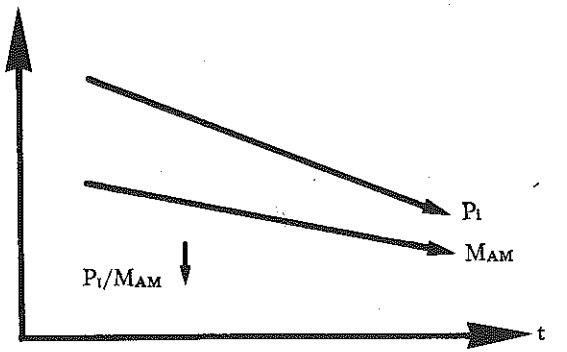
higher than the rate of increase in productivity (owing to the bargaining power acquired by the labour unions which, partly at least, reflects the power acquired by the oligopolistic firms in the markets for the products). The result is that the unit cost of wage labour either remains constant or increases (and falls only in exceptional cases). The short-term variations in costs and prices condition the long-term ones. All things considered, costs and hence prices remain constant, or, more often, tend to increase, contrary to what happens in competitive conditions. For, in generalized competition — competition in the product and labour markets — money wages tend to remain stationary or to increase less than productivity. Parallel with this, the prices of means of production — raw materials, intermediate products and capital goods — tend to fall. As a result, the long-term price trend will be downwards, as Adam Smith had maintained with reference to the conditions of his time (Sylos-Labini, 1976). According to Smith, however, the fall in prices, in generalized competition, tends to be faster for manufactures than in the raw material sector (for both agricultural and mineral products), since the increase in productivity is faster in manufacturing. Indeed, the prices of minerals can even show a rising trend if the exhaustion of known mines is not offset by the discovery of new ones. As for agricultural raw materials, at least vegetable ones, prices tend to fall, but more slowly than those of manufactures, since the possibilities of subdividing and specializing labour in agriculture are less than in manufacturing industry.

5. Empirical Aspects

According to Smith, then, in conditions of generalized competition, we must distinguish two sectors: the raw materials one and the manufacturing one. In both sectors, prices tend to fall, but more slowly in the former than in the latter. And this is precisely the picture offered by the evolution of prices during most of last century, a period when competition was the most frequent form of market in both sectors. In stylized form, the evolution of the two categories of prices is the one indicated in Graph 2; the period under reference goes from the beginning of the nineteenth century to 1897, a year in which the long-term fall in prices came to an end. Over the whole period, though

amidst wide fluctuations, the ratio between the two categories of prices varied "against" industrial prices ($P_I/M_{AM} \downarrow$).

GRAPH 2

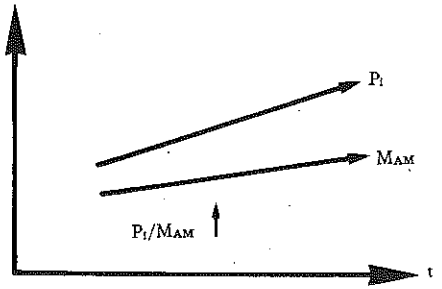


In the present century, the situation has changed. It would seem that the critical period was that of the last ten or twenty years of the nineteenth century, when the process of concentration was speeded up and, in the more advanced countries, large limited liability companies, trusts and cartels came to the fore, especially in finance and industry. In the industrial sector, what is called the competitive regime gave way to the one termed oligopolistic. As a result, a dichotomy between the two sectors emerged. In the industrial one, the prevailing market form became oligopoly (in the first stage, concentrated oligopoly, and, in the second one, with the commercial revolution and with the spread of the so-called mass media, differentiated and mixed oligopoly). In the agricultural and mineral raw materials sector, on the contrary, the prevailing market form was the competitive one, even if in certain cases companies of a monopolistic type are operating.[1] However, when it starts to coexist with a sector which is no longer competitive, the raw materials sector finds itself in a different situation, and, from that time, the evolution of prices has also been different. In the short run, prices

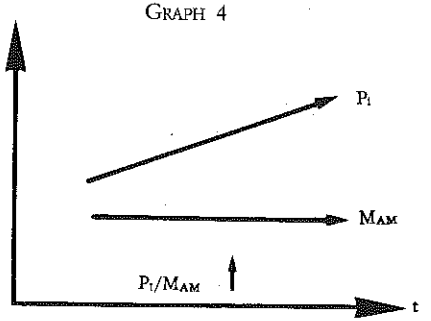
[1] These cases are to be found only in mining. In agriculture, one can note large companies with transnational interests and various forms of vertical integration, which obtain considerable advantages in terms of efficiency and, when operating in backward countries, succeed in obtaining monopsony earnings in the purchase of raw products; however, except in particular cases, these companies are not in a position to control sales prices in international markets.

have still fluctuated, depending on the variations in demand and supply, but, in the long term, as can be seen from equations 6, 7 and 8, the price trend has been stationary, and, more often than not, upwards, since the prices of part of the means of production, which are industrial products, tended definitely to rise. As a result, the evolution of the two categories of prices in the present century has usually been the one shown, in stylized form, in Graph 3 or that illustrated in Graph 4. (It must be borne in mind that the years from 1929 to 1938 were overshadowed by the Great Depression and formed a kind of intermezzo. We shall not discuss this when we examine the fundamental trends of the two categories of prices.)[2]

GRAPH 3

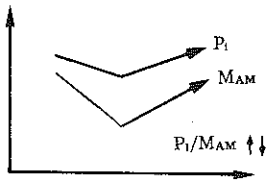


GRAPH 4



Thus, with reference to the present century and, more precisely, to the period beginning in 1897 and ending in 1971, it may be said that, for the prices of raw materials, the evolution of curve M_{AM} in Graph 3 has

[2] In that decade, still in stylized form, the variations are those shown in the following graph (the minima are the levels reached in 1933):



It should be noted that the drop in industrial prices (of about 20%) should be ascribed not to the drop in demand but to the drop in costs, which in turn is caused by the fall in the prices of raw materials (50%), and it is here that demand has been operative.

been the one noted in those countries such as the United States which produce both industrial goods and raw materials, whereas the evolution shown in curve M_{AM} in Graph 4 has been the one relating to the prices of the raw materials produced in backward countries. In both cases, the ratio of industrial prices to raw material prices increases or varies "against" raw materials. But, in the former case, the increase is less, and in the second it is greater. As regards the reasons for the increases in industrial prices, we have already discussed the point. In industrial countries, the prices of raw materials increase because the prices of the means of production supplied by industry increase, whereas in the past century these prices tended to fall. At the same time, wages rise at a rate similar to, and even higher than, that of productivity, since in the sectors producing raw materials as well, labour is relatively scarce, and the trade unions have achieved a considerable bargaining power. Thus, in the United States from 1897 to 1971, prices of raw materials have increased, even if to a lesser extent than industrial prices; as a consequence, the ratio P_I/M_{AM} has increased by about one third (during the Great Depression, as we have seen, that ratio increased sharply at first and then decreased). Vice versa, again from 1897 to 1971, the prices of raw materials produced in backward countries (especially those in the tropics) remained practically stationary. Presumably because the increase in the prices of the means of production supplied by industry has been offset by the fall in the cost of labour: $\uparrow \hat{MP} + \downarrow \hat{S/\pi} = 0$. Such an evolution of the cost of labour is to be imputed to an increase in productivity, with stationary money wages. The stationary level of wages, in its turn, is to be ascribed to the situation which A.W. Lewis (1954) sums up in the hypothesis of an economically unlimited supply of labour. Indeed, it seems that in backward countries the worsening of the terms of trade for these countries began as early as the 'seventies of the past century. Prices continued to decline, as in the preceding decades, but those of industrial products declined more slowly than those of raw materials, since in backward countries producing raw materials, wages continued to remain stationary, while in developed countries they started to increase at a brisk rate as a result of the transformations in the structure of production and in the labour market.

I have dwelt at such length on this matter because in my opinion this is essential for an understanding of the trends underlying all prices.

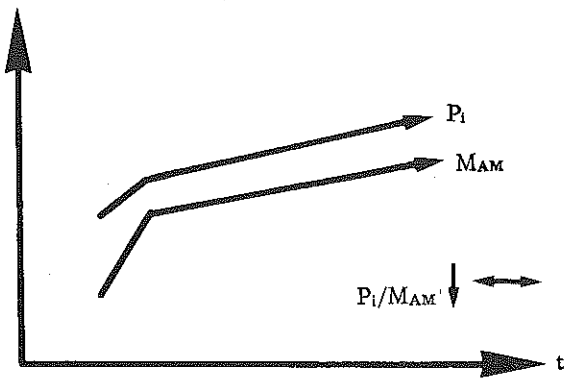
If we term inflation a process characterized by a systematic increase in prices, we must call deflation the opposite process and we must say that the past century has been dominated by a long process of a deflationary type. In the present century, the picture has been reversed, even if, up to 1971, the inflationary process in industrialized countries had not reached the extremely high rates which it did after that year. It is important to understand why.

6. The Evolution of Prices after 1971. The Crisis of the International Monetary System and the Action of the Oil Cartel.

The evolution of industrial and raw material prices underwent a profound change after 1971 and, in particular, after 1973. In 1971, there was the disengagement of the dollar from gold and the end of the system instituted by the Bretton Woods Agreements. One of the consequences was the intensification of the burst of speculation in raw material markets to which we have already referred. This stimulation (which operates far more upwards than downwards) accentuated the world-wide inflationary process which had previously been under way. But the most vigorous acceleration of this process flowed from the explosion of the prices of raw materials and, in particular, of oil. Still in stylized form, here is the evolution of raw material prices, including those of oil, from 1971 to 1980. As readers will be aware, the most violent spurt in the prices of raw materials took place in 1973.

In order to understand the reasons for this burst of inflation, we must take account of three circumstances: 1) the 1972-1973 biennium was a period of rapid growth in all the industrialized countries and hence one of rapid expansion in the demand for raw materials (see Graph 1); 2) 1973 saw the outbreak of the Arab-Israeli war which disrupted the flows of oil between Arab and industrialized countries; 3) in the same year, the United States liberalized imports of oil, thus helping to accelerate the expansion of total demand for this fundamental source of energy. These circumstances must be seen in the framework of the crisis of the dollar as a reserve currency, a crisis which had made possible the intensification of speculative pressures, precisely in periods of expansion in the world demand for raw materials, including oil. In particular, as regards oil, the price, before that tremendous surge, had remained

GRAPH 5



practically stationary for a number of years. To be more precise, from 1950 to 1971 it had increased, but to a moderate extent, and independently of the fluctuations in demand. This evolution is characteristic of a commodity produced in conditions of oligopoly. None of the large oil multinationals considered individually was inclined to raise the price for fear lest the rivals should not follow suit. The fact is that in olygopoly as a rule the price is varied only if the cost varies. But the costs of production of oil, which are largely imputable to the expenses of prospection and to plant designed to last for a considerable time, varied very little and were already on an average substantially lower than the price. In addition, there were political reasons which prevented the large companies from reaching agreement to form a genuine cartel. Among other things, there had already, in the United States, been a lawsuit against the agreement reached between a certain number of large companies, mainly American ones, after the first world war. (As to the oil-producing countries, even before 1973 there was a cartel between these countries, but it proved of very slight effectiveness in practice.) All these obstacles were overcome in 1973 owing to the circumstances recalled above, and in particular owing to the Arab-Israeli war which had led the Arab countries — which had already become stronger in the international sphere — to coalize in order to use oil as a weapon of political pressure. For their part, the large companies had no reason to oppose the Arab countries' action. Indeed, they had every interest to support it by placing at the Arabs' disposal their international commercial network; thus, the profits of these companies

increased enormously after the increase in the price of oil. It must, however, be recalled that, while it is true that the great surge took place in 1973 and continued in 1974, back in 1971 and 1972, in connection with the crisis in the international monetary system, the price of oil had been raised by 30 and 15% respectively.

Hence, in the period after the second world war and up to 1971, the evolution of the price of oil is that characteristic of a commodity produced at stable costs and sold in conditions of oligopoly. After 1971 and subsequently in an unmistakable manner after 1973, it is that of a commodity sold in conditions of monopoly or, more precisely, in conditions characterized by a monopoly-type cartel. In effect, in monopoly (as Ricardo had already noted), price depends, as in a competitive regime, on demand and supply. In conditions of competition, however, that is true solely for the short term. In addition, in monopoly, unlike what happens with competition, the supply does not vary freely because of the action of a large number of producers, but is more or less effectively controlled by a single decision-making centre and it is controlled precisely with a view to making the highest possible total profit. However, two qualifications must at once be made: 1) the control may be effective if the demand is rigid for a relatively large part of the curve; 2) the degree of elasticity of demand does not remain stable over time. If, in a given period, it is low or very low — as was precisely the case and, to a fair extent, is still the case for oil — as time goes by, it may increase thanks to savings in oil consumption and to the process of dynamic substitution — both stimulated by the high price. The increase in the elasticity of demand and the difficulty of controlling supply may gradually reduce the bargaining power of the cartel. Still with reference to the particular case of oil, we must bear in mind two factors: the objective pursued by the producer countries of keeping the "real" price of oil (the ratio of nominal oil prices to prices of manufactured goods) at least stable over time, and the comparison between present yield (immediate extraction of the oil) and the anticipated yield (delayed extraction).

In general, we may then speak of an "oligopolistic" phase and of a "monopolistic" one in the international oil market. In fact, for many decades oil has been produced in conditions of oligopoly. And the large companies have always sought to reach agreement for common action in the different sectors of activity: production, transport, wholesale trade, processing and, of course, prices. There has always, that is to say, been a monopoly-type component. We may say that, after 1973, this component was strongly accentuated for reasons of an international nature, with, as a result, a modification in the evolution of prices.

7. Prices and Wages. The Double Dichotomy

The arguments developed in the previous sections therefore lead us to believe that, at the present time, cases in which demand affects prices have become more and more rare. The major cases are three in number. 1) If domestic demand increases, there may be a rise in the prices of agricultural products and raw materials produced at home, provided the other variables (supply and international prices) do not work against them with equal or greater force. 2) If there is an expansion in most of the industrialized countries and an increase in the world demand for raw materials, costs will rise and, hence, as an indirect result, so will the prices of industrial products, provided there are no offsetting pressures arising from other variables. 3) If the form of the market is changed, for example from oligopoly to monopoly, the increase in world demand will reinforce an increase in prices, which, but for this change, would not have taken place, or would have been much more modest and of a relatively short duration.

Vice versa, in the markets for manufactures as a rule demand will not directly affect prices. It may drive them up only in individual industries or even in manufacturing industry as a whole in periods of rapid expansion when unutilized productive capacity shrinks. However, this holds good for countries with a high tariff wall. (For the others, an increase in demand leads to a rise in imports.) Otherwise it applies in an international boom. Such situations therefore are by no means frequent. As a rule the pattern is the one outlined above. In any case, the increase in domestic demand tends to swell imports. Such an increase can give rise to a foreign deficit of such magnitude that the currency falls in value *vis-à-vis* other currencies. In this way, the prices of imported finished products rise, as do those of raw materials, with as a consequence an increase in costs and in the prices of industrial products.

We must therefore distinguish between two major categories of prices — those of agricultural and mineral products and those of manufactures. The alternative to an analysis of the "general price level" is not necessarily, therefore, the analysis of individual prices; if there

are valid theoretical reasons, the alternative may be the analysis of wide categories of prices; in the case which we are considering, only two of them. As already suggested by me many years back (Sylos-Labini, 1956, pp. 16-7 and 167), the dichotomy must be related, not only to the market forms, but also to the technical conditions of production and to the type of goods. Arthur Okun (1981) has recently again put forward this dichotomy, relating it rather to characteristics of the goods (whether homogenous or differentiated) than to the market forms, with producers who are "price takers" or else "price makers" — a dichotomy which, however, presupposes different types of market.[3]

As we have seen, for manufacturing taken as a whole, foreign competition acts as a brake on attempts to pass on to prices increases in costs (cf. equation 9). Referring to the well known distinction between protected markets and those exposed to foreign competition, we must assume that, in protected markets, the mark-up on direct costs remains relatively stable, even when it declines in non-protected markets, except where there is a devaluation in terms of foreign currencies. In addition, it is more probable that demand has some influence on prices, even if only intermittently, in protected markets rather than in exposed ones. We can assimilate the sector of consumable services to the protected industrial subsector.

For goods and services, therefore, the dichotomy in question holds good. The labour market, taken overall, has characteristics close to those of the goods and services sector whose prices are hardly affected by variations in demand. However, it is essential to distinguish between manual labour (workers) and intellectual labour (employees). In the former case, variations in demand — expressed, inversely, by those in unemployment — have some, if only a limited, effect on wages, while in the latter case the effects are negligible or nil.

Let us go deeper in to the matter. In the last century, wages were markedly flexible, in the sense that they responded to variations in the

[3] The dichotomy indicated here not only coincides with the one in Okun, but corresponds as well to the one put forward in 1943 by MICHAL KALECKI (prices determined by demand and prices determined by costs) and, more recently, by Sir John HICKS (1965, 1974), who distinguishes between "flexprices" and "fixprices", by Lord KALDOR (1976) and by J. ROBINSON (1977). It should be borne in mind that price rigidity *vis-à-vis* demand may depend, not only on the structural conditions referred to above connected with economic and social evolution (concentration of production and differentiation originated by advertising), but also by public regulation, which may be modified without too much difficulty, but which is often introduced when structural conditions do not allow market forces to function automatically.

demand for labour. At that time, at least as a first approximation, the Phillips relation normally applied to short-term fluctuations. In the present century, and especially after the first world war, that relation became insufficient. As a result of the power acquired by the trade unions (at least in democracies), it became necessary to include variations in the cost of living in the wages equation.[4] In the last ten or fifteen years, it became at least useful to include in addition a variable expressing the intensity of trade union action, while the unemployment variable gradually becomes less important, and, in any case, has to be corrected in order to make account of multiyear contracts, wage increases arranged beforehand and those mechanisms such as subsidies and unemployment relief which attenuate the consequences of variations in unemployment on wages. In other words, the Phillips relation, like all economic relations, is historically conditioned. In the past, unemployment constituted an important factor in "disciplining" workers. Nowadays, with the creation of the mechanisms under reference and with the increase in family incomes — all of which are the result of economic growth — to a not inconsiderable extent unemployment has lost that distressing effectiveness. In any case, the remaining effectiveness of unemployment takes the form of its influence only on short-term wage variations. On this point, I agree with the monetarists.[5]

Summing up, the effects of variations in the demand for labour on short-term wage variations have now become very uncertain. I advance the hypothesis, which needs to be verified, that in present conditions variations in unemployment up to a critical threshold have either very slight effects on wages, or even none at all. The effects may be substantial only after unemployment has passed a certain critical threshold.

Whatever the cause, a wage increase can influence prices in the first place through costs (if the increase is greater than that in productivity). This applies to industrial products. As regards agricultural products and raw materials produced domestically, the increase in wages may lead to an increase in demand (if employment does not fall in

[4] "The importance of $\dot{P}$ as an explanatory variable has greately increased compared with the pre-war period (...). This indicates a substantial movement in the direction of a one-to-one relation between changes in prices and changes in wages. This is an extremely interesting change". [P is the rate of variation in the cost of living]. LIPSEY (1960), p. 26.

[5] In backward countries where the supply of labour is unlimited in the sense used by A. LEWIS (1954), in the long run the increase in wages is held down by the pressure of unemployment, which however in practice merges into employment in the traditional sector.

the same proportion or even more than proportionately). And the increase in demand may have the effects indicated above.

Since no one doubts that the variations in the costs of living influence those in wages — with a greater or lesser intensity depending on the strength of the trade unions and of the different institutional or organizational patterns — all variations in prices included in the cost of living cause variations in wages. Among these factors, the prices of public services and administered prices call for special consideration. It may happen — and on several occasions it actually has happened — that, in order to reduce the public deficit, which is regarded by certain schools of thought as the main cause of inflation, prices of public services and indirect taxes have been raised, with the result that inflation is aggravated either directly or indirectly through increases in wages.

On short-term wage variations, then, the influence of demand is usually slight, and it is even slighter on the variations in private employees' salaries, and practically nil in the case of civil servants. It should be clear that the flexibility in question is only that relating to variations in demand: earnings are not at all rigid in relation to the cost of living, and the prices of manufactured goods are not at all rigid in relation to the costs of production, and, in particular, to direct costs even if this flexibility is high where these costs increase and low where they decline.

All this applies in the short term. Undoubtedly, trade union action and the support of various kinds afforded to the trade unions by the public authorities have helped to create a systematic increase in money wages. In the long term, there are two other factors to be considered — the increase in productivity on the one hand, and, on the other, in countries with a relatively high and rising per capita (and hence family) income, the slow but growing reluctance to accept manual jobs, and in particular repetitive and in any case unpleasant types of work. This appears to have only partly remedied by the immigration of foreign workers from poor and backward countries. As a consequence, the relation of workers' earnings (wages) to those of employees (salaries) has been varying in favour of the former. Since the whole system of long-term prices is crucially dependent on the prices of agricultural and industrial commodities, this systematic upward pressure, both absolutely and relatively, as regards wages has injected into the system a further element of inflation.

8. Inflation and Demand. Five Propositions of Monetary Theory

The double dichotomy, which has played a fundamental role in the analysis, appears neither in the neo-classical models — including those of the monetarists — nor in the Keynesian models. The former, which presuppose generalized conditions of competition and introduce special hypotheses regarding the evolution of costs, assume flexibility of prices and wages. The latter, on the contrary, assume rigid wages and prices in relation to demand up to the level of full employment. There are therefore three groups of economists: 1) those who assume flexible prices in relation to demand, among them being the monetarists; 2) those who assume rigid prices, among whom are the Keynesians; and 3) lastly the economists who feel that it is essential to distinguish between different categories of prices and wages, and among these is the writer of the present study. The classification is schematic, but, I trust not misleading. Thus, Friedman (1968, p. 103) warns us that the fixing of a legal minimum wage and the action of the trade unions drives up the "natural" level of unemployment which tends to assert itself in the long term. But in the short term he does not consider any important limit to flexible *vis-à-vis* demand, either for wages or for the prices of commodities.[6]

For the old-style monetarists, the link between the amount of money and demand was given by the velocity of circulation, which was taken to be relatively constant. For Friedman and the new monetarists, however, the value of this velocity is not stable, but the function of the demand for money *is*. This, he considers, ensures a fairly stable link between money and income.

A monetary expansion is therefore translated, after a certain interval, into an increase in money income, owing both to an increase in real income to a rise in prices. However, according to Friedman, that is true only in the relatively short run. In the long run, the growth of income and the level of employment depend on real factors. Monetary policy is powerless. Thus, if it is desired to accelerate growth and reduce unemployment by reducing interest below the normal or natural level,

[6] See the critical observations of Franco Modigliani and the replies (which are quite unsatisfactory) by Friedman in the debate reproduced in MODIGLIANI-FRIEDMAN, 1977, p. 13; the criticism had been put forward by MODIGLIANI (1977).

such a reduction will not last long (less than a year), mainly because the expansion in the amount of money following the reduction of the interest rate will lead to a rise in prices. This will be bound to cause an increase in interest, which will revert to its initial level and will even tend to exceed it. The reduction in the level of unemployment, too, which is initially assumed to be at the normal or "natural" rate, will not last for long, owing to a sort of comedy of errors based on expectations of wages and prices. To start with, real wages fall, making it possible to reduce unemployment. But they will soon go back to their original level, as will unemployment. That could be kept below the initial level, which *ex hypothesi* is also the "natural" level, only at the cost of a gradual acceleration of the inflationary process.

Now it is possible to accept all the three propositions put forward above (a relatively stable link between money and income, weak direct long-term effects of monetary policy on interest and unemployment) without necessarily accepting the specific arguments which Friedman adduces to justify them or two other fundamental monetarist propositions, i.e.: 1) variations in total demand bring with them variations in the same direction of prices in a proportion which is all the greater, the longer the period considered; 2) the link between the amount of money and income points mainly in the direction M→Y.

In principle, the first proposition is admissible in an economy in which prices, at least in most cases, are flexible *vis-à-vis* demand. It does not apply in an economy such as those of industrialized countries at the present time, in which there has appeared and taken root the double dichotomy referred to above. In such an economy, in which the sector of prices and earnings which do not react (or react only slightly) to variations in demand constitute the main share in terms of income and employment, a restrictive monetary policy will have as its main consequence the reduction of investments and employment; the downward thrust on the rate of increase in earnings and in prices cannot but be very limited. This, in my opinion, is the main reason why, in modern industrialized economies, the social cost of a restrictive monetary policy proves so high and the results so slight.

For the sake of clarity and indeed of honesty, we must strongly emphasize the fact that usually the social cost can not but be very high. The truth is that, precisely because of the mechanisms and stock absorbers referred to in section 7, unemployment can have serious effects on wages — much more than on salaries — only after it has crossed the critical threshold discussed above, or after a *massive and prolonged* increase, an increase which can comply with this definition if it depends not only on dismissals carried out by firms reducing their output, but also on firms which go bankrupt. The resulting drop in earnings and prices, or, more probably, the drop — also a substantial one — *in the rate of increase* in earnings and prices will take place only after the trade unions have received a crushing blow (cf. Kaldor, 1980). In the ultimate analysis, this becomes the meaning, which is not at all technical, of the delays and "lags" to which Friedman refers. The paradoxical aspect of the matter is that, if the monetary squeeze is kept in force for a sufficiently long time and there is a massive rise in unemployment, the resultant fall in the rate of price increases is *not* determined by variations in the demand for products (as some monetarists contend), but by the fall in the rate of cost increase, a fall which is in turn caused by the drop in the demand for labour. In the labour market, however, there is no competition. If anything, there are the conditions formalized in models of bilateral monopoly.

Only in two cases can the social cost of a restrictive monetary policy, at least as regards its duration, be somewhat less serious. The first is the case of a country producing a large proportion of the agricultural products and raw materials which it uses in its industry. If a restrictive monetary policy is adopted, the economy sags (on this all economists are agreed). This decline will lead to a fall in the prices of agricultural products and raw materials. Through the cost of production, the prices of industrial products too will tend to fall, though to a limited extent (for raw materials form only part of the cost) and in a smaller proportion (Sylos-Labini, 1979b). All this is on the hypothesis that wages grow *pari passu* with productivity, and hence that unit cost of labour does not vary and that there is no change in the prices of public services.

The second case is one in which the restrictive policy is followed by all industrialized countries; the fall in world demand for raw materials will drive the prices down, and this fall will gradually tend to depress the prices of industrial products, always supposing that there is no change in the unit cost of labour. It should be stressed that, more recently, this hypothesis has very rarely been fulfilled, so that there has not been a reduction (even a limited one) in prices, but only a slower increase. It should also be emphasized that the slackening of growth caused by the restrictive policy may have negative effects on productivity, which constitutes the denominator of the cost of labour.

In general, monetarism cannot admit that cost inflation can take place; and, in a country which imports a large part of its oil and raw materials, the upward thrust of the prices of finished products caused by increases in the prices of these goods must obviously be regarded as a particular case of cost inflation. A similar consideration applies to pressures on prices caused by wages, when wage increases depend on rises in the cost of living are not due to demand. The monetarists admit the existence of cost inflation only to the extent that money makes it possible, that is, allows costs and prices to increase, so that it would still be the monetary pressure which was decisive. That is not the case. If, with pressure flowing from costs, the quantity of money is reduced, cost inflation nevertheless takes place, but the level of activity is reduced. That is, what happens is a variant of the well known present day phenomenon — but one unknown in the past — which is called stagflation and which, in certain cases, such as the one under consideration, should be called "recession with inflation". An inflation — it is worth repeating — which within limits can really be restrained by a ferocious monetary squeeze and a prolonged depression, marked by contractions of production and by bankruptcies.

This analysis brings out an important lesson.

According to the monetarists, when the real level of unemployment approximates its "natural" level, labour costs per unit of product and prices tend to remain stable; in present day conditions, however, the "natural" level of unemployment cannot but be so high as to reduce the power of the trade unions to a minimum, a power which to a considerable extent is based on social transfer expenditures and on public measures of protection. Such a level, which can be tolerated for a long time under a dictatorship, may prove socially and politically incompatible, except for limited periods, with democratic patterns, which include in their essential institutions genuinely representative trade unions. However, this means that, if the trade unions and political parties which support them more directly wish to avoid dangerous reactionary pressures, they must learn how to control the dynamics of wages and social expenditures — which include those for rescue operations — in such a way as to reduce the temptation to have recourse to policies capable of raising actual unemployment to the level, which cannot be defined but is certainly dramatically high, of "natural" unemployment.

9. The Interpretation of the Money-Income Nexus

The most controversial proposition sustained by Friedman is the one — referred to above — which says that the link between amount of money and income is mainly in the direction M→Y, where *M* is the quantity of money, often indicated by M_1, and is the sum of what is called monetary base in the hands of the public (MB) and credit money in the strict sense of the word (demand deposits: DD); and, since, according to Friedman, there is normally a very close relation between MB and DD, it can be said that the main causal nexus is MB→Y. Of the many empirical indications in favour of this interpretation, there is, it is argued, the lag, usually put at between 6 and 9 months *(post hoc, ergo propter hoc)*. Indeed, in one of his many writings (1970a), Friedman went so far as to affirm that, at an early stage, the variation in money income is due almost exclusively to a variation in real income ($M \rightarrow Y_R$) since, initially, prices vary "imperceptibly"; "the effect on prices becomes manifest, on an average, after other 6-9 months", so that, between the variations of *M* and the variations of *P* as a whole, some 12 to 18 months pass. This is why, says Friedman (1970), it is so difficult to stop an inflationary process.[7] Every time an economist has raised his voice in criticism of this interpretation, Friedman, citing some writing of his, has shown that he has always recognized that, if there is a link M→Y, there is also a link Y→M. However, in the end, he invariably concluded that the main link was the first one, and that M, or, in particular, MB is an exogenous variable, that is, one determined, at least as a rule, by autonomous decisions of the central bank.

This thesis, as formulated by Friedman, is unacceptable, even if it must be recognized that critics such as Kaldor (1970) have gone too far in defence of the opposite view. To put the problem in its proper focus, we must consider not only the relations of cause and effect, but also the

[7] The empirical indications of these lags are, on Friedman's own admission, extremely uncertain and ambiguous, to the point that various economists (of whom I am one) are convinced that these delays are a myth. Nevertheless, the lags hypothesis has played an important part in the practical applications of this doctrine. Considering the effects, in certain countries such as England of restrictive monetary policies (disastrous on income and employment and slight on prices), it can be said that this doctrine would long have been discredited, but for this hypothesis. The fact of having postulated these lags — which are not short and are of varying length — has enabled the monetarists to proclaim: clench your teeth, wait and see. See in particular FRIEDMAN (1969).

reactions, whether they be purely mechanical or, on the contrary, discretionary. Hence, three are the cases, which may be expressed in symbols thus: M→Y, Y→M and Y⇄M. In the third case, the reactions of *M* on *Y* may be of varying intensities. An idea of this type may be found both in Friedman's writings and in those of his critics, but it is not clearly or distinctly expressed, and in any case it does not receive the emphasis which it deserves. The emphasis is placed either on the first relation or on the second; the third case is practically ignored. The fact is that a systematic analysis is needed of the reasons why the monetary base or deposits are created. Such a creation depends on the stimuli coming from business, which needs money for its activity, including the reimbursement of loans and the settlement of foreign transactions and from the Treasury. There is in addition another particular case where the autonomous or discretionary element seems actually to be only one: the purchase and sale of public bonds by the central bank. But even such an operation is not unrelated to the other two reasons, since the sale of bonds (let us consider that case), other things being equal, drives interest up and hence tends to act as a brake on the creation of money for business. In any case, the purchase and sale of bonds constitutes the operation in which the autonomous decision-making element clearly prevails. When money is created to meet the demands of business and of the Treasury, the stimulus is external to the banking system. The question is how do the banks respond to these demands? If they are accommodating and respond, as it were, passively, sequence Y→M prevails; if, on the contrary, the response is active, in a restrictive or expansionary sense, sequence M→Y prevails. In addition, there are all the intermediate possibilities. Given the contiguity of the Treasury and the central bank, the creation of money on behalf of the State may be equated to a discretionary decision, so that in this case sequence M→Y tends to prevail (the extreme case is that of a war economy). When on the contrary the most vigorous thrust comes from business, sequence Y→M prevails. This is the sequence theorized by Schumpeter; and it is surprising that, in his works, apart from some marginal quotations, Friedman ignores the great theorist and historian of cyclical development. Anyone who knows Schumpeter realizes full well that the variations of *M* when they are stimulated by *business*, may take place *before* a variation in income. The fact is that the sequence Y→M is particularly important in the case of bank money, i.e. demand deposits (DD), which are affected to a limited extent and indirectly by the

discretionary component discussed above and are on the contrary affected much more strongly by a stimulus coming from business. This fact would not weigh too heavily if DD always varied in line with MB. Although this is usually the case, those two quantities do not vary together precisely in crucial periods, as for example in the decade from 1929 to 1938. On various occasions, Friedman has maintained that the Great Depression should be attributed "in great part" to the errors of monetary policy and in particular to the fact that the Federal Reserve System "forced or permitted a sharp reduction in monetary base" (Friedman, 1968, p. 97). It is on this ground that Friedman (1970a, pp. 17 and 8) goes so far as to affirm: "If Keynes had known the facts about the Great Depression, as we now know them, he could not have interpreted that episode as he did", with the consequence that "if Keynes were alive today, he would no doubt be at the forefront of the counter-revolution [in monetary theory]".

Now, as Kaldor has pointed out (1980), the affirmation regarding the reduction of monetary base does not square with the facts. This can be seen even from the statistical data presented by Friedman and Schwartz (1963, pp. 803-4). Monetary base remains constant from 1926 to 1929 (in the very period of most rapid expansion) and increases by 15% from 1929 to 1932. Vice versa, bank money fall, in the second period, by 30%. (The ratio of M to MB, then, crumbles from 4.0 to 2.4 in 1933. The contraction of M depending on that of DD expresses essentially that phenomenon which Schumpeter defines as the "autodeflation" of the business system, a phenomenon which implies precisely the sequence Y→M.) In his reply, Friedman (1970b) ignores Kaldor's criticism, which is well founded and is very serious.

A final critical observation is called for. Friedman makes a drastic separation between the long and the short term. Monetary policy is effective in the short term, but impotent in the long term (even if it can cause damage in the form of a persistent inflationary process). In the long run, the real phenomena — growth of income and level of employment — do not depend on money, but on other factors which, as it happens, are real ones, which Friedman refers to in extremely vague terms. Now such a separation is analytically deceptive. As we have seen in the preceding subsections, the prices of the various categories do not vary with the same speed either in the short or in the long run. In particular, the variations in the ratio of industrial prices to prices of raw materials influence income distribution, and the variations in this distribution influence the speed and the type of accumulation and

growth (Sylos-Labini, 1979b). And if wages grow more rapidly than productivity, it is not only prices which vary, but also income distribution, with, again, effects on accumulation and growth, and hence also on the level of employment. In fact, the increases in the prices of raw materials (including oil) have indirectly aggravated clashes of interest between industrialists and workers, and, more generally, between producers of raw materials and the other two categories of subjects. This is a trilateral conflict which, when the raw materials are produced in the third world, takes on international dimensions (Sylos-Labini, 1979b p. 18). This conflict helps to fuel the inflationary process, as should be clear from all the preceding analysis (see also Rowthorn, 1980); at the same time, this conflict has contributed to slow down the rate of growth in developed countries.

10. The Reform of the International Monetary System

The decisive errors of monetarism, however, are the ones discussed above. Two of them in particular. The first consists in having minimized the sequence Y→M; the second, in the assumption that as a rule prices and earnings are flexible *vis-à-vis* variations in demand. Anyone wishing to realize the real meaning of flexibility in prices need only take a look at the graph on p. 40, from which it clearly emerges that, in the international raw material markets, fluctuations in demand are accompanied, without dubious delays, by fluctuations in prices. And anyone wishing to be convinced that industrial prices and wages are *not* flexible, in the sense that they do not respond, or respond only very irregularly, to variations in demand, is invited to make a graph of the rates of variation in production and those in prices and wages in industry in the main developed countries. As to variations in salaries, the relations with variations in demand are extremely limited, and, in most cases, inexistent.

We should be quite clear about this. The idea, which is as old as economic theory, that a fall in demand can lead to a fall in prices is not wrong. Only, it is valid in the short run and in conditions of competition which, among other things, presuppose the homogeneity of the products. In the past, these conditions were the rule, while nowadays, in industry, they are the exception. At the present time, these conditions

can be found in many agricultural products and in certain types of mineral products. Even where monopoly-type conditions prevail, demand is relevant as regards variations in prices, but in a different way.

Only in certain countries and in certain conditions — as has already been noted — can variations in demand have relatively wide-spread effects on prices, and hence a restrictive monetary policy may have a certain degree of effectiveness. It is no accident that, in the United States, where monetarist theory was born and developed, demand proves to have some influence, though a modest one, on the prices of industrial products (cf. Gordon, 1975 and Sylos-Labini, 1979a, p. 159). The fact is that the United States produces a considerable part of the agricultural commodities and raw materials which it needs. Moreover, the American economic situation influences the international one and hence the world demand for raw materials. However, monetarism has not spread in the United States alone. A factor operating in favour of this school of thought has also been the rapid expansion in all industrialized countries of the public deficit, an expansion which in its turn has been determined by social pressures which, thanks to the spread of a certain crude type of Keynesianism, have enrolled the active backing of the most differing political parties. Now there is no need to be a supporter of monetarism to recognize the damage which a large and growing public deficit may cause the economy. Given certain conditions, such a deficit can make an inflationary process worse, not only because it can contribute to the expansion of the quantity of money and to price increases (especially in the case of agricultural commodities and raw materials), but also because, by increasing the demand for all products including imported ones, it causes a balance of payments deficit and pushes foreign exchange rates up, and hence also the prices of all imported goods. In addition, a growing public deficit involves, as a rule, a growing issue of securities to pay for the public debt. Sooner or later (but not always and not necessarily, as the monetarists seem to believe), this leads to a crowding out of part of private investments. For, where the public deficit is not financed by taxes or loans, the variations in monetary base depend on the *political* authority (government or parliament). *Monetary* authority, however autonomous it may be, is forced, if it wishes to influence monetary base, to reduce the creation of money for business. However, crowding out depends not only on the volume of the deficit financed by loans, but also on the type of financing — whether bank loans or public bonds, which are on the one hand short-term and, on the other, long-term.

While a restriction in demand has modest effects on prices and, in certain circumstances, has none, it has a powerful impact on imports and hence on foreign accounts, and, through them, on the rate of exchange. Such a restriction can be obtained either by monetary policy (which normally has direct effects on investments and indirect ones on consumption) or by fiscal policy (which acts in the opposite way), or, more frequently, by a combination of both policies — a combination which in this case settles the differences between monetarists and Keynesians.

In general, the origin of the world-wide inflation in recent times is to be found in the explosion of oil prices and in the crisis in the international monetary system — a crisis characterized by the severing of the link (a limited but important one) between the dollar and gold and the dropping of the system of fixed parities.[8] It should be observed that this view has nothing to do with the monetarist theories, since, while it is true that originally the dollar crisis went from bad to worse because of the huge American foreign deficits and the abundance of dollars (but the measures to cope with it could have been different, for example, a sharp raising of the dollar price of gold), it is also true that, subsequently, the problem no longer consisted of such an abundance. To be more specific, the problem is not, *per se,* the weakness of the dollar, but its instability. The dollar, which still retains its role of a currency used for international transactions, especially in the markets for oil and raw materials, does damage when it loses its value in terms of the other currencies and gold, but it also does damage in the opposite conditions, that is, when its value goes up in terms of other currencies and of gold.

Friedman has dwelt not only on the question of the quantity of money, but also on the advantages of flexible parities. Thereby he bears the heavy responsibility of diverting attention from the central problem, which is that of a reform of the international monetary system capable of cutting generalised inflation at the root and, among other things, bringing back the speculative factor to its pre-1971 intensity. In my opinion, we must go back to a system linked in one way or another to gold, even if within narrow limits, and to a system of fixed parities thus

[8] The crisis in the international monetary system in its turn was led up to by a number of circumstances, among which, as noted by BIASCO (1979, p. 101), we also have to include the wage explosion of the triennium 1968-70.

recognizing from now on that the disadvantages of flexible parities are overwhelmingly greater than their advantages.[9]

Here we have discussed the problem of the inflationary pressure which in the last ten years has weighed on industrialized countries. The problem of inflation differentials is a different one, as these have varying origins and thus call for very differential measures within individual countries. But this problem does not come within the scope of the present article.

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[9] Can Europe take the lead independently and prior to the conclusions (which are now imminent) of the "Gold Commissions" set up in the United States. We should study the hypothesis of making the Ecu convertible into gold at a fixed rate — of course, convertible only for the central banks — and after having created a forward line of defence based on the strong European currencies. That is, convertibility ought to be circumscribed, split into two levels, and implemented gradually. All this could make the European Ecu widely attractive as a means of payment for international transactions and as a reserve of value (see QUADRIO CURZIO, 1981). Such a hypothesis, however, has nothing in common with that of a return to the gold standard, and has only certain aspects in common with the hypothesis of a return to the gold exchange standard.

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