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COST INFLATION

by

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Under the Supervision of

Prof. B. Hansen
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Contents

INTRODUCTION.

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During the last few years, the problem of development and inflation has been given much attention. The most important arguments for a certain degree of inflation as a prerequisite for development are:(1)

1) The full utilization of resources. For the rate of growth to be high, investments must be high, and it is thought that gross national product should be as large as possible - i.e. that no resources are left idle. This is taken to mean that the demand for resources has to be-on average-in excess, because of the practical difficulties of adapting demand and supply to each other in all fields.

2) Capital imports. Development requires import of capital which is achieved according to the classical theory - by an amount of domestic inflation greater than that of the outside world. We should note that inflation results in a deficit in the balance of current payments.

3) Forced Savings. The main idea behind this argument is that prices are perfectly flexible, so that all excess demands are immediately removed through price increases. Now, if investment plans are expanded so that to exceed saving plans, the result would be an excess for factors of production for investment purposes. Thus, factors prices will increase in investment fields, and factors will move from consumer goods industries to capital goods industries ; this shift in the allocation of resources is the basis of higher real savings. Higher factor's income with lower consumer goods production lead to rising consumer prices. Real wages will fall, and there will be unexpected excessive profits in the consumer goods sectors; this provides the basis of increased financial savings .

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(1) "Inflation Problem in Small Countries" by Prof. B. Hansen (lecture III)

Although these arguments make development through excess demand inflation very tempting , yet this policy has been rejected by most developing countries on the basis that:

1) Inflation is accompanied by redistribution of income in favour of profit earners at the expense of wage earners and fixed income recipients. This creates a social unrest that developing countries seek to avoid; particularly because most of them adopt a socialist philosophy.

2) Inflation creates a certain disorganization that leads to a loss of confidence which makes foreign loans difficult to obtain. It might be argued that foreign loans are not essential, since foreign capital may flow inside the country as a result of internal inflation. However, it seems doubtful that capital imports will go to the fields required for development ; on the other hand, a developing country cannot leave its foreign trade free, because free foreign trade exposes the country to fluctuations and foreign influences which may impede its development.

3) The forced-savings argument implies that factors of production are perfectly mobile so that they can move from one industry to another in response to excess demands. However, this mobility is lacking in developing economies where monopolies and market imperfections are prevailing.

4) Finally, developing economies usually plan for development so that, excess demand is no longer necessary to achieve a full utilization of resources; since Planning assumes this function.

Thus, most developing countries try to achieve development without excess demand inflation. However, it may happen that even if a market seems to be in equilibrium; so that at the ruling price excess demand is zero, the price tends to rise. In such cases, other forces than the excess demand in the market concerned, must cause price to change.

These considerations have led to the distinction between, on the one hand, demand-pull or induced inflation, and on the other hand cost-push or autonomous inflation. However, it has been argued that cost-push inflation in any sector of the economy is nothing but a price rise induced by an excess demand in some other sector of the economy.

In the first part of this paper, we shall try to investigate whether cost inflation is always induced by an excess demand.

In the second part, we shall be concerned with the role of costs in the process of price determination and with the forces that push different cost elements up.

Finally, as a conclusion, we shall try to investigate whether the inflationary forces considered are operative in developing economies.

After the examination of the factors responsible for cost inflation, we shall consider three factors in operation - I.e. the process of cost inflation. This will be the subject of the Appendix.

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PART I:

Cost Inflation and the Excess Demand.

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COST INFLATION AND THE EXCESS DEMAND

Is the cost inflation always induced by an autonomous inflation?

Before answering this question, it may be suitable to define the word "inflation" . For the purpose of this paper, it seems helpful to define "inflation" as a time of full employment(1) and rising product prices, as measured by the increase in a broad price index such as the consumer price index. Although there may be inflation without price increases in times when there are price controls, and then inflation becomes "repressed", this definition still has advantages. It is simple and unequivocal, it is in accord with common usage and finally it may apply, when accompanied with suitable adjectives to different types of inflation as "creeping" and galloping inflation, which refer to cases with different rates of price increase.(2)

The question now is : What causes prices to rise?

Wagner writes: "We distinguish nowadays two kinds of inflation according to their origin: demand-induced inflation which is due to an excess of effective demand over supply; and cost-induced inflation which is due to wage increases leading in their turn to inflation of prices if the employers succeed in passing the increase in labor costs on to the consumers.(3)

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(1) Full employment is taken here to mean either full employment of the labor force or full utilization of the productive capacity. We should note that the latter meaning is more applicable to underdeveloped economies where the main bottleneck appears in the capital equipment rather than in labor.

2) "The Wage-Price Issue" by Bowen (ch. 2) and "Cost Inflation and Demand Inflation: a useful Distinction" by Bowen in the Southern Economic Journal (January 1960)

(3) "Wage Policy and Full Employment "by Wagner in the Theory of Wage Determination (ed. by Dunlop) p. 89.

Cost-Push alone is not sufficient to call forth Inflation:

There is a contention that the cost-push inflation is indirectly induced by an excess demand because demand for labor and raw materials is a derived demand, and so, an increase in the demand for final products is reflected in the factor markets as an increase in demand for labor and raw materilas and thus results in higher factor costs which are in turn translated into higher final product prices. This is true, but it is necessary to distinguish between higher costs due to an increase in derived demand and higher cost due to an autonomous factor price increase, i.e. an increase in factor prices not attribute to an excess demand for factors. In the case of labor unions, for instance, autonomous wage increase may take place because the unions try to increase wage rates or because the unions have obtained a stronger monopoly position; another reason may be the distortion of traditional wage- differentials; and finally it may be that the unions expect demand to increase with an increase in money wages, so that employment will never be diminished as a consequence of higher money wages.(4)

Another contention is that there cannot be a cost-push inflation for without an increase in purchasing power and demand, cost increases would lead to unemployment not to inflation . In fact, an increase in effective demand is necessary for a continuing rise in prices. Effective demand should expand to absorb all units produced at the higher price; this expansion is made possible when monetary authorities follow an elastic credit policy. Our conclusion is that an expansion in effective demand is indeed necessary for a continuing price increase, but the first impulse for rising prices is the cost-push.(5)

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(4) "Inflation problems in small countries" by B. Hansen - First Lecture (On the Nature of Inflation)

(5) "Another View of Cost-Push and Demand-Pull Inflation" by Machlup in the Review of Economics and Statistics. (May 1960)

Demand-Pull alone is not Sufficient to lead to Inflation:[6]

Having shown that, in a certain sense, cost-push cannot cause inflation and it involves demand-pull, it may also be contended that under certain assumptions, demand-pull cannot cause inflation and it involves a cost-push. If in the economy, producers, distributors and labor unions take full account of increased cost of production and increased cost of living, but disregard changes in demand, then there cannot be any demand-pull on prices. In such cases, an increased effective demand would lead to unfilled orders and vacancies but would fall to raise Prices and Wages. It is clear that this model does not apply to the competitive areas in the economy, but it does apply to the manufacturing sector where prices are set on a cost-push basis.

The conclusion is that there may be conditions under which effective demand would not pull prices up and it takes a cost-push to lead to price inflation, as well as there may be circumstances under which cost increases would not push prices up, and it takes demand-pull to produce price inflation. We should make here the following distinction proposed by Machlup[6], namely that "an administered cost increase may be "equilibrating" in the sense that it merely absorbs a previously existing excess demand, or it may be "disequilibrating" in the sense that it creates an excess supply that may be prevented or removed only by an expansion of demand".[7]

It is clear then that demand and cost elements are combined in the process of inflation. However, it is essential that sufficient criteria should exist to determine whether we are faced by a demand inflation or by a cost inflation. For that purpose, Machlup makes the distinction between

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(6) "Another View of Cost-Push and Demand-Pull Inflation "by Machlup in the Review of Economics and Statistics (May 1960).

(7) We should note that cost increase induced by an excess demand are "equilibrating" when the system is stable and "disequilibrating" when the system is unstable.

three kinds of demand expansion, namely: autonomous, induced and supportive demand expansions; and three kinds of costs increase, namely: responsive, defensive and aggressive cost increases.

Types of Demand Expansions:

- Autonomous demand inflation would be expansions which are not connected to previous or to expected cost increases.
- Induced expansions of demand are direct consequences of a cost increase through the income side of cost increases.
- Supportive expansions of demand would be those due to monetary or fiscal policy designed to reduce unemployment arising or threatening to arise from cost increases.

Types of Cost Increases:

- Aggressive wage inflation would be an increase in wages which achieves a net increment in the real wage rate and which is induced by an increase in the employer's profits, or an increase in wage rates obtained by other labor groups or which are spontaneous. Aggressive inflation of materials and producers goods prices would be an increase in prices which exceeds the invreased production costs, thus achieving an increased profit rate calculated on the basis of the repalacement cost of the required capacity.

- A defensive wage increase in an increase in wages induced by an increase in the cost of living , this increase being designed to restore real earnings which the group of workers in question has long been enjoying. A defensive increase in prices of producers' goods and of materials leaves real profit rates unchanged, taking account of no more than the increased production cost.

- A responsive wage increase is that which is induced by an excess demand in the particular labor market; i.e. those wage increases which can occur as a result of competitive demand in the absence of any monopoly power. A responsive price increase may take place also in industries producing materials and producers' goods, but it is clear that it cannot occur in an industry with much excess productive capacity.

This classification has some defects: the cases it presents are not mutually exclusive and it implies a cross classification. Demand expansions should be divided into demand expansions connected with previous cost increases and demand expansions, not connected with previous cost increases; the first including both of induced demand expansions and supportive demand expansions, and the latter comprising autonomous demand inflation. In this way, the cases will be mutually exclusive. On the other hand, aggressive and defensive cost increases seem to cover all cases of cost increases, while the responsive cost increases may be considered as a cross classification; in the sense that responsive cost increases may be either aggressive or defensive, e.g. let us consider an expansion of public demand for labor, this expansion of demand calls forth a responsive wage increase which is aggressive too, since it is not due to higher cost of living, and since it achieves an increment of workers' real earnings.

<u>Definitions</u>:

On the basis of the preceding distinctions we may define demand-pull inflation as a case of rising prices due to <u>autonomous</u> expansions of demand, followed by responsive price and wage increases. Cost-push inflation can be defined as a case of rising prices due to <u>agressive</u> increases of wage rates and/or material prices followed by induced and/or supportive demand expansions.

We should note that these two definitions do not cover all cases of inflation; there are other cases of inflation e.g. a fall in productivity is likely to cut down real wages which, in turn, call forth a defensive money wage increase designed to restore worker's real earnings. This defensive wage increase leads either to unemployment - when the government follows an inelastic monetary policy - or to inflation - when the government follows an elastic monetary policy, so that a supportive demand expansion may take place. Thus, a fall in productivity may start an inflationary process.

A distinction which bears a close resemblance to that between cost inflation and demand inflation has been made by Prof. B. Hansen: namely, the distinction between induced and autonomous inflation [8]. Induced price increases are those called forth by excess demand in the markets concerned, whreas autonomous price increases are those which could not be explained in terms of the excess demand of the markets concerned. However, the criterion used in distinguishing between induced and autonomous price increases, namely excess demand, involves some troubles. The main trouble is that the concept of excess demand which is clearly defined in a perfectly competitive market as the difference between the quantity demanded and the quantity supplied at a given price, looses its clarity when applied to imperfect markets, because under conditions of imperfect competition, cost and demand schedules are interdependent [9], so that it is difficult to rely on the two schedules to determine excess demand,

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(8) "The Wage-Price Issue" by Bowen, ch. 2, and "Inflation Problems in small countries" by Prof. B. Hansen (First Lecture).

(9) Costs influence the demand for the individual firm's product through the existence of advertising costs. In turn, the demand situation confronting the firm influences the costs through affecting the prices of the factors of production since demand for factors of production is <u>derived</u> demand. When we move to the economy as a whole, this interdependence is more pronounced, for a shift in the cost function is almost certain to induce a shift in the demand function through the income side of cost adjustments. "The Price-Wage Issue" by Bowen, ch. 16.