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Inflation and The Development of Underdeveloped Areas

Whether or not the relatively underdeveloped areas can accelerate their process of development by recourse to deliberate inflation has, in the recent past, been a subject of widespread contention. It now appears to be settled in the negative, at least by most professional economists and responsible central bankers. Nevertheless, it may still be useful to give some thought to the problem, particularly emphasizing aspects of the economic structure of underdeveloped countries that condition their response to a deliberate attempt to use inflation as a method of stimulating and accelerating economic development. 1/

Summary

Inflation, as used in this paper, will be defined as a steady increase in the general level of prices, reflecting an expansion of money income relative to available goods and services. This process, when it has the effect of redistributing real income, will encourage development if the group gaining command over additional real resources purchases those kinds of resources (machinery, for example) which will themselves produce a stream of future income.

In attempting to measure the extent of inflation by reference to prices, it should be noted that a price index has certain limitations in a developing economy since changing tastes, technology, and the expansion of the market (price) system to cover larger areas of the economy may have an effect such that the index will not, over time, reflect the "true" rise in general prices that has taken place.

To make an accelerated rate of development possible, an inflationary price rise will first have to cause an increase in the amount of real savings available to the economy. Assuming an economy of profit and wage earners (money wages constant), the extent of the price rise needed to increase real savings by a given amount is shown to be inversely related to the relative share of labor in real income before inflation, inversely related to the marginal propensity to save out of profits, and directly related to the marginal propensity to save out of wages.

1/ This problem is somewhat different from that of determining to what extent it may be possible to accelerate development without inflation in these countries. For example, if one concludes that a deliberate policy of inflation may not accelerate the pace of development, it still does not follow that an increased rate of growth is possible without inflation (setting aside for the moment the problem of defining inflation). For example, the monetary authorities in an underdeveloped country may not, because of inadequate controls over the supply of money, be able to prevent an inflation once various sectors of the economy begin competing for the limited supply of real resources. For other factors which may be endemic to underdeveloped areas and which may produce an inflationary bias, see M. Zuntz, "The Pro-Inflationary Bias in Underdeveloped Areas" Current Economic Comment, XV (1953), 31-40.

An example is given in which, under reasonable assumptions as to the distribution of income and the values of the two propensities in an underdeveloped area, an attempt to increase real savings from six to eight per cent of national income would necessitate a fifty per cent rise in prices. Real savings will be increased by redistributing real income from wage earners to profit earners. However, if wage earners did not acquiesce in this loss of real income and succeeded in increasing money wages proportional to the price rise, and the government still attempted to increase real savings to eight per cent of national income by inflationary means, a hyper-inflation would quickly ensue, since the price level would rise at a compound rate. (The price rise needed for a given increase in real savings will vary between developed and underdeveloped areas because of differing values of the variables involved; comparisons between the two types of economies in this respect are made on the basis of a simple algebraic expression).

Even if the desired increase in real savings is achieved, however, these funds may not be channelled into uses most desirable from the point of view of a country attempting to increase real output. If private investors refused to undertake significant amounts of developmental investment before inflation, there is little reason to believe that they will increase this type of investment under inflationary conditions. Other unfavorable consequences of inflation such as an undesirable redistribution of income and a possible deterioration in a country's external position should also be recognized.

There may nevertheless be some instances (apart from the presence of unemployment) which justify inflationary financing by the government. Certain basic utilities may be immediately necessary to proceed further with development; and because of its inability to collect taxes, the lack of local capital markets, or a failure to obtain external financing in sufficient amounts, the country may resort to inflationary methods of financing. These inflationary expenditures, however, should be accompanied by measures to induce prospective entrepreneurs away from their traditional uses of saving so that public works will be accompanied by increased investment to raise the consumer's standard of living.

In general, it would appear that focussing on the effectiveness of inflation for increasing the level of savings and investment is somewhat misleading since one of the important problems of underdeveloped countries is that available voluntary savings are not put to their most effective use for achieving development. If the pattern of investment out of existing savings could be made consistent with the needs of a developing economy, real income and output would rise as would the relative share of real savings and with it the possibilities of accelerated growth.

Meaning and indications of inflation in underdeveloped countries

Inflation has often been described as a steady increase in the level of general prices. At times, one has felt that this does not mean <u>any</u> steady increase, but only an increase sufficient to arouse some sort of antipathetic response; the circumstances under which such a response may occur -- a lag in wages, the existence of a large body of fixed income receivers -- will vary from country to country and from time to time. Disregarding this tendency to associate the word "inflation" with that point at which society (or certain groups) finds a price increase distasteful, for the purposes of this paper inflation will be defined as any steady increase in the general level of prices (no matter whether at an increasing, decreasing, or constant rate), reflecting an expansion of money income relative to available goods and services, over a period of time. Once this rise has come to a halt, there is no further inflation.

Although prices become stable at a new higher level, it may not be completely true then to conclude that, because the inflationary process has stopped, the dislocations caused by the process will adjust themselves. To mention, at this point, only one such dislocation, the rise in prices to a new stable level may leave the country with a current account deficit in its balance of payments, unless the country's exchange rate or the internal price levels of other countries have adjusted to the new price level. In this instance a particular price level may be considered "out of line" -- in the sense that, given the constancy of certain other factors, a reduction in the price level would be necessary to correct an "undesirable" situation.

This steady increase in the price level is, if the monetary authorities are willing to make credit available, basically the result of one group in the economy attempting to consume a larger share of (given) real output than other groups are willing to acquiesce in.1/ If the group is successful, the real income of some sector(s) of the economy must be reduced as the general price level rises through the process of competition for a given quantity of goods.2/ If the amount of real output available to some groups (whose money income does not increase in proportion to the price level) is reduced, inflation may encourage economic development if the group gaining command over additional real resources purchase those kinds of resources, such as machinery, which themselves will produce a stream of income in the future. The condition under which this may occur will be discussed at a later point.

<u>Price index in a growth situation</u> -- Whether a particular (rising) price index accurately reflects the reduced command over real resources embodied in a given amount of money income (one must, of course, have some prior measure of money income and its distribution), and hence whether this price index indicates the extent to which a deliberate policy of inflation is in this particular aspect successful, depends on (1) the extent to which the particular basket of goods weighting the index reflects the actual pattern of consumption in the country, (2) the extent to which the rise in price of products not reflected in the index is proportional to changes in the index, and (3) the extent and rapidity of changing tastes and technology.

1/ See E. M. Bernstein and I. G. Patel, "Inflation in Relation to Economic Development," <u>IMF Staff Papers</u>, II (1952), 363-399.

2/ Assume, for the moment, a closed economy. In an open economy, the real income of some group, given domestic output, could for a time be increased without a rise in the domestic price level by using foreign exchange reserves for additional imports.

Without going into much detail over this index number problem, a few points should be brought out. Many underdeveloped areas are divided between what might be called market and non-market economies so that rural areas, where there is considerable subsistence farming or where the exchange of commodities is on some barter basis, will not be reflected in the price system. In these instances, some city cost of living index is usually all that can be taken as a measure of inflation and its composition will reflect the city standard of living, usually somewhat higher than that of the rural areas. Since broadening the market is an important aspect of a developing economy, one of the index number problems to be faced is that of constructing a new index to reflect the consumption habits of the areas formerly not part of the money economy.

If there are some products which are consumed in rural areas but not consumed in the city, broadening the index to include them may entail some of the problems of introducing a totally new product into the index. Instead of being priced at infinity in the past as would be the case with a product newly introduced into the economy, some past price may be imputed to this product previously available only in the non-market economy as long as it bore some barter relationship to a commodity traded in both the market and non-market economy and whose non-market price can be taken as equivalent to the market price for purposes of revising the index.1/

If it had no such relationship (and this is difficult to conceive except perhaps in the case of completely isolated tribes with strange feeding habits) and in the process of development becomes a market commodity, revising the index backwards becomes an even more arbitrary matter, as it would be in the case of a totally new product (such as modern refrigerators). In these cases one might give up the attempt to have continuity in the index and simply start a new one. The difficulty, though, is that the process of development of a very underdeveloped area, like the Belgian Congo, involves such a large broadening of the market and such an inflow of new products (perhaps not completely new but previously scarce enough so that their past prices bear no "reasonable" relationship to the general run of prices) that one may be faced with starting a new index (or revising the old one) rather often. In already developed areas, this problem may not be so pressing since there are no important areas outside the market and since new products are introduced into a rather broad and diversified economic structure so that the change may not significantly affect the cost of living.

Thus, by watching some price index, it may be difficult to observe how large a decline in the real consumption of some income classes is being effected through inflationary policies (even assuming statistics adequate for measuring the distribution of income).2/ Apart from the problem already

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1/ A commodity traded in both the market and non-market economy (but not between them) perhaps should not be taken at its past market price when revising the index; in the past, if the market had been broadened, its relative price may well have been different from what it actually was in the market. This adjustment may also be made in the index, but it seems a rather tenuous one.

2/ The effect of inflationary policies on development (the growth of real output) would, of course, be observed from indicators other than a price level. To what extent these indicators -- an output index, power capacity, new plants established -- can be made reliable would be another topic for discussion.

mentioned, changing consumer tastes in a growth situation may also vitiate the usefulness of a particular index. The extent of inflationary demands -- i.e., the difference between what would be spent and the value (at the price level at the beginning of the period) of the goods expected to be available during the period -- may not be fully reflected in a (rising) price index because of a shift in tastes away from goods contained in the index (and therefore a change in their relative prices); thus the actual rise in prices representing the increased cost of living would largely take place outside the index. Revising the index to take account of the change in tastes would again present the problem of non-comparability of the indices.

Despite the well-known problems associated with a price index, problems which are accentuated when dealing with a developing underdeveloped area, there is little alternative but to discuss inflation in price terms and as if there were some general price index by which the extent of inflation could be indicated.1/ In an actual inflationary situation, though, there would be a number of symptoms present: in addition to rising prices, there would be, among other things, an expansion of credit and the country's external position would be under pressure. If only some of these symptoms were present, it would probably indicate a rather mild inflation. Or, for example, if there were an expansion of the money supply without a noticeable price rise (or increase in output) it might indicate a situation of potential inflation where the desire for additional liquidity dampened the price effect of additional credit. As the expansion of credit continued, however, the desire for additional liquidity would become less prevalent and prices would begin to rise, attaining what might be called an explosive rate of increase as people discover the declining real value of their cash position and attempt to substitute goods for cash.

Form of deliberate inflation

The government may finance development in a number of ways, some of which will have an inflationary impact. The government may compete for goods and services by using funds obtained through the printing press, by financing through the banking system, or by securing funds from individuals either through borrowing or taxation.

While the first two of these methods are clearly inflationary in that they involve the creation of additional claims on real resources without reducing claims held by others (unless the banking system undertakes offsetting operations), the third method may or may not be. Taxation or borrowing which reduces the spending of those taxed (or who loan funds) by as much as the increased government spending will not be inflationary. In general, however, it can be presumed that borrowing from individuals will be somewhat inflationary since they will most likely purchase securities in

1/ Some attempts to measure inflationary pressures in various countries without reference to price indices are contained in J. K. Horsefield, "The Measurement of Inflation," IMF Staff Papers, I (1950), 17-48 and same author, "Inflation in Latin America," IMF Staff Papers, I (1950), 175-202. The amount of inflationary forces is measured by subtracting intended savings from intended investment (government deficit, investment, export surplus); the intended amounts (except for the government deficit) are estimated from realized amounts.

part out of what would otherwise be idle funds; similarly, financing through taxation may be inflationary if individual expenditures are not reduced by the full extent of the decline in disposable income -- if, in other words, individuals do not acquiesce in the government claiming a larger share of available output by reducing either their consumption or investment demands.

The government may also contrive an inflation by refusing to prevent one. Increases in the supply of money because of (say) an inflow of specie may cause price rises; if wages lag, these price rises may lead to favorable expectations on the part of producers, as their profits per unit from current sales increase and further price increases are expected, so that they are willing to expand investment and introduce technological innovations.1/

In general, the desire of one group in the economy for a larger share in real output may be reflected in larger credit demands. If the government or central bank does not take steps to counteract this situation, or if other groups in the economy do not reduce their demand, given output, inflation will ensue. The rise in prices may, as previously mentioned, then lead to additional real investment, and this induced investment demand may be the result of an original rise in consumer demands or attempts by producers, for one reason or another, to make new investments before there is evidence of a rising price level.

Effect of inflation

The success of an inflation in accelerating economic development depends on the extent to which the price rise leads to additional investment in those types of goods which will contribute to an increased output not only in the period of production but in ensuing periods. The need for an inflation to secure these results can be attributed to an existing level of voluntary savings inadequate to sustain a desired rate of increase in real output; inflation, by redistributing income, may increase the amount of savings and therefore the possibility of increased real investment.2/ The redistribution of income and wealth, the immediate decline in the standard of living of some segments of the community, a possible allocation of resources to luxury goods, "inappropriate" construction, investment in inventories or foreign exchange, and a possible deterioration in the country's external position are some of the costs of inflationary financing. If the additional savings go into undesirable investment, this will very likely prevent the inflation from having a significant effect on the rate of development.

1/ For the development of this point with historical data, see Earl J. Hamilton, "Profit Inflation and the Industrial Revolution, 1751-1800," Quarterly Journal of Economics, LVI (1942), 256-273 and same author, "American Treasure and the Rise of Capitalism," Economica, November 1929, 338-357.

2/ If inflation continues long enough at a high enough rate, it will entail a flight from cash (savings) into consumer goods and, hence, a decline in the amount of real savings available for investment.

Effect on domestic savings -- There is some question as to how large an increase in savings can be achieved through inflation. Although reliable data for underdeveloped areas is scanty, one authority has made the following guess: "Whereas under fairly stable monetary conditions, the saving and net investment in an underdeveloped country might amount to, say, 6 per cent of the national income, under inflationary conditions, even with the increased savings out of profits, savings and net investment are not likely to exceed, say, 8 per cent of the national income."1/ This is a rather small increase, probably not worth the effort when the social costs of inflation are considered, and the increase may be obtainable through other means such as taxation which can be non-inflationary.

The amount of additional savings that can be obtained depends on the shift in real income that occurs and on the differential propensities to spend of those who gain and those who lose income. If a general price rise does not cause wages to rise as much as other prices, the money income of those who receive profits will rise; the money income of wage earners may rise some or remain the same but their relative share in total money income will decline. The real income of wage earners will, however, decline absolutely while that of profit-receivers will increase. As previously mentioned, whether the future real income of society will rise then depends on the use made of this increased command over output by profit-receivers. (Receivers of fixed income would, of course, also face a decline in real income and therefore may reduce their real savings in an attempt to preserve their standard of living, thus reducing the total savings available to society.)

Before discussing the impact of inflation on the incentives to invest and the nature of investment, one should note the extent to which income must be redistributed in order to achieve a desired increase in the level of savings, and, if this is to be achieved through inflation, the extent to which prices must rise. This can easily be shown by a numerical example and then generalized. Take a closed economy made up entirely of wage earners and profit earners, profits being the difference between the total wage bill and total sales. The initial situation is indicated below.

	Wages	Profits	National Income
Income	600	400	1,000
Consumption	590	350	940
Savings	10	50	60

In this case, which may not be an unreasonable example of an underdeveloped area, savings are six per cent of national income. In order to accelerate development it is desired to increase savings to eight per cent of the national income. This will evidently entail a shift in real income so as to increase the amount of real savings to 80 units. Assuming the marginal propensity to save of profit earners to be fifteen per cent, or somewhat more than their average propensity in this example of 12-1/2 per cent, 200 units of real income will have to be transferred from wage earners, whose marginal

1/ Bernstein and Patel, op. cit., 376.

propensity to save is assumed to be five per cent, to profit earners. The final situation in real terms will be the following:

	Wages	Profits	National Income
Income	400	600	1,000
Consumption	400	520	920
Savings	--	80	80

The rate of increase in price necessary to reach this position, assuming money wages constant, is given by the ratio 600/400, representing the decline in real income of wage-earners necessary for increasing total real savings by one-third; in this case, with no increase in money wages, prices would have to rise by fifty per cent of their original level. If the marginal propensity to save out of profits were greater, the needed price rise would be smaller; similarly, if wage earners did not make some attempt to maintain their consumption by reducing savings, the needed price rise would also be smaller.1/ Further, to achieve any given percentage increase in the relative share of the savings in the national income, the larger labor's relative share of the national income, the smaller will be the necessary price rise, since a given shift in real income will be from a larger base and will therefore require a smaller percentage price rise for the shift to occur.

These relationships can be developed algebraically so that the extent of the needed price rise (wages held constant) may be computed for different values of the variables. The following symbols are used:

Y_w, Y_p = relative share of wages (x 100) and relative share of profits (x 100), respectively, in national income before redistribution, where Y (national income) = $Y_w + Y_p$

Y' = per cent of real national income to be redistributed (x 100)

S' = relative share in real national income of the incremental real savings (x 100)

m_p, m_w = marginal propensity to save out of profits and wages, respectively

P' = increase in price expressed as a multiple of unity

1/ If the marginal propensity to save out of profits is equal to that of wage earners, no price rise will increase the share of real savings. If the marginal propensity to save out of wages is greater than that of profit earners, a price decline would be needed to increase savings.

For a given S', the necessary redistribution of real income can be derived.

$$m_p Y' - m_w Y' = S'$$

so that

$$(1)\ Y' = \frac{S'}{m_p - m_w}$$

The increase in price is given by

$$(2)\ P' = \frac{Y_w}{Y_w - Y'}$$

since it reflects the necessary loss in purchasing power out of (constant) money wages in order that the real income of profit receivers may be increased.

Combining (1) and (2)

$$(3)\ P' = \frac{Y_w (m_p - m_w)}{Y_w (m_p - m_w) - S'}$$

From (3) the results can be summarized: the necessary increase in price for a given S' is (a) directly related to the magnitude of S', (b) inversely related to the relative share of labor, (c) inversely related to the marginal propensity to save out of profits, and (d) directly related to the marginal propensity to save out of wages.

Comparisons may be made between relatively underdeveloped and developed countries from these results. Since the relative share of savings in an already developed country is probably larger than in a less developed one, it follows that for any given percentage by which it is desired to increase real savings 1/, the required value of S' will be larger for the developed country, and hence the extent of a price rise to increase the share of real savings at this rate will be larger. Put another way, other things except the relative share of savings being equal, the same price increase will yield a larger relative increase in savings in an underdeveloped area than in a developed one.

However, because of the already larger amount of savings out of current income in a developed area, the desired rate of increase in savings would ordinarily be less than that of an underdeveloped area. If the desired rates of increase in real savings are such as to make the S' of both types of countries equal, then, with the value of $(m_p - m_w)$ being the same for both, an

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1/ Calling this percentage r, S' = rS where S = relative share of savings (x 100) in national income before redistribution.

underdeveloped area, because of the distribution of income (i.e., its lower ratio of wages to profits), will need a larger price inflation than a developed one to attain the given S'. The available statistics -- recognizing all their inadequacies, particularly in the underdeveloped areas where there is a relatively large amount of non-pecuniary income, where profits are probably understated, and where (just as in a developed economy) it is difficult to tell what part of the income of unincorporated enterprises (such as farms and small shops) is profits and what part wages -- indicate that the ratio of wages to profits is lower in underdeveloped countries. Ratios for selected countries are shown below (profits = unity): 1/

United States	2.1	Colombia	1.5
United Kingdom	2.3	Chile	1.0
Ireland	1.0	Southern Rhodesia	1.5
Puerto Rico	1.6	Kenya	0.6

The numerical example previously given uses a ratio of 1.5 before the redistribution of income. Under the assumption ($m_p = .15$, $m_w = .05$ and $S' = 2$), the price increase necessary to increase the share of savings from six to eight per cent of national income (hence $r = 1/3$) is fifty per cent, as can also be seen by substituting in (3). If the ratio of wages to profits were that of Kenya, it would be found that a doubling of the price level would be necessary. For the same S' in a developed country (let us say in this case that $S = 15$, $r = 2/15$ and therefore $S' = 2$) and the value of $(m_p - m_w)$ being the same .1 (assume $m_p = .2$ and $m_w = .1$) then the necessary price rise in a developed country with income distributed as in the United States would be from 1 to 1.4, or a somewhat smaller price rise than would be called for in an underdeveloped area. If r for the developed area were 1/3, the same as that for the underdeveloped one, then P' would be 3.5 under the above assumptions -- a much larger price increase because of the larger original share of savings.

Counteracting this need for a larger price inflation in underdeveloped areas is the likelihood that the value of $(m_p - m_w)$ is larger in these areas because of the near subsistence level of wage earners, their lack of past savings, and, hence, their tendency to reduce consumption by the full reduction in real income (i.e., both the average and marginal propensities to save of wage-earners may be very close to zero). The value of $(m_p - m_w)$ may be smaller in developed areas because of the tendency of wage earners to reduce savings somewhat as income declines so as to maintain consumption; in this case a greater price inflation would be needed to secure a given S'. 2/

1/ Source: United Nations, Statistics of National Income and Expenditure, Statistical Papers, Series H, No. 3, New York: 1953. Profits include "income of unincorporated enterprise" and are before taxes. Wages are both wages and salaries.

2/ Receivers of fixed income might also be considered at this point since there will be a transfer of real income between them and profit receivers and possibly wage earners as prices rise. And since the relative contribution to real savings by receivers of fixed income is probably larger in developed than underdeveloped areas, the "expropriation of the rentier" may have a larger dampening effect on the availability of real savings in the former areas.

Using inflation to increase the share of real savings leads to the possibility of hyper-inflation and therefore to many more dislocations than would ensue from a one-time rise in prices. If money wages rose proportionately to prices, real savings would tend to remain at the pre-inflation level. If wages always tended to catch up with prices, and the government still attempted to increase real savings to eight per cent of national income by inflationary means, a hyper-inflation would quickly ensue since the price level would rise at a compound rate. A one-time rise in prices will achieve the desired increase in savings only if money wages do not rise when wage earners realize the extent of their loss in real income. And one might safely say that the larger the necessary price rise the more likely it is that wage earners will become aware of their loss in real income and attempt to increase their money wages. Under the assumption, then, the government would probably be unable to increase the share of real savings from six to eight per cent.

Effect on domestic investment -- Even if the desired increase in real savings is achieved, these funds may not be channelled into uses most desirable from the point of view of a country attempting to increase real output. As is well known, a rising price level may encourage such things as investments in inventories, gold, and foreign exchange. Or it may encourage the purchase of land for speculation, prestige, or for the eventual construction of unnecessary buildings. Or it may encourage a general flight from cash into various types of consumer goods. What may not be encouraged is investment in factories, in the improvement of land so as to increase agricultural output, or in basic utilities such as roads, power, and port facilities which underdeveloped areas so often lack. In addition, underdeveloped areas need large scale investment in human beings to educate and train them for new tasks. This sort of investment, made by society devoting some of its resources to training over a period of time during which it relinquishes some potential physical output of consumption or investment goods, is certainly not encouraged by rising prices.

Developmental investment may not be encouraged by price inflation on two counts: first, for the complex of reasons that cause a country to be and remain economically underdeveloped; and secondly, for reasons connected with the distorting effects of the inflation itself. For these purposes, there is no need to go into much detail on the question of why an underdeveloped country is underdeveloped. There are reasons connected with its available physical resources and there are reasons connected with its inability to organize its economic and social institutions so as to attain a larger and growing output from whatever physical and other (labor) resources are available to it. There may also be reasons connected with existing barriers to the movements of goods, knowledge, and population among countries. What needs to be pointed out in the context of this paper is that, in an underdeveloped country, there may be no increased propensity to invest in what might be termed "developmental" projects, despite favorable profit expectations engendered by a rising price level.

While a rising price level may also, in a developed area, distort the pattern of investment that would have occurred if the share of real savings had been increased by methods other than inflation, at the same time there may also be some tendency in these countries to increase the level of those investments entailing additional flows of real income in future years, which are in this sense "developmental." This tendency may exist because the mere fact of being economically developed indicates that the necessary social and cultural conditions (whatever they may be) to development are present and, therefore, that profit receivers respond to a set of motivations among which is the desire to expand investment with the expectation of increased profits.

Cases where inflation seems necessary to development -- There may nevertheless be some instances where inflation is needed in order for further economic development to take place. In determining where such situations exist, the pattern of investment needed is relevant.

Depending on a country's stage of development, different kinds of investments will be needed in varying relative amounts, and in the practical situation inflation may be the only immediately available method of financing certain types of investment. A very underdeveloped area, for example, will need a relatively large amount of investment in roads (to connect rural food producing areas with urban areas), education, and public utilities. And these types of projects are certainly unlikely to attract private investment funds in underdeveloped areas, price inflation or no. The government then may have to undertake such projects; if so, it may have to resort to inflationary methods because of its inability to collect taxes, the lack of local capital markets, or a failure to obtain external financing in sufficient amounts. As a country develops, the type of projects which the government may have to finance, and finance through inflation, will presumably diminish as the immediate needs for basic utilities are satisfied and as, in the process of development, society develops within itself incentives to invest and innovate.

In this context, inflation is viewed as a substitute for taxation to finance public investment at the beginning stages of development. The ensuing inflation will then make possible the expansion of private investment out of profits rising relative to wages. The extent to which the expansion of investment becomes a possibility and the extent to which it results in further developmental investment depends on the magnitude of the price rise, the increase in real savings, and the response of profit earners to the changing situation.

When a government (of an economy which by assumption purchases only consumer goods) does finance public works by deliberate inflation, the extent of the price rise will then depend on a number of factors. It will have to hire laborers who may be otherwise employed in producing consumer goods such as food or in producing goods which would be exported in exchange for food. If they are so employed, the government will then have to pay higher wages than they previously received. The total wage bill will be larger than before the new investment, but the supply of goods available to the consumer will be either unchanged or smaller; the supply of goods will be unchanged if the workers were unemployed or if employed, their contribution to output of the good was so small that transferring them will not decrease output; the supply of consumer goods will diminish if the workers made some positive contribution to their output. The extent of the price rise in consumer goods will then depend, among other things, on the increase in the total wage bill (rather, that part of the increase which will be spent) relative to the change in the output of consumer goods. 1/

The magnitude and speed of the price rise from a given inflationary expenditure by the government on public works will depend on factors such as the elasticity of supply for the desired consumer and investment goods, the amount of unemployment, and the income-spending and spending-production lags. Given the price increase, the amount of additional real savings obtained will then depend on factors discussed in the previous section. There may then be some increase in private developmental investment because of this; it will, however, at best be some (small) fraction of whatever increased real savings is achieved. More than likely, though, the new pattern of private investment will be no more suitable to the needs of a developing economy than was the pre-inflationary pattern. 2/

Conclusion

In sum, it takes a relatively large price increase (even assuming no increase in wages) for inflation to increase private real savings to any sizeable extent. In an underdeveloped area, it is likely that only a fraction of these savings will be appropriately invested because the important factors deterring investment are not directly related to the need for favorable profit expectations; they are related to a different view of the individual's role in society -- and innovation, risk-taking, and profit-seeking are not important aspects of that role. Further, the social and economic costs of an extensive inflation -- a tendency to an import surplus (where the additional goods imported are not those which will later cause an improved balance of payments position), a flight from cash into gold and land, discouragement of foreign investment and lending, general insecurity, etc. -- may actually make further development more difficult.

Perhaps the only case in which some inflationary financing may be justified (apart from the presence of unemployment) is where it is necessary to start a program of urgent public works, and where, at the same time, other measures are being taken to induce prospective entrepreneurs away from their traditional uses of savings so that the public works will be accompanied by increased investment to raise the consumer's standard of living. Even in this case, however, it may be argued that the tax system should first be improved so that tax funds are available for such expenditures.

1/ See Koopmans, T. "Dynamics of Inflation," Review of Economics and Statistics, XXIV (1942), 53-64 for a discussion of factors affecting the rate of increase in price for the economy as a whole. Eventually, as (and if) consumer goods become available, the real income of consumers will rise.

2/ The many unfavorable consequences of inflation have been amply discussed by Singer, H. W., "Development Projects as Part of National Development Programs," in U.N., Formulation and Economic Appraisal of Development Projects, New York, 1951; Alter, Gerald M. "Desarrollo Economico sin Inflacion?" El Trimestre Economico, XVII (1950), 214-232; and Bernstein and Patel, op. cit.

Some inflation, however, is probably unavoidable in the process of development. At least at the first stages of development, there will always be significant lags between increases in consumer incomes and the availability of consumer goods; further, it will take a country time to develop a banking system or other monetary authority capable of controlling inflation. But these small amounts of inflation will probably not be effective in redistributing income to any significant extent and, in a growing world economy, the country's external position may not suffer as long as its (small) rate of inflation is no greater than that of other countries.

Without forced savings through inflation, development in underdeveloped areas will have to proceed at a rate consistent with the share of voluntary savings in national income plus capital inflow. But focussing on the level of investment possible is somewhat misleading since one of the important problems of underdeveloped countries is not that their rate of development is unduly restricted by their present levels of savings; their problem is that these savings are not put to their most effective use for achieving development. For example, rather than increasing the present share of real savings from six to eight per cent, the basic problem is putting the six per cent to effective use. If this is accomplished, real income and output will rise as will the relative share of real savings and with it the possibilities of accelerated growth.

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Banking Operations in Communist China Criticized — Reed J. Irvine

An article originally carried in the Communist journal, China Finance, and reprinted on March 24, 1953, in a Tientsin paper, Ta Kung Pao, 1/ has charged Communist China's banks with gross inefficiency and shocking abuses in the treatment of both employees and customers. This surprisingly frank article casts considerable light on some of the difficulties the Communists have encountered in their effort to bring the banking system completely under state control. It also provides an insight into the significance of bureaucratic control over the banking system for the general public.

Centralization of control over banking system

Chinese Communist control of mainland China's banking system began early in 1949. The Central Bank of China was seized and reopened as The People's Bank of China on May 30, 1949, five days after the fall of Shanghai. In the following months rapid action was taken to bring the private banking system under the control of the People's Bank. It was given broad supervisory and inspection powers, with the right to fix reserve requirements, approve interest rates, and require detailed periodic reports on all phases of the commercial banks' activities. Later the People's Bank promoted a movement to develop commercial banking syndicates which would permit the pooling of resources of a large number of commercial banks and subject their use to the more effective control of the People's Bank. Moreover, the People's Bank representatives participated in board meetings of all banks in which the National Government had held shares. Payment of dividends, making of loans, accumulation of reserves, and rates of interest were all subject to the control of the central bank so that by the end of 1949 private ownership had lost most of its significance.

The People's Bank, acting as both central and commercial bank, extended its own operations rapidly. Because of amalgamations, the pressure of competition, and screening by the authorities, there was a sharp reduction in the number of private banks operating in China between 1949 and 1951. The People's Bank, however, multiplied its branches and sub-branches, established new joint-banks together with private capital, and bought shares in existing banks. In addition, the People's Bank tightened its control over inter-bank relationships through its participation in bank associations. By 1953, the number of persons employed in the state's banking enterprises was reported to be over 300,000.

1/ Translated in Survey of China Mainland Press, No. 571, May 13-14, 1953. This publication is issued several times weekly by the American Consulate General, Hong Kong.

Results of centralization

This rapid centralization of banking operations is now admitted to have been accompanied by some very undesirable developments. The China Finance article singles out three types of faults or abuses which have grown up and which have so far defied correction. These are described as:

(1) "Commandism and inefficiency, manifested mainly in the handling of farming credits, savings and insurance and in the organizing of credit cooperatives.

(2) "Tying up of capital and the squandering of resources, causing loss to the state.

(3) "Complex systems and low efficiency, leading to delays and mistakes and impairing the health of personnel."

Commandism -- Commandism is a term adopted by the Communists to describe the arbitrary exercise of authority, usually involving failure to observe due process of law. China Finance complains that it is a very prevalent and serious practice in the banking system at the present time, charging that in handling rural credits, insurance, savings campaigns, credit cooperative drives and administrative work the banks have been guilty of serious abuses of human rights and have even driven people to suicide. For example, in Chiahsing, Chekiang, 174 peasants were reported beaten by bank employees, apparently for failure to repay loans. Elsewhere bank employees bound and imprisoned overnight peasants unable to repay their loans. Suicides resulting from impoverishment as a result of the forced repayment of bank loans or what amounted to forced collection of savings quotas are reported in detail from several areas.

It appears that in rural areas savings campaigns have often been carried out with the liberal use of force or the threat of force although participation was nominally voluntary. The local banks were assigned collection quotas, and they in turn allocated quotas to individual households, often in an arbitrary or discriminatory manner. One plan used involved dividing the populace into five categories and assigning quotas in the following order: (1) alleged counter-revolutionary elements; (2) landlords and rich peasants; (3) middle peasants; (4) "tsun" cadres and Communist party and league members; and (5) families of martyrs and servicemen. Various types of pressure were applied to force fulfillment of the assigned quotas. One technique, cited as being employed in Yuhsien, Chahar, was to force peasants to attend meetings for successive nights until they subscribed to savings bonds. In other places peasants were kept in meetings all night by militia men until they bought their alloted bonds.

Another technique was to employ psychological intimidation. Those who did not buy bonds might be accused of anything from mere lack of patriotism to being spies. In some areas these charges were nicely systematized. It was decided that landlords and rich peasants who made no deposits would be accused of "harboring evil ideas"; merchants of clinging to the "five poisons"; 1/ middle peasants of being unfriendly; and poor peasants of lack of patriotism.

The work team of the Changpu bank branch in Fukien offered priority or larger credits to those who bought savings bonds. In Chekiang, South Kiangsu, and South Anhwei there was an attempt to tie savings deposits to government purchases of crops. This is said to have interferred with the crop purchase program. Other banks tied deposits to loans, withholding part of each loan as a savings deposit. Banks in some localities placed obstacles in the way of withdrawals in order to maintain their savings accounts at a high level.

Similar tactics were employed in connection with the organization of supposedly voluntary credit cooperatives. One method was to hold daily meetings in the homes of peasants unwilling to join the cooperatives. The Shulan Party Committee in Kirin deducted the purchase price of cooperative shares from the proceeds of the sale of peasants' grain. Those who did not take shares or could not make deposits were subjected to criticism and abuse as "stupid elements" at mass meetings. The China Finance article tells of a peasant and his family weeping when called upon to deposit 10,000 catties of grain: "Seeing that, the work team increased the quantity to 15,000 catties on the following day and told them cruelly, 'Since you cry, let you deposit more.'"

Mismanagement of bank resources -- It appears that carelessness in the granting of rural credits has been responsible for some of the abusive treatment of borrowers. It is charged that smaller agricultural loans were parcelled out to farmers mechanically in many instances, with no consideration given to the need for the loan or the use to which it might be put. Often the amounts loaned were so small that they could not possibly be used for productive ends. Having made bad loans, the banks have been tempted to use harsh tactics to force their repayment and avert losses.

1/ The "five poisons" were the charges made against the urban middle classes in a nationwide campaign earlier this year. They are tax evasion, bribery, fraud, theft of state property, and theft of state economic secrets.

Failure to exercise reasonable judgment in the use of the banks' resources has not only given rise to "commandism," but it has also resulted in the tying up of a substantial volume of capital over long periods of time. This charge applies in particular to the field of commercial credit where apparently borrowers have not been subjected to the same pressures to force prompt repayment as have been employed in some rural areas. Reports of the Peking sub-office of the People's Bank recently showed that 42 per cent of the total loans outstanding had been given at least one extension. In some cases as many as ten extensions had been granted. A similar situation is reported as existing in other large cities.

China Finance also complains that the People's Bank has suffered substantial losses as a result of faulty policies in the granting of developmental loans. Irrigation projects in several areas have been financed despite the fact that they are clearly not self-liquidating. The receipts from the sale of water on some projects is insufficient to pay even the interest on the loans. In one case, a new dyke was financed by the bank though its construction was opposed as unnecessary by the peasants in the area. Poorly engineered, the dyke was lost in a flood soon after. The peasants not only refused to repay the loan, but demanded that the Government compensate them for their losses in the flood.

Red tape and overwork -- The third type of criticism made of the banking system concerns excessive red tape and the placing of excessive burdens on the employees. At the Fourth National Accounting Conference, the head office of the People's Bank prescribed a total of 14 reporting forms for use in the banking system. However, the use of forms has greatly multiplied in the lower echelons. The Shanghai sub-office, for example, requires its business offices to fill in 93 kinds of reporting forms. Its main business office has to complete 127 different forms. This work places a heavy strain on the employees and there is strong suspicion that many of the reports made serve no useful purpose.

China Finance claims that the health of bank employees is seriously impaired by overwork due to the complexity of the banking system's procedures and regulations. It states that in many banks and offices extremely serious cases of illness and even deaths have been reported as a result of heavy work, long working hours, and poor sanitary conditions. Some branch banks in medium and minor cities where the work load is lighter and overtime would not be justified by the volume of business require employees to spend several hours each day studying with the result that they are left with little, if any, leisure time.

Conclusion

The fact that serious charges of this nature have been published and re-published in China, is strong evidence that the ills of the banking system are of serious importance. China Finance makes it clear that it is not describing isolated events or conditions which have been corrected once attention has been called to them.

"These problems did not arise in individual districts," it emphasizes, "nor were they discovered only recently. But they have not been given due attention and have not been corrected and solved in time."

The Communist critic, unable to consider the possibility that the fault lies largely in the excessive centralization of authority and the bureaucratic mechanism itself, places the blame on the individuals responsible for the operation of the huge complex system that has been created. He complains that "the leading departments of the banking organs, particularly the head office of the People's Bank, are still satisfied just to sit in their offices and write decisions and issue directives, paying attention only to arranging work and taking no steps to go down among the rank and file to learn the situation and check up on the work." The practice of attributing all defects to the shortcomings of the personnel in positions of authority is necessary in lands where the system itself is beyond criticism. However, the authorities responsible for the direction of China's state banking enterprises are not likely to find it practicable to attempt to exercise personal supervision over all the actions of their 300,000 employees.

It seems apparent from this distance that the primary trouble with the system is not bad management, but the congenital ailment of over-centralized bureaucracy, a deficiency of incentive combined with an excess of authority. The bank's customers are abused not only because the bank is an arm of the state which is apparently clothed with coercive powers, but because the employees have no positive incentive to treat these customers with courtesy and consideration. There are doubtless many reasons why bad loans are made, but one appears to be that loans are made on the basis of orders received from higher echelons in either the bank or government, rather than on the basis of the bank manager's judgment as to the most profitable employment of his funds. Red tape proliferates and employees are overworked at least in part because the upper echelons in the system are unwilling or unable to delegate adequate responsibility and place adequate confidence in the lower banking organs.

The past performance of these abuses exposed by China Finance serves to demonstrate inherent weaknesses in China's state banking system. When the experience of other Communist lands is considered one may conclude that it is more likely that the abuses will be tolerated than that the underlying causes will be recognized and corrected.