THE EFFECTS OF INFLATION IN SOUTH AFRICA

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It has been thought that the most useful purpose that could be served by this discussion on the effects of inflation is to try and make as clear as possible the distinction between what are inflationary effects per se and what may merely be descriptions of some economic developments during an inflationary period. The public debate on inflation is characterised by the perhaps natural tendency to identify inflation as the popular villain responsible for all our economic problems. What the economist should hope to bring to the discussion is a little analytical precision that might enable us to avoid spurious inflationary correlations.

What therefore will be proposed are some hopefully generally valid propositions about the effects of inflation and thereafter wilfully try and relate these to the South African experience. The recent economics literature has surprisingly little to say on the consequences of inflation compared to, for example, the causes of it. Sir John Hicks addressed himself partly to this question in his paper to The Jubilee Conference of the South African Economic Society last September and some of the interesting issues raised by him will be considered below. You will however notice the assistance provided by John Maynard Keynes - not the Keynes of the General Theory but the Keynes of the Tract on Monetary Reform. The Tract was written in the aftermath of the First World War inflation and subsequent deflation. You will agree that Keynes, as may be expected, said some things that are highly pertinent to our purpose. Moreover, he managed to say them in a characteristically powerful fashion.

However, Keynes was dealing with classic inflation. Inflation associated clearly with high levels of government spending for war. It was unexpected inflation and came after a very long period of price stability, it was limited in duration and was followed by a very severe deflation which was itself considered one of the inevitable consequences. Perhaps when we think of inflation we think instinctively of classic inflation. Like the generals we should however avoid trying to fight the last war.

Out inflation is different. In the first place it is of much longer duration. Prices have been increasing ever since the Second World War. However, price increases have not accelerated until fairly recently. In case one needs reminding of this consumer prices increased by 24% between 1940 and 1944, by 16% between 1945 and 1954, by 10% 1955 to 1959, by 7% 1960 to 1964 and by 12% 1965 to 1969. In the five year period to the end of 1974 prices had increased by 39% and as we all know, were rising very rapidly. Secondly our own inflation has been part of world wide inflation. Much of the explanation of the increases in our money supply lies in

the behaviour of the balance of payments rather than in government finance. This is also true of the recent inflation. Our money supply has expanded more rapidly when the balance of payments has been favourable and less rapidly when the balance of payments has been unfavourable. This is exactly what is to be expected of a monetary regime attached to fixed exchance rates which ours have mostly been in a world where the world supply of money, mostly dollars, has been increasing. This is the subject for at least another paper. However, all that is intended in these remarks here is that continuous inflation is perfectly consistent with "sound" government finance.

One looks obviously to the effects of inflation on the distribution of wealth in the first instance and on the creation of wealth in the second. The other effects of inflation are the attempts economic agents, including of course governments, make to anticipate and control inflation and to adapt contractual arrangements, legislation and institutions accordingly. By means of such adaptations redistribution effects are modified over time . One thinks here of indexing of one kind or another that replace fixed price contracts with flexible ones. In addition institutional changes made for the immediate purpose of coping with inflation may have in turn implications for economic growth. For example the possible effects of price control on the efficient allocation of resources.

It should be understood that when we mention the effects of inflation we are referring specifically to the effects of a general increase in prices or as Keynes entitled chapter 1 of the Tract,"The Consequences to Society of Changes in the Value of Money."

Keynes introduced his study in the following way -

> "It follows, therefore, that a change in the value of money, that is to say in the level of prices, is important to society only in so far as its incidence in unequal. Such changes have produced in the past, and are producing now, the vastest social consequences, because, as we all know, when the value of money changes, it does not change equally for all persons or for all purposes. A man's receipts and his outgoings are not all modified in one uniform proportion. Thus a change in prices and rewards, as measured in money, generally affects different classes unequally, transfers wealth from one to another, bestows affluence here and embarrassment there, and redistributes Fortune's favours so as to frustrate design and disappoint expectation". (p. 1 - 2)

We might put Keynes' observations more prosaically by saying that inflation effects the distribution of income because it effects relative or real prices. That is, more specifically, it effects the relationship between income and expenditure, for example, of households, or in the case of firms the relationship between costs and

revenues are immediately reflected in the money value of any asset producing a flow of net money income or in the money prices of finance titles to such income flows. These changes in the prices of assets provide the most conspicuous forms of inflationary gains and losses. To reflect an inflationary gain of course an asset would have to increase in money value by more than the increase in prices generally.

It should be clear that relative prices may change for a variety of reasons. Real demand or supply factors may change over time. Real savings may increase or decrease causing changes in the real cost of investment. Real monopoly powers may strengthen or weaken. Real taxes or their burden may change over time. The effects of these real changes are also reflected immediately in asset values.

In essence inflationary gains or losses are indistinguishable from ordinary true economic profit or loss. They are all functions of economic uncertainty. Functions more particularly of uncertainty about the future prices of the goods economic units buy and sell. If the future were known with certainty then the prices of all goods would be established at one point in time for all time. This is the lesson of the general equilibrium analysis. It is essentially a timeless model.

Applying the general equilibrium analysis it may be said that if everything about the future were known with certainty including therefore the future changes in all prices, no inflationary gains or losses could be made. Competitive forces would establish the "correct" structure of prices immediately. Therefore it may be concluded that it is incorrectly anticipated changes in prices that are responsible for inflationary gains and losses. Contracts to buy and sell and agreements on quantities and prices to be delivered are struck at a point in time to give effect to production and consumption plans that are to be realised over time. If prices rise or can be raised faster than was generally expected when production or consumption plans were put into effect, then those economic units who buy before they sell make gains and those who sell before they buy, suffer the equivalent losses. The opposite will result when the actual rate of price increases transpires to be lower than expected. It is of course typically the firms who buy or hire resources before they sell their output and typically households who supply labour or savings before they consume the proceeds.

Prices may rise or price increases may be realised at a high rate but at a rate still lower than had been anticipated and upon which production plans and therefore real investment decisions are made. In such circumstances real business incomes fall and real wage incomes rise. Rising prices generally combined with falling real profits and consequently unemployment, are only paradoxical if it is assumed that production plans are realised instantaneously.Clearly firms and households commit themselves forward in anticipation of price changes and mistakes about future price movements can be made in either direction.

What needs to be emphasised but perhaps has been only implicit is that the gains or losses from unexpected changes in prices are proportional to the length of the contractual period for which prices or interest rates or rents have been agreed. Some exchanges of goods and services for money and money for goods and services are made for immediate delivery and payment. Other contracts include arrangements for delivery on payment or repayment over a period of time. It is the parties to these longer term contracts that are vulnerable to uncertain changes in price. When firms hold inventories of materials to be further processed or finished these stocks are in essence alternatives to longer term contracts to buy or sell. In both cases the firm is implicitly or explicitly taking a view about the future prices of those goods it keeps an inventory of.

In considering the contractual arrangements usually made by households and firms it should be noticed that wage and salary contracts are of a short term nature. Notices of resignation or dismissal may be as short as an hour and mostly no longer than a month. Assuming therefore a competitive market for labour it is most unlikely that wages and salaries will generally lag behind prices in general. In addition Trade Unions often exercise bargaining power where such protection is required. There would furthermore be no necessary reason to associate inflationary periods with increasing degrees of monopoly power of employers or employees. Therefore there are no analytical grounds to expect households dependent largely on wage or salary incomes to suffer as a result of inflation.

Contracts to lend and borrow between households and firms and with financial institutions are often made for long periods of time. The losses from unexpected increases in prices incurred by households dependent on contractually fixed interest earnings can of course be considerable. These losses are obviously a function of the contractual period into which the saver has been locked. The expected losses are immediately reflected in the money values of fixed interest annuities.

Keynes in the Tract was particularly conscious of the losses imposed by the inflation of 1914 to 1922 on what he then described as the great investing class in Britain. The investing class as compared to the business class, as Keynes argued inimitably -

> "The effect of the war, and of the monetary policy which has accompanied and followed it, has been to take away a large part of the real value of the possessions of the investing class. The loss has been so rapid and so intermixed in the time of its occurrence with other worse losses that its full measure is not yet separately apprehended. But it has effected, nevertheless, a far-reaching change in the relative position of different classes. Throughout the Continent the pre-war savings of the middle class, so far as they were invested in bonds, mortgages, or bank deposits, have been largely or enitrely wiped out. Nor can it be doubted that this experience must modify social psychology towards the practice of saving and investment. What was deemed most secure has proved least so. He who neither spent nor "speculated", who made "proper provision for his family", who sang hymns to security and observed most

> straitly the morals of the edified and the respectable injunctions of the worldly wise -he, indeed, who gave fewest pledges to Fortune has yet suffered her heaviest visitations". (p. 16)

Keynes made the all important point at an earlier stage when he remarked that the fluctuations in prices were "visited on a society of which the economic organisation is more dependent than that of any earlier epoch on the assumption that the standard of value, would be moderately stable".(p. 2)

As has been mentioned before, that what was undoubtedly true of Europe after 1914 was much less true of South Africa after 1945 and even less so after 1970. That is not to say that relatively stable prices were less desirable for South Africa but that we, unlike the unfortunate Europeans, would have had no justification for relying on stable prices.

What is suggested therefore is that contractual arrangements are themselves dependent upon confidence or the lack of it in relative price stability. Savers will only lend for long periods if they have confidence in the real value of their savings so committed. Firms will be unwilling to commit themselves forward without confidence in the real value of their investments. What is true of savers and investors will also be true of the financial institutions who intermediate between them. Similarly trade unions and employers would only sign long term agreements if they had confidence about real wage costs and benefits.

The general effect of uncertainty about price movements is that contracts to buy and sell and to lend, borrow and hire will tend to be made for shorter periods. In addition,perhaps more important,attempts will be made to share the burden of uncertainty. Arrangements to lend or borrow will be flexible rather than fixed interest rates. Office, shop or flat rents will be turnover or interest rate linked. The value of rights in pension funds or insurance policies will be dependent upon the performance of the institutions portfolio rather than come in the form of contractually fixed sums. There are in general various methods of maintaining the stability of relative prices when changes in nominal prices are thought likely to bring about changes in real prices.

These are examples of inflation hedging contracts that have evolved in response to inflation expectations and competitive forces. They are all of course common place in South Africa. Cost of living indexed contracts are another example of inflation hedging. Such contracts however assume equi-proportionate changes in prices which may not prove to be the case. Accordingly cost of living linked contracts may prove extremely risky for some sectors of the economy.

Once inflation is anticipated and once contractual arrangements have been modified there would be no reason to expect one side of a contract to continually gain at the expense of the other. Competition and legislation will eliminate predictable

inflationary profits and losses. Inflation however imposes continuous costs on society. These costs become apparent if one considers why long term contracts are ever entered into. The inducement to sign a long term contract rather than contract more frequently, is the consequent savings in transaction costs. Uncertainty about future prices means the application of more resources to the task of negotiating and re-negotiating shorter term contracts. This unambiguously represents a net opportunity cost for society.

The further effect of uncertain inflation is that it undermines the role of money prices as a source of information. If inflation means more uncertainty about actual money prices then more resources have to be devoted to the task of acquiring information about buying and selling opportunities. These costs are certainly not inconsequential but they are also not quantifiable.

Sir John Hicks addressed himself to some of these issues in his paper on the "Quest for Monetary Stability" delivered to the South African Economic Society last year. Hicks pointed to the advantages not necessarily of all stable prices but of particular stable prices. To have prices that

> "are easier to make ... in a way which seems satisfactory (because it seems fair) to the parties concerned if substantial use can be made of precedent : if one can start with the supposition that was acceptable before is very likely to be acceptable again when prices in general are fairly stable, that is often rather easy. The particular prices which result from such bargains may not be ideal from the point of view of the economist; but the time and trouble which would be involved in improving them is simply not worth while. To be obliged to make them anew, and to go on making them anew, as one is obliged to do in continuous inflation, involves loss, direct economic loss, and (very often) loss of temper as well".

The loss of temper caused by increasing bus fares in South Africa provides an eloquent illustration of Hicks' point. In Britain the most difficult re-negotiations are undoubtedly those involving wages.

It may be assumed that inflations are associated not only with more uncertainty about absolute prices but also with more uncertainty generally about relative prices. Of course Hicks pointed out that even in the pre 1914 period there were considerable fluctuations in certain kinds of prices . Hicks is implying that despite all attempts that are made to accommodate it, continuous inflation leaves a residuum of more uncertainty with which firms and households have to cope. This is another highly plausible assumption that is difficult to establish conclusively. If inflation does generate additional uncertainty then it must tend to reduce real investment expenditure

Some indirect evidence of such additional uncertainty may be revealed by the behaviour of interest rates. Nominal interest rates of course rise with the level of inflation. However, as has been widely observed the real rate of interest tends to fall during inflationary periods. Keynes also observed an increase in real rates during deflationary periods. Keynes made the following highly pertinent remarks about the relationship between real and money rates of interest.

> "Thus, when prices are rising, the business man who borrows money is able to repay the lender with what, in terms of real value, not only represents no interest, but is even less than the capital originally advanced; that is, the real rate of interest falls to a negative value, and the borrower reaps a corresponding benefit. It is true that, in so far as a rise of prices is foreseen, attempts to get advantage from this by increased borrowing force the money rates of interest to move upwards. It is for this reason, amongst others, that a high bank rate should be associated with a period of rising prices, and a low bank rate with a period of falling prices. The apparent abnormality of the money rate of interest at such times is merely the other side of the attempt of the real rate of interest to steady itself. Nevertheless in a period of rapidly changing prices, the money rate of interest seldom adjusts itself adequately or fast enough to prevent the real rate from becoming abnormal. For it is not the fact of a given rise of prices, but the expectation of a rise compounded of the various possible price movements and the estimated probability of each, which affects money rates; and in countries where the currency has not collapsed completely, there has seldom or never existed a sufficient general confidence in a further rise above 10 percent per annum, or to fall below 1 per cent. A fluctuation of this order is not sufficient to balance a movement of prices, up or down, of more than (say) 5 per cent per annum - a rate which the actual price movement has frequently exceeded." (p. 19 - 20).

The decline in real rates of interest may reflect the effects of a decline in real investment expenditure in response to the extra uncertainty generated by inflation. Similarly the same uncertainty may induce savers to save more rather than less despite the decline in the real rewards for saving.. The precautionary motive for saving may increase by more / than enough to offset the income effect. A marked increase in personal savings has for example been rated in Britain recently. It should be noted that savers are price takers with respect to interest incomes. The nominal rate available may well represent a negative real return but it may still be the best they are able to do with their savings. The alternative is more real investment for which households mostly lack the specialised knowledge and risk preference.

One other relative price we have not so far said all that much about is the foreign exchange rate. In the long run the exchange rate must adapt to maintain the relationship between domestic and foreign prices. As suggested before in a fixed exchange rate system money and therefore domestic prices adapts to the balance of payments. If monetary policy takes an independent course then the exchange rate adapts itself to the relative trends in prices. In a fixed exchange rate system

interest rates like other prices tend to change similarly in all countries in the fixed exchange system. In a flexible exchange rate system differences in interest rates reflect implicitly the direction of expected exchange rate movements as long as foreign borrowing and lending remain alternatives. Of course flexible exchange rates imply uncertain exchange rates and therefore another important source of instability in relative prices with which enterprises have to cope. In the long run foreign borrowing would be no more risky than domestic borrowing providing domestic prices and therefore the nominal money profits from investment increased at the same rate as the price of foreign exchange. This as suggested is highly likely unless substantial structural change occurs to alter relative exchange rates. However, in the short run this is by no means always the case. Forward cover is the obvious form of insurance the net cost of which is reflected in interest rate differential.

It has been argued above that because actual inflation may prove higher or lower than expected real profits generally may increase or decrease over phases of inflationary periods. Moreover because of inflation proofing and competition it is unlikely that profits in some sectors will rise permanently relative to other sectors. Unless of course these higher permanent profits reflect inflation generated uncertainty. The fate of some, one time, favourite inflation proof investments in land or fixed property or indeed equities bears testimony to this proposition in South Africa.

However because relative prices may fluctuate substantially inflation does generate large windfall profits for some particularly perhaps in the initial stages but also after inflation has become well established. The effect of conspicuous windfall profit and of course the resentment of higher prices charged by business inevitably calls into question the legitimacy of business profits. We could do no better than to quote Keynes on the anti-business syndrome.

> "But if the depreciation of money is a source of gain to the business man, it is also the occasion of opprobrium. To the consumer the business man's exceptional profits appear as the cause (instead of the consequence) of the hated rise of prices. Amidst the rapid fluctuations of his fortunes he himself loses his conservative instincts, and begins to think more of the large gains of the moment than of the lesser, but permanent, profits of normal business. The welfare of his enterprise in the relatively distant future weighs less with him than before, and thoughts are excited of a quick fortune and clearing out. His excessive gains have come to him unsought and without fault or design on his part, but once acquired he does not lightly surrender them, and will struggle to retain his booty. With such impulses and so placed, the business man is himself not free from a suppressed uneasiness. In his heart he loses his former self-confidence in his relation to society, in his utility and necessity in the economic scheme. He fears the future of his business and his class, and the less secure he feels his fortune to be the tighter he clings to it. The business man, the prop of society and the builder of the future, to whose activities and rewards there had been accorded,

> not long ago, an almost religious sanction, he of all men and classes most respectable, praiseworthy and necessary, with whom interference was not only disastrous but almost impious, was now to suffer sidelong glances, to feel himself suspected and attacked, the victim of unjust and injurious laws - to become, and know himself half-guilty, a profiteer.
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> No man of spirit will consent to remain poor if he believes his betters to have gained their goods by lucky gambling. To convert the business man into the profiteer is to strike a blow at capitalism, because it destroys the psychological equilibrium which permits the perpetuance of unequal rewards. The economic doctrine of normal profits, vaguely apprehended by everyone, is a necessary condition for the justification of capitalism. The business man is only tolerable so long as his gains can be held to bear some relation to what, roughly and in some sense, his activities have contributed to society". (p.23 - 24)

It is perhaps worthwhile emphasising two important points made by Keynes. Firstly his understanding of profits as the consequence and not the cause of higher prices and also his reference to popular remedies that "become not the least part of the evil"..

Governments appear to find the urge to implicate private business and trade unions in inflation irrestible.

Price and wage controls are undeniably popular. However, the case against wage and price controls seems even stronger during inflationary periods than it is generally. Inflationary periods call for more frequent adjustment to prices and wages in order to maintain the appropriate structure of relative prices. Price control mechanisms are inevitably time consuming and since some firms' costs control other firms' prices, it merely delays the inevitable. Price controls further more remove all competitive incentives to hold down prices. There are no grounds for believing that inflation increases monopoly powers. Frequent changes in prices charged by monopolies, natural or contrived, are much resented but such increases may be no more than the attempt to maintain real profits in the face of increases in costs.

The incidence of price and wage control is highly arbitrary. Some prices are far more vulnerable to price controls than others. One of the likely effects of price control will be to redirect investment expenditure to less price control vulnerable sectors. Not the least likely prices and wages to be held back by price and wage controls are those for which governments are directly responible. The operating deficits of public corporations tend to mount as price increases are delayed. These deficits are then met by transfers from general revenues or by money creation with the effect of subsidising the consumer at the expense of the taxpayer. As such it represents a highly arbitrary method of income redistribution.

The discussion so far has been couched in deliberately general terms. When one turns from the general to the specific one finds that it is the non-quantifiable effects of inflation that one is able to generalise about while the easily quantifiable effects of an inflationary experience provide few grounds for generalisation.

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