IS THERE TRADE OFF BETWEEN UNEMPLOYMENT AND INFLATION

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The value of money is decided by what can be bought for it. Changes in the value of money can be seen through changes in the general price level.

When we talk about inflation, we refer to an increase in general price level, Great wars are always periods of inflation and this was true for the Napoleonic wars as well as for the two world wars of this century.

In the last few years inflation has been accelerating at an alarming rate in most of the countries of the non-communist world.

The table below shows how the rate of inflation rose during recent years.

TABLE 1. Average Ratesof Inflation for Five Countries: 1953-66 and 1967-74

	U. S	U. K.	GERMANY	FRANCE	JAPAN
1953-66	1. 48	3. 4	2. 23	3. 94	3. 85*
1967-74	5. 36	7. 5	4. 27	6. 48	7. 51

*Source: U.N. Statistical Yearbook, other sources: 1953-60, The Problem of Rising Prices, Fellner et al;, OEEC, 1961; 1960-74, OECD, Main Economic Indicators.

In 1974 Japan experienced a 23% inflation and in 1975 Britain experienced one of 24%. During the Great Depression, Britain, America and Germany had massive unemployment and this led J.M. Keynes to write his famous book 'General Theory of Employment, Interest and Money'. His theory had pinpointed the sources of widespread and prolonged unemployment and had come to regard the maintenance of full employment as the over-riding objective of economic policy.

To achieve this policy, spending must be stimulated by government whenever unemployment appears to be rising. His theory deeply influenced economists and politicians. As a result of this influence, public sector spending has expanded in many countries after the war. At that prticular time inflation was thought tolerable, especially by keynesians, in order to maintain full employment.

A low rate of unemployment was achieved during '50s and 60's. However after 1967 the rate of inflation took a marked turn for the worse. Also the rate of inflation has risen since 1966 in Britian at the same time. There seem to be no trade-off between inflation and employment prices and wages begin to rise before any identificable point of full employment, unlike in a classical case. The British

Government now employs 10 times more economists than 10 years ago to solve this problem.
As a result the question came up as to what remedy the government should take.

In an attempt to categorize the different approaches to the analysis of inflation, there are two polar extremes; namely, the monetarist and cost push theories.

The monetarist school believes that inflation can be explained in terms of supply of money largely from the basis of part experiences.

The classical example of this relation is the inflow of gold and silver into Europe as a result of the Spanish conquest of the America. Germany before the war is another example of the relation between inflation and the supply of money.

The more recent example is Chile and Brazil. According to this school, inflation can only be brought under control by determined action by the goverment to restrict increases in the money supply. The other extreme believes that the fundamental sources of inflationary pressure have nothing to do with basic economic factors. They believe that the cause is primarily the result of sociological and political forces which, by implication, economics is incapable of analysing. The extreme cost-push school is often Marxist.

According to this view, such study as sociological study of inter-class or inter-group conflict for increased shares in national income must be engaged in order to tackle inflation. For instance, what is the fair differential between the wage of a bricklayer and a university lecturer. The cost-push school recognises the importance of the role of trade unions whereas the monetarists (certainly Proffessor Friedman) think that trade unions should not be blamed for the cause of inflation. The cost-push school thinks that analysing the action of the central bank or the Treasury does not help to solve the problem.

On the contrary, Moneterists believe that the government is the magnitude of the cause of inflation.

The school of thought which comes in between these extremists is the Keynesians. Keynes regarded changes in the stock of money as of minor importance in times of employment. His disciples went much further then the master and the view became wider spread that money does not matter.

However, post-Keynesians believe that money matters. Probably the revival of monetarism influenced this view to a certain degree in my opinion. It is difficult for me to define where Keynesians stand between these two extremists. According to various literature, Keynesians are treated slightly differently. In my opinion, it depends on each Keynesian. What is common among Keynesians is the belief that the sources of inflation cannot be verified by empirical methods alone.
They advocate either price and income policies or these policies together with monetary control.

I have now outlined the different schools of Thought and I would like to describe theories which relate to the problem of inflation and unemployment.

Pre-Keynesian views on the origins of inflation and unemployment

Up to the publication of J. M. Keyne's 'General Theory of Employment, Interest and Money', Irving Fisher's 'Quantity Theory of Money' dominated economic thinking. Fisher's equation is expressed as follows :—

MV=PY (i.e., money supply times V equals price level times real income)

V stands for the average number of times a unit of money turns over to effect the volume of transactions.

This says nothing about the factors that might produce a change in the stock of money or about the effect of such a change.

When M changes — extreme and rigid disciples of Keynes consider that such a change might be absorbed entirely in V without affecting prices or output at all.

Contrarily, extreme quantity theorists consider that the change in M might be entirely absorbed by prices without affecting velocity or national income.

Both these extremists' views are not quite right in my opinion, because when M changes, all the variables (V, P and Y) may change at the same time and M change can be reflected by partly V, partly P and Partly Y.

Samuelson writes in his book that :

"If 1975 M is nine times 1939 M, then an adherent of what can be called the "CRUDE Quantity Theory of Money and Prices" would have to predict that the 1975 price level P should be almost exactly nine times 1939 P. The fact that prices have only quadrupled in that period would be a refutation of this crude notion that the price level moves in direct proportion to the money supply."

I think that Samuelson must have concluded that the M change must reflect only P change, otherwise the equation must be a crude one. Indeed, it is a crude equation because when M changes, there are 3 variables. From 1939 to 1975 real national income or productivity must have risen and velocity may have increased to a certain degree. Therefore, the M rise by 9 times between '39 and '75 was not to be absorbed entirely by a price increase of 9 times. It is still a crude equation but on the other hand it is impossible, in my view, to make an equation which relates M accurately with P change due to variables such as V, P, Y and others.

The equation can explain why the monetarists advocate that an increase in the Quantity of money, unless matched by an equal increase in the quantity of goods, will mean an increase in the general level of prices.

However, Keynes shifted emphasis from the relation between the stock of money and the flow of income which was at the heart of the quantity theory to the relation between flows, especially between the flow of capital expenditure and the flow of income.

I would now like to go to the Keynesian demand management theory.

Keynes and the principle of effective demand.

Keynes traced the sources of unemployment to a deficiency of effective

demand. He considered that if only economic agents could be induced to spend more, output would rise leading to a rise in employment. According to Keynes's theory, the level of output is determined by the effective demand for that output.

In his simplified treatment of the composition of effective demand, Keynes distinguished between two separate elements ;

Consumption (C) and investment (I)

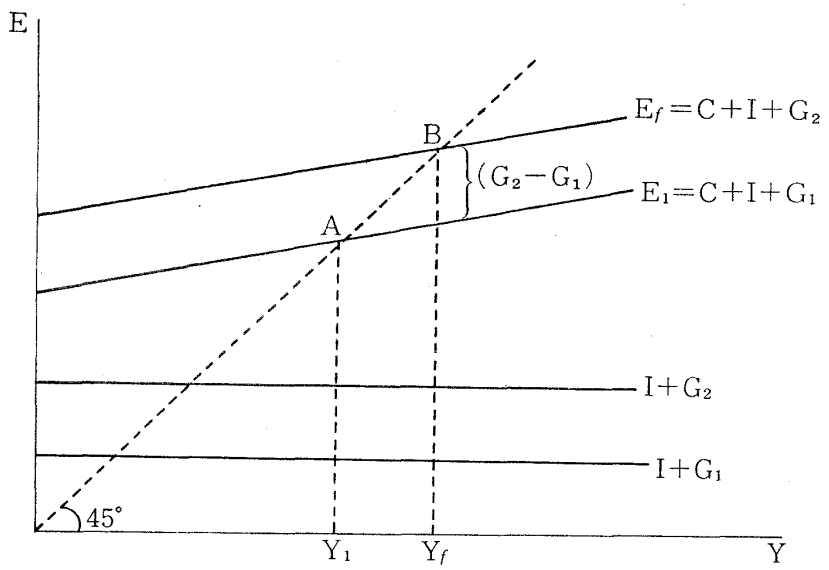
Effective demand (E) is the sum of the amount spent on consumer goods and services and the amount spent on investment goods, i.e., $E=C+I$

In terms of a Keynesian model, full-employment can be achieved in two ways ; either by raising the level of governments expenditure to augment private investment or by reducing the general level of taxation in order to stimulate consumer expenditure. Both types of policy come under the general heading of fiscal policy. Fiscal policy is the deliberate manipulation of the size of the government budget deficit (i.e. the difference between the amount it spends and the amount it collects in taxes) in order to achieve some economic objective such as higher employment or lower inflation.

As early as in 1929, seven years before the publication of the GENERAL THEORY, Keynes had influence with Lloyd George to ensure that the Liberal party programme in the 1929 election consisted chiefly of promises of higher public expenditure to encounter unemployment. At that time his idea was largely ignored since he could not provide a theoretical justification.

However, by raising the level of public expenditure by the appropriate amount, the government will be able to play an active role in raising the level of effective demand, output and employment.

The graph for this explanation is shown as follows : -



Like government expenditure, a tax cut will raise national income because such a policy will result in more money in consumers' pocket.

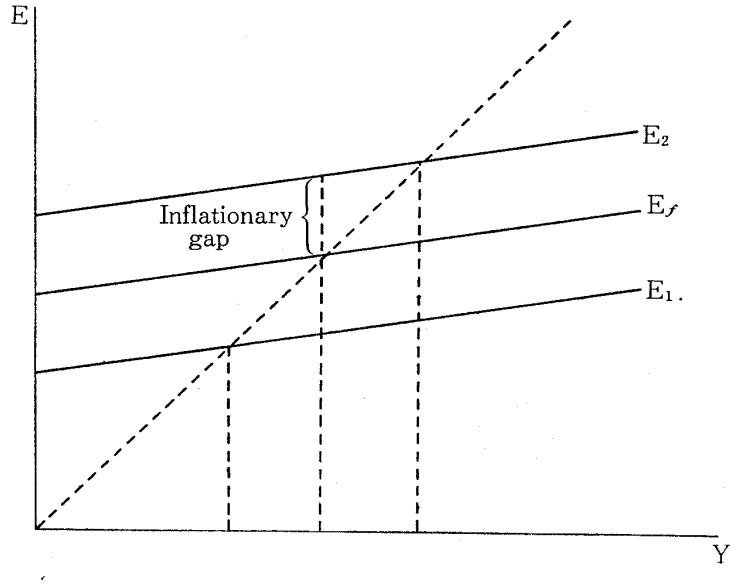
For Keynesians, fiscal policy is the most important tool for achieving full

employment. The market cannot be relied upon to perform this function as classical economists believed. Either the market mechanism does not work at all, or it works much too slowly to be of any practical assistance to policy makers.

Keynes wrote his famous pamphlet called 'How to Pay for the War' in which he showed that the effective demand could be adapted to explain not only the problem of unemployment but also the phenomenon of inflation.

If the economy starts with unemployment at a level of Y_1, on the graph below expansion in the level of government spending indicated by the upward displacement of the expenditure function will initially result in a beneficial reduction in the unemployment rate, the deflationary gap is now eliminated by increased injection. On the other hand, once all of the unemployed have been absorbed into the productive labour force, further increase in government spending (more injection) will impose excessive strain on the productive potential of the economy.

If the rise in government expenditure raises the expenditure function to E_2 on the graph, this is an unattainable output level at least in the short run and this is therefore an excess demand for the output of the economy. This is the root cause of inflation, which can only be brought under control through a sustained demand policy. On the graph, expenditure ought to be brought down from E_2 to Ef to eliminate the inflationery gap.



Keynesians believe that a policy of demand restriction as a weapon against inflation and fiscal policy of the manipulation of government expenditure and tax is the most important strategy of demand management.

The policy of demand restriction is not only a policy against inflation. Most (?) Keynesians and certainly Keynes himself, would recommend a policy of prices and income restraint as a necessary tool for demand restriction.

I have so far excluded international trade and would now like to consider how trade affects national income.

Export is considered as an injection which increases national income, whereas

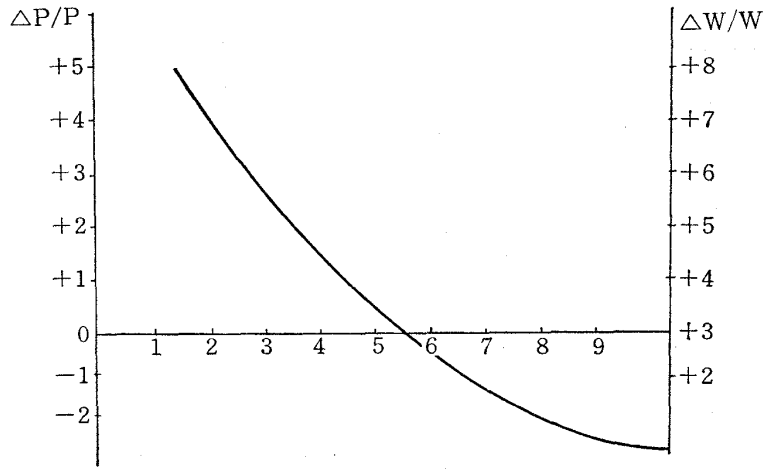
import reduces national income.

If imports exceed exports, it means that the national income is falling.

There are two measures to correct this imbalance ;

1) Devaluation makes import goods more expensive and therefore reduces import, but countries which depend on importing raw materials suffer from cost push inflation.
2) Import restriction is favoured by Keynes and his followers but this can cause retaliation by trading partners. The Cambridge Economic Group, for instance, advocated import restriction on T.V. whereas monetarists like Prof. M. Friedman favour free trade.

I would now like to describe the Phillips curve which explains trade-off between inflation and full employment as shown below :

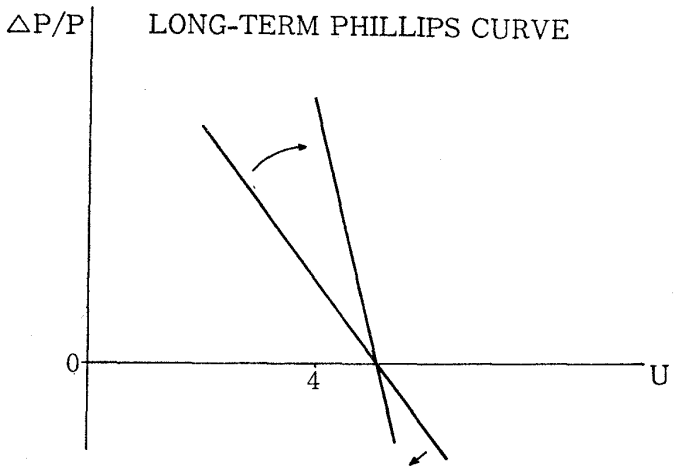


The Phillips curve was drawn on the basis of empirical testing. According to this curve, a 3% or higher unemployment rate will keep the rate of inflation at 4% or below.

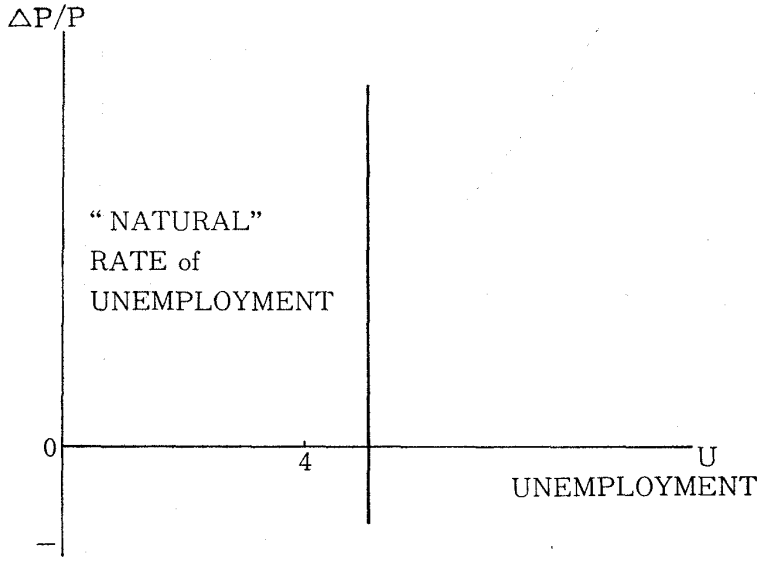
During recent years, many Western countries have experienced this curve to twist higher to the right.

In Britain after about 1968, both the rates of inflation and unemployment rose simultaneously. Friedman denied that the Phillips curve was anything other than a purely transitory phenomenon. According to him, Phillips error consisted of confusing the money / wage rate with real wage rate. Instead of measuring the rate of change of the money / wage rate on the vertical axis, Phillips should have measured the rate of change of the money / wage rate minus the anticipated rate of changes of prices.

W. Fellner and H. Wallich of Yale, M. Friedman of Chicago and E. Phelps of Columbia all suggested that "the Phillips trade-off is based only on the illusion of unanticipated price / wage inflation. Once the system settles down to any constant rate of price / wage inflation, people will come to learn the fact and to expect it in future. So you will then have just as much excess wage pressure over that constant rate as you had when prices were stable".



There is a 'natural rate of unemployment' defined by a vertical long run Rhillip's curve below.



If the unemployment level is temporarily below the natural rate, the short run curve will twist upwards indefinitely and the price rise will accelerate. If the unemployment level is temporarily above the natural rate, the short run curve will twist downwards indefinitely and the price rise will decelerate. In order for people to be adjusted to the rate of price change, so that it will not be accelerating or decelerating, the curve will have to be a vertical line.

These writers conclude that "since you will be stuck with the natural rate of unemployment in the long run, the macro managers should keep demand growing at only the rate of real growth of the system - say 3 to 4% per year so that prices will be steady. To reduce the unemployment's natural rate, policies other than macro fiscal and monetary measures are needed such as repealing the minimum - wage law or restrictive union practices".

Whether or not this assertion is realistic, the data of experience are not available. In my opinion, the reason for the Phillip's curve twisting clockwise or standing vertical is the fact that a better welfare society provide better condition

for unemployed workers. The consequence is to have unemployed on one side and labour shortage on the other. Unemployed works have and will have purchasing power which did not happen before and the limited output is chased by almost the same amount of money regardless of unemployment rate.

I have nothing against welfare society but I think this will cause the Phillip curve to twist clockwise or to stand vertical. For example, in Denmark, if you become unemployed, you will still receive 90% from Social Security of your previous salary. In this system there are always certain number of people who wish to be unemployed rather than take alternative jobs and, in my opinion, the country will experience the natural rate or near the natural rate unless the agricultural products they produce increase to create wealth in order to meet the demand for expenditure in general. (It does not have to be agricultural products but any of the country's output in general. The country does not have to product more agricultural products in terms of quantity but in terms of monetary value, demand and supply.)

If a cheap money policy is adapted such as in Britain during the Barbar boom when the supply of money increased by 28% between 1971 and 1972, a country will probably experience the natural rate of unemployment. This monetary expansion will take a few years to affect the system according to Monetarists. Britain experienced its natural rate between 1973 and 1974. I regret I have not got the data for 1975.

So far I have described briefly theories related to the topic. I would now look at these theories closely and make a comparison between them. I would also like to discuss international economics as they relate to the topic.

After the war the western countries experienced the adoption of Keynesian economy and, as a result, the size of governemtn increased in terms of expenditure and tax revenue. They experienced, both a relatively steady economy and inflation and unemployment at the same time. (no trade-off between these two). As for a steady economy, the question to my mind, lies in whether it was because of Keynesian economics or the war or the fact that we did not make any major mistakes after the war. I tend to agree with M. Friedman that we did not make major mistakes such as during the 30's when the U.S. government reduced the quantity of money by a third within 3 or 4 years and as a result the inevitable bankruptcy happened. Germany experienced a great increase in the supply of money.

However, during recent years, the failure of successive governments in different countries to adopt Keynes' demand management policies and consequently caused disillusionment with the policy because of high inflation and concurrent unemployment rates.

Governments adopted a cheap money policy of printing money partly because of Keynes' theory.

According to Friedman, governments ought to stop playing God, pretending that they can fashion for themselves an employment policy which is independent of the latent forces of supply and demand within the labour market.

Since Keynes considered fiscal policy the most powerful policy, it is a point of some contention whether Keynes would have disagreed with this diahnosis. Nevertheless, it should be remembered that full employment of Keynes, as for Friedman, occurs where there is overall equality between the supply of and the demand for labour.

The use of fiscal policies in maintaining levels of employment in excess of Le in the graph below can only lead to a situation of what Keynes called 'true inflation! I think that today's inflation is somewhat different from Keynes' definition.

However, it must be disturbing for Keynes to know how his ideas have been interpreted in certain political circles as supporting indiscriminate expansionism and ever widening powers of state intervention in everyday economic life.

In fact Keynes loathed inflation as much as Friedman does and would have been one of the first to advocate contractionary policies to remove the threat of inflation. It is a pity that his theory has been misinterpreted to a certain degree.

Contrary to Keynes' assertion that fiscal policy is the most important tool for demand management. Friedman considers the monetary policy the most vital tool for demand management. Friedman's objectin to Keynesianism is as follows : -

(a) the most important determinat of aggregate spending is the supply of money
(b) a constant rate of increase in the supply of money, unemployment will eventually settle down at its natural rate and the rate of inflation will ultimately be equal to the difference between the rate of increase in the supply of money and the rate of growth of output.

According to Friedman, the only means by which the government will be able to maintain unemployment below the natural unemployment rate for considerable periods of time, is through a policy of over-accelerating monetary expansion.

Increases in the supply of money generate much more pronounced increases in aggregate demand than do equivalent increases in the size of the budget deficit.

Suppose that the economy starts with the natural rate and the position of stable prices. An increase in money supply stimulates expenditure on goods and services and consequently unemployment will temporarily fall below its natural rate. Thus prices will rise until the demand for money once again equals the supply of money. Once this position of monetary equilibrium has been restored, the excess demand will have risen to its natural rate. (We are assuming here that inflationary expectations are not generated to any appreciable extent as a result of price rises). But if the government is determined to bring the unemployment below the natural rate, Friedman answers that only by maintaining persistant excess demand which requires the continual issue of new money. Therefore repeated injections of new money are necessary if this policy of overfull employment is to be successful. This will result in hyper-inflation and a total collapse of the currency. The cure for inflation from monetarists' opinions are :

1. Government balances budged by 1) increasing taxation. 2) cutting spend-

ing on roads, health services, schools etc ; and stops printing money. This is to reduce the government deficit and stop creating new money.

2. Less money in people's pockets, and they cut their spending.
3. Companies meet drop in demand. First by cutting output and laying off workers, and second by cutting prices.

The effect of such a policy will be that inflation is curbed but unemployment will be high during the period of adjustment. Therefore during its adjustment, the unemployment above natural rate will occur. In Keynesian terms 'underutilizing capacity'.

Monetarists do not stop at recommending a policy of strict control over the supply of money. They also proceed to condemn all other methods of reducing the rate of inflation, most notably prices and income policies. This is quite understandable since monetarists generally reject any government intervention to disturb the virture of market force. The last Conservative government practiced a price and income policy during 1972 and 1973 and was at the same time, printing money.

For monetarists, these policies did not seem to work at all. According to Friedman, the government is creating inflation and he thinks that inflation is the taxation which has never passed parliament. In my opinion, during the period of high inflation, it is very difficult for a private business to survive because any profit will be eroded by tax and inflation.

However, when Keynesians refer to monetary policy, they have in mind a technique of control known as open-market operation. It is this form of economic management which has caused so much disagreement between the monetarits and Keynesians.

According to Keynes, increases in the supply of money are associated with reductions in interest rates ; lower interest rate induce entrepreneurs to invest more ; and the higher flow of investment leads to a multiple expansion in aggregate demand ; this in turn will lead either to higher real income or higher prices, depending upon whether the economy started off in a position of under-employment or full employment.

According to Friedman, an increase in money supply lowers interest rate for about six months but afterwards this increase of money supply results in higher interest rate as seen in Brazil and Chile. The effect in real life is probably somewhat different from the Keynes' logical theory as will be illustrated by three graphs ("Liquidity Preference Schedule")

In Samuelson's textbook, the author explains the Keynesian model using three graphs and concludes ;

M down i up I down = GNP down down.

In my opinion, Keynes' theory omits to consider the real value of G.N.P. Indeed, the monetary valee of G.N.P rises by an increase in money supply but I do think that society will be better off after such a rise. The Keynesian theory of achieving full-employment by using graphs i.e. 45° graph has also, in my view,

omitted the real value of national income as a result of Keynesian demand management policy. It could easily give the impression that real national income can be manipulated by such a policy. However, according to Keynesians, aggregate demand consists of consumption, investment and government spending. Whereas fiscal policy can be used to regulate all three components of demand, monetary policy can only affect the level of investment, because monetary policy for Keynesians refer to the rate of interest rather than money supply.

During recent years, many governments adopted the theory of a 'built in stabilizer' in order to achieve full employment. As a result, a cheap money policy is maintained to pay for huge deficits. According to the cast-push school, such a policy is necessary when, for example, a country needs hospitals or schools. In my opinion, since such a policy causes high inflation, it is at the expense of political stability ; for instance inflation and therefore more unemployment in the long run. For example, insist on such a policy, it is, a bad tuning of economy in my view.

However, the cost-push school inserts thàt a wage rise(s) calls for more supply of money. This is quite the opposite view from monetarists. Both Keynesians and cost-psuch school insist that inflation can be cured by persuading unions. Whereas monetarists adjust the rate of money supply to output and go fishing.

However, post-Keynesians believe that money matter, so they tend to use both fiscal and monetary policies to fight inflation. When we refer to a world-wide inflation, it is possible to consider the roots of inflation, like inflation in a closed economy.

To start with, one compares any government with U.S.A. Since the dollar is accepted as international currency, America can pay her deficits by printing money just like any government can do. The inflationary gap will remain as far as a country has a surplus with U.S.A. and U.S.A prints money to pay for the deficit.

These dollars expanded money supply in Europe — only Germany and Holland made any attempt to isolate their effect by revaluing their currencies and today these countries have relatively lower inflation. Japan, for instance, kept buying dollars until the "dollar shock" or the "Nixon shock" came. As a result, Japan lost money on exchange market equivalent to the building of two motorways from the South to the North of Japan. However, it was not Nixon who decided to print new money to pay for the Vietnam war. It was L.B. Johnson who contributed to the U.S. deficit despite some economists advice, he did not raise tax in order to fight the Vietnam war.

One advantage for Britain of a sysem of floating exchange rates is that it is protected from the spill-over of inflationary pressure from America which would occur under a system of fixed or quasi-fixed exchange rates. Furthermore, it brings home to the American authorities the need to put its own house in order for it is now unable to export inflationary pressure to Britain through its balance of payments deficit.

The advocates of flexible exchange rate argue that one of the principal

advantages of a system of floating exchange rates is that it lifts the shadow of the balance of payments from the arena of domestic economic management. Many commentators believe that, if an open economy is to enjoy the benefits of full employment while at the same time being deprived of the option of altering its exchange rate, the price may be a prolonged balance of payments deficit, since the flow of imports which would be necessary to maintain output at its full employment level would chronically exceed the flow of exports from that economy. Everytime the authorities attempt to raise the level of economic activity and reduce the unemployment rate, the balance of payments runs into deficit, which in turn leads to the reversal of the expansionary policies. The balance of payments has therefore often been regarded as a barrier to full employment. Indeed this was the view held by Keynes in the early 1920s when he was arguing against the revaluation of sterling against the dollar. A flexible exchange rate removes this barrier by allowing the currency to float downwards as full employment is approached, thus preventing a widening of the gap between imports and exports.

It is only a misguided attempt to maintain an overvalued currency that introduces any conflict between a balance of payments equibrium and full employment.

Although the vast majority of monetarists were in favour of the flexible exchange rate, an economist such as Hayck, once Keynes' former sparring partner, argues vigorously in favour of the fixed exchange rate system.

Samuelson says in his book :

> "Thus, there are indeed grave deficiencies in present systems of rent control Again, 20 years ago, Friedman's was a lone voice crying in the wilderness that the pegged exchange-rate system of Bretton Woods was fatally flawed at its core in a world where countries will not inflate and deflate according to the old dictates of the automatic gold standard."

Contrary to the monetarists' view, the cost-push school maintain a fixed exchange rate. Their hypotheses are as follows:—

(a) The increase in the price of imports resulting from a depreciation does not lead to import substitution to any appreciable degree, so that, on the import side of the coin, the principal effect of a downward aloat is an increase in the price level. In other words the relative-price response of the flow of imports to a change in the exchange rate gains little consideration.

(b) workers are unwilling to allow their real wage rate to fall to its market-clearing level so that the rise in the cost of living produced by effect (a) is incorporated as a bargaining counter in the next wage claim. A higher rate of inflation thus ensues.

There is vitually no empirical evidence which can be cited in support of either of these subsidiary hypotheses. Nevertheless the advocates of the cost-push hypotheses have recommended, firstly, a prices and incomes policy to contain inflationary pressure ; and, secondly, import controls to rectify the

balance of payments (this remedy for the balance of payments is particularly popular with the Cambridge Economic Policy Group).

CONCLUSION

In order to cure inflation to an acceptable level, it is necessary to have a constant increase of money supply. Both monetarists and Keynesians agree that a high level of inflation leads to a high unemployment level.

We have learnt from past experience that massive fluctuations of money stock causes economic undertainty. In this sense, it may be a good idea to adopt the policy of automation. I feel that by adopting this policy we can at least avoid the major mistakes.

Keynesians probably do agree with such a policy but they do not consider it to be of a solution. In my opinion, Keynesians follow their master's theory too blindly and overlook the importance of monetary policy and mircro economics. Many textbooks illustrate fiscal policy logically as to how such a policy influences greatly full employment and inflation, but I feel that fiscal policy omitted to explain the important effect of price changes in relation to income changes.

Keynesians look for fine tuning by using fiscal policy whereas monetarists believe in monetary policy leaving the rest for the free market to sort out.

It is often hard for economists to accept 'laissez faire' economicsto solve in unemployment problem especially in considering mass unemployment. I think that an income policy is not necessary as a cure of inflation and the wage level will be sorted out in time by a free market mechanism providing that the money supply is kept tight.

I consider that private saving and private investment are as effective tool as government expenditure through taxation and by printing money in order to enjoy a steady price rise and full employment within a huge government budget, it seems to be difficult to achieve these targets.

In Britain the man in the street pays about 35% tax and in Japan it is about 12%. I do not consider that people are getting value for their money. Japanese people save an average 20% of their disposal income. I believe this is the second highest in the world and the rate of investment and productivity are also outstandingly high. I think that the fine tuning of economy must consist of policy to induce people to save rather than spend, especially in a country like Britain and Japan which largely live on exporting manufactured goods. However, identical theories cannot be adopted in different countries and they are crude theories in practice because of the many variables in the economic system.

Finally, I feel that Keynesians followed too blindly their master's theory of demand management and omitted to consider seriously how to supply goods cheaply. I feel sure that Keynes himself would not agree with his followers, if he lived today.