Discuss the relationship between unemployment and inflation. To what extent is the Phillips curve still relevant?

Professor Phillips, using figures from the 1870s to the 1950s showed that there was a relationship between unemployment and inflation, and u sing the data collected, modelled this relationship on a curve, which became known as the Phillips curve. The basic theory was that attempts to reduce unemployment would lead to a rise in the general price level, or inflation, and vice-versa. The Phillips curve is shown below:

Inflation and unemployment both have a negative effect on the economy, if either factor is high. Both factors have a negative effect on economic growth.

Unemployment is the existence of a section of the labour force, who are willing and able to work but who, for some reason, are unemployed. In the UK unemployment is measured using two methods: The Claimant Count and The Labour Force Survey. Inflation is a sustained rise in the general price level, or a sustained fall in the purchasing power of money. Inflation is measured using the retail price index (RPI).

There are three main theories on the relationship between unemployment and inflation.

The monetarist theory is based on the adaptive expectations hypothesis and the accelerationist theory. The adaptive expectations hypothesis is the theory that people will base their expectations on inflation on past inflation rates and is modelled by the equation:

$P^e_t = P_{t-1}$, which is that the expected rate of inflation this year (P^e_t) will be the rate that inflation actually was last year (P_{t-1})

The accelerationist theory of inflation is shown in the diagram below.

The above diagram shows that in order to keep unemployment below the initial equilibrium rate, prices must go on accelerating each year. Thus the adaptive expectations theory is sometimes known as the accelerationist theory. The more the government reduces unemployment, the greater the rise in inflation that year, and the more the rise in expectations the following year, and hence the more rapidly price will accelerate. In the long run therefore, the Phillips curve will be vertical at the rate of unemployment that monetarists call the natural rate (U_n). It is sometimes referred to as the non accelerating rate of unemployment or NAIRU. The implication for government policy is therefore that expansionary monetary and fiscal policy can only reduce unemployment below U_n in the short run. In the long run, the effect will be purely inflationary. Therefore the monetarist position is that in the short run expansionary monetary policy will bring about a temporary reduction in unemployment. To achieve a permanent reduction you must use supply side policies.

The New Classical view is that not only is the Phillips curve vertical in the long run, but also in the short run, and that there is no place for demand management policies because even in the short run the only effect of an increase in aggregate demand will be a rise in prices. The two assumptions of this model are that wages and prices are flexible, and that expectations are rational. The new classical economists believe that the markets will clear instantaneously and that there is no disequilibrium unemployment. All unemployment is therefore 'voluntary unemployment' as people choose not to take jobs due to a lack of incentives to do so. Rational expectations are expectations that are based on the current situations. These expectations are based on the information at hand. While this information may be imperfect and therefore people will make errors, these errors will be random. For new classicists, the problems of inflation and unemployment are totally separate. Inflation is caused by excessive growth in the money supply and should be controlled by monetary policy. Unemployment should be at the natural rate and should be reduced by supply side policies.

The third theory on the relationship between inflation and unemployment is the modern Keynesian position. Modern Keynesians incorporate expectations into their analysis and they see an important role for cost-push factors in inflation. Like Monetarists, they accept that equilibrium unemployment has increased since the 1950s and 1960s. An increase in cost push inflation will shift the Phillips curve upwards. A moderate deflation will then bring increased unemployment as well. If unions then seek to gain a target increase in real wages, without taking into account the real growth of the economy, this will lead to higher cost push inflations and the higher level of unemployment. The growth in equilibrium unemployment has been caused by more rapid changes in technology, greater international competitiveness and more rapid changes in demand patterns. The effect of this increase in equilibrium has led to the Phillips curve shifting to the right. Demand-deficient unemployment may persist because real wage rates may be sticky

downwards, even into the longer term. This stickiness may be the result of real wage rates being above the market clearing wage. If expectations are incorporated into Keynesian analysis, the Phillips curve will become steeper in the long run. It will not become vertical, however since people will expect changes in aggregate demand to affect output and employment as well as prices. If people expect a more rapid rise in AD to be sustained, firms will invest more, thereby reducing unemployment in the long run and not just increasing the rate of inflation. The long run Phillips curve will thus be downward sloping. The short and long run Phillips curve may be kinked. Reductions in real aggregate demand may only have a slight affect on inflation if real wages are sticky downwards.

From about 1966 the Phillips curve relationship seemed to break down. The UK and many other countries in the western world too, began to experience growing unemployment and higher rates of inflation as well. From 1993 -2002 the Phillips curve has been horizontal with ever falling unemployment and stable inflation. The explanation for this is as follows. NAIRU (non accelerating inflation rate of unemplo yment) depends on institutional factors in economy e.g. strength of trade unions, flexibility in labour markers, labour mobility, social security system, education and training, and the taxation system. These are called supply side factors. Improving the s upply side reduces NAIRU so unemployment can fall while inflation stays stable. This is shown in the diagram below.