5. Trade-off Between Inflation & Unemployment

Q:1 Bring out the Relationship between inflation and Unemployment in the Short-Run? [OR] Explain the Trade-off between inflation and Unemployment?

(A) Introduction :- Inflation and Unemployment are two important indicators to study economic Performance.

" A Continuous increase in the general Price-level is called inflation."

Inflation Rate shows the Percentage change in the Price Index from the Previous Period.

" Full-Employment is a situation where all those willing and able to work at the existing wage-rate are employed."

To achieve Full employment is the main Objective of every country because if Large number of People are Unemployed then it Create various economic, Social and Political Problems.

(B) Philip-Curve - Trade-OFF Between Inflation and Unemployment :-

Prof. A.W. Phillips - a British economist develop

Study of wage-behaviour in the United Kingdom for the years 1861-1957 and he gave the report in 1958. According to Phillip- there is inverse relationship between - Rate of employment and Rate of Inflation. This inverse relation shows Trade-off between Inflation and Unemployment in short-run.

(B) Phillip Curve - In Short-Run :-

" The Phillips Curve brings out an Inverse relationship between Rate of Unemployment and Rate of increasing in money wages "

OR " The Phillips Curve shows Trade-OFF between Wage-inflation and Unemployment "

According to phillip, higher the rate of Unemployment, Lower will be the rate of wage-inflation. He showed that years with Low unemployment have high inflation Rate and years with High Unemployment have Low Inflation Rate.

The Phillip Curve explains Trade-off between Inflation and Unemployment as Follows :—

(C) Diagram :-

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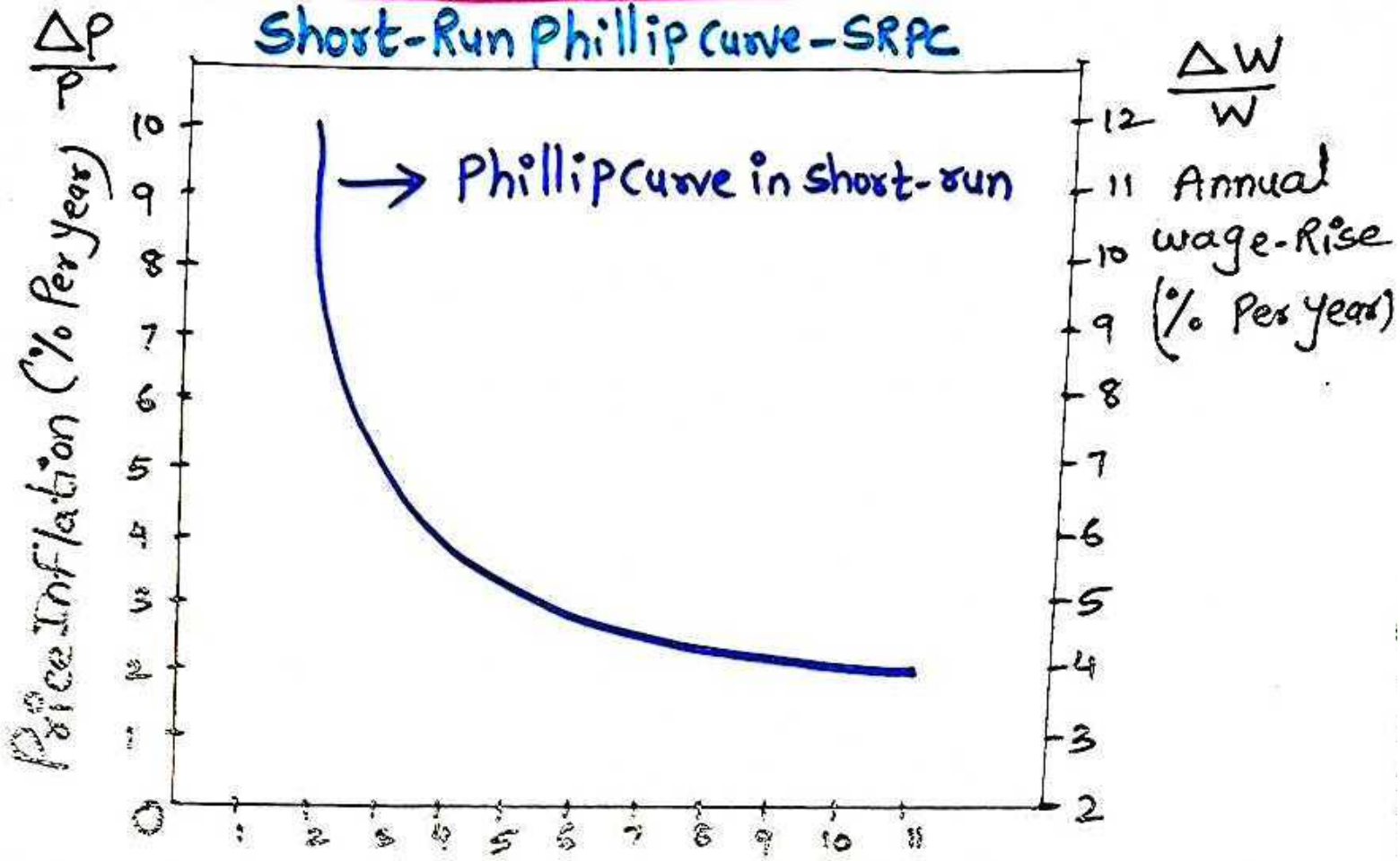
Short-Run Phillip Curve - SRPC



1) Left-hand side Vertical axis shows Price Inflation Rate and Right-hand side Vertical axis show Wage Rate which is higher by 2% than inflation Rate.

2) It is assumed that 2% Rate of growth of Average Labour Productivity. Thus inFlation Rate is always 2% Less than the increase in wage-Rate.

3) The Short-Run Phillip Curve - SRPC is a downward Sloping Curve Showing inverse relationship between InFlation (Price-level) and Unemployment.

4) Price-inFlation and wage-Rate are Closely related. Price-inFlation will try to Substitute for wage-inFlation.

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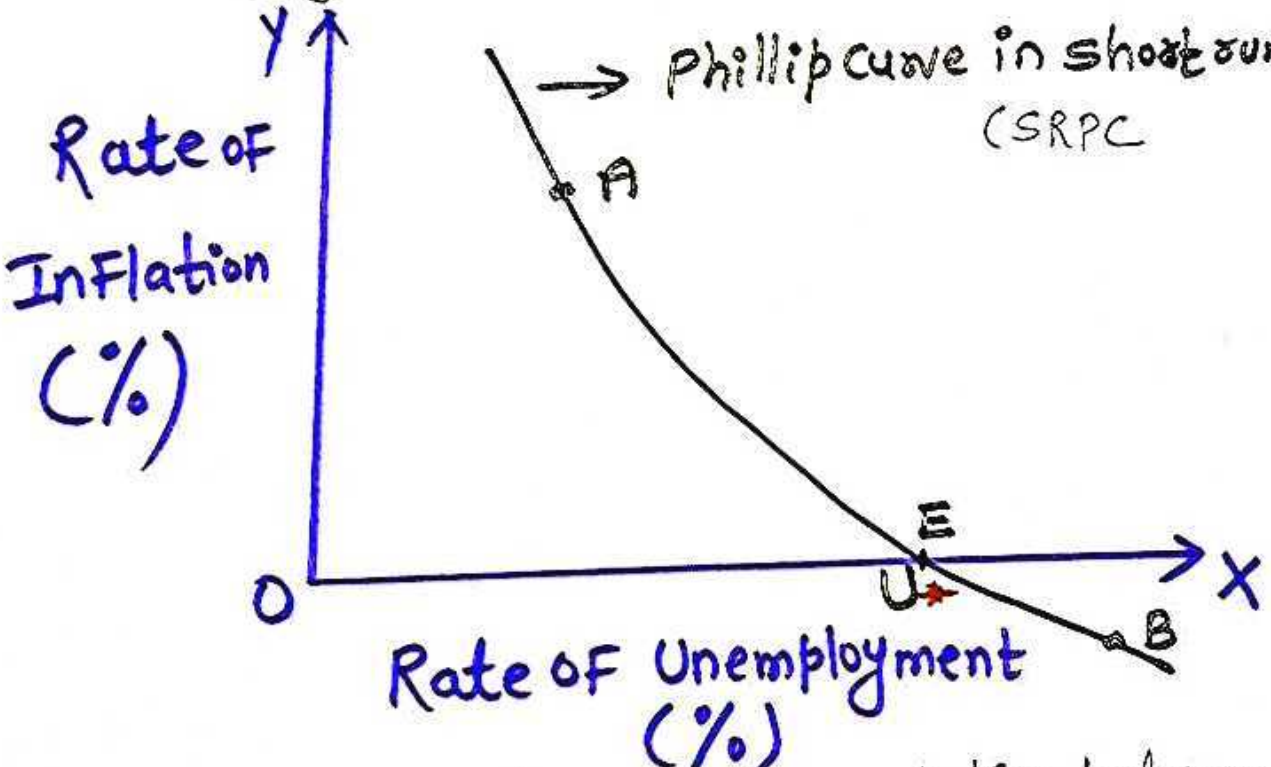
5) SRPC Curve also include expected inflation due to rise in Production.

6) The modern Phillip Curve include Supply Shocks due to increase in the world Price OF Oil by OPEC in 1970.

(D) Trade-OFF between Inflation and Unemployment

According to this theory a Nation can either have a Lower rate of inflation at the cost of high-rate of Unemployment or Vice Versa shown in Following diagram:



1) SRPC Curve Shows inverse relation between Rate of inflation and Rate of Unemployment. An economy must be Prepared to have a Trade-OFF between these Two Variables.

2) At Point-E, there is Zero inflation and Unemployment rate as - $U^* =$ InflationRate = UnemploymentRate

3) If the Agg. Demand increases due to nominal increase in money supply. It will helps to increase income, Output and employment. Here economy moves to Point-A.

4) Due to high-Price level, raise the interest rate in the economy which reduce the demand for money for investment. Again Agg. Demand start reducing which reduce income, output and employment. Here economy Come back to Point-E.

5) Due to supply shock, brings Aggregate demand more downwards. Here inflation will be Negative and Unemployment rate Will be higher which move economy towards Point-B.

6) Due to decline in Price-level, there is increase in money supply and increase in Aggregate Demand which slowly Push to Economy at Point-E.

Thus Phillip Curve explains a temporary or Short-run Trade-off between Unemployment and inflation.

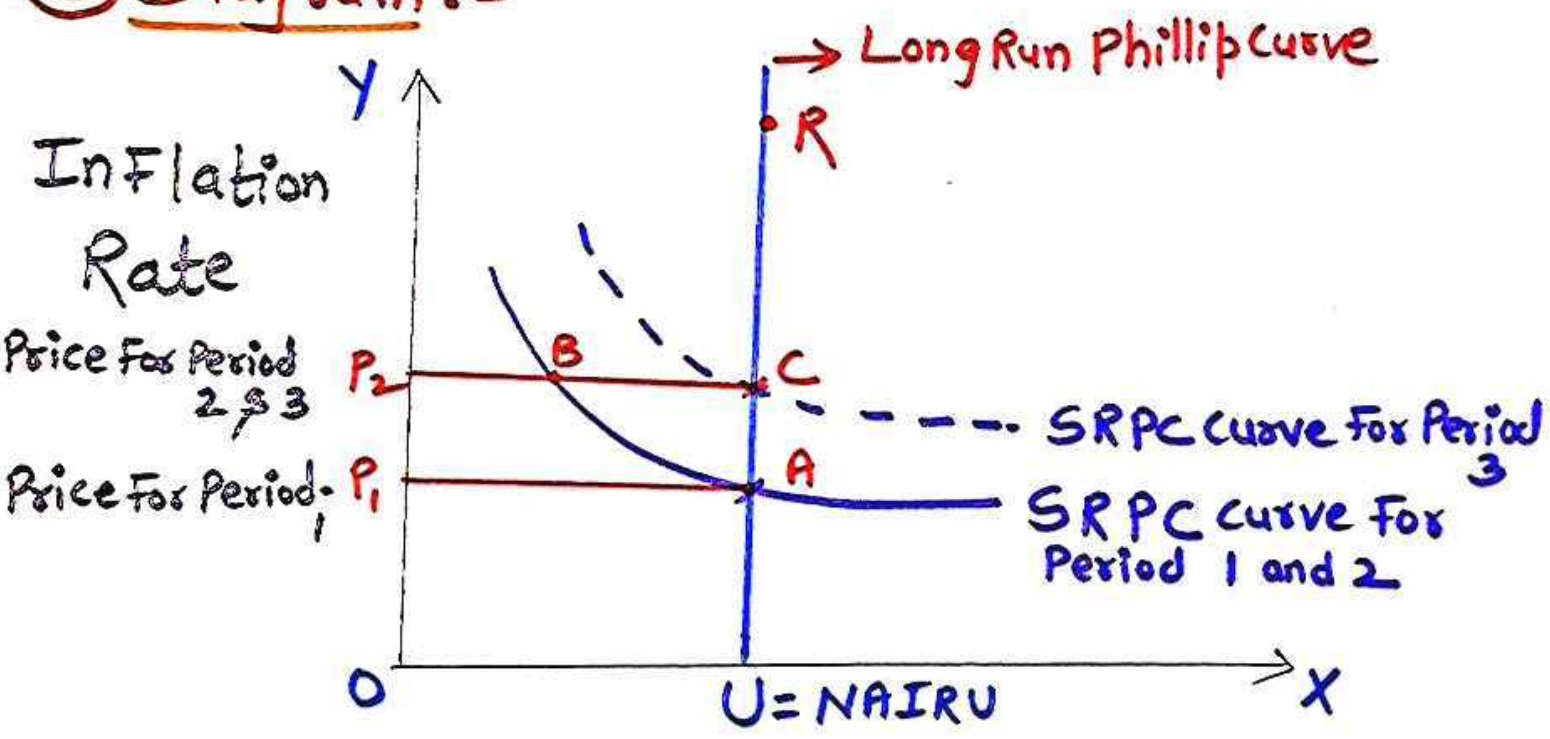
Q:2 Explain the nature of phillip Curve in the Long-Run?

(A) **Long-Run Phillip Curve :-** According to Friedman and phelps, there is no trade-off between inflation and Unemployment in the Long-run. Growth

in the money supply will determine the inflation Rate. According to Classical economists- growth in money supply do not bring any changes in out and employment. Thus the Phillip Curve is Vertical in the Long-Run.

In Long-Run the Phillip Curve is Vertical straight Line. This shows that Minimum Unemployment Rate with steady inflation in Long-Run. It is Known as- "NAIRU" — Non-Accelerating Inflation Rate OF Unemployment.

(B) Diagram :-



In above diagram we Observe—.

1) In the First Period- Unemployment is at U = NAIRU Level i.e at Point- A.
2) In the Second Period, due to economic exapansion

Unemployment reduced which result in increase in Inflation i.e at B-Point.

3. In Period-3, Price level increases, which increase wage-rate in the market. Now in short-Period, Phillip Curve is shifted above Original SRPC curve at Point-C.

4) The economy is slowly moving from Point-A to Point-B with Lower Unemployment and Higher Inflation Rate - P_2.

5) In Period-3, again at Some Inflation Rate - P_2, economy moves back to Point-C level i.e NAIRU-Level.

6) Thus in Long-Run, Unemployment will be fixed at NAIRU-Level where Inflation will be at Maximum Level OF R-Point.

7) In Long-Run Phillip Curve will take Vertical Position because Unemployment does not depend Upon money growth and inflation in Long-Run.

Q:3 What is Stagflation?

(A) **Stagflation :-** western world especially U.S.A Seen a New Phenomenon called Stagflation during 1970-1980. Stagflation is a economic situation where Stagnation and inflation both Co-exist.

In Stagflation, we observe slow economic growth, increasing unemployment and high rate of inflation. Stagflation goes against phillips curve i.e inverse relationship between inflation and unemployment

Stagflation = Slow Economic Growth + High Unemployment (Stagnation) + Rising Prices (inflation)

(B) Meaning - Lain Macleod

" Stagflation means a economic situation where High inflation and unemployment both exist in economy. "

Q:4 Select the most appropriate answer from the alternatives given and rewrite statement :-

1. The normal rate of unemployment around which the unemployment rate fluctuates is called

b - Natural Rate of Unemployment

a) Frictional Unemployment b) Natural rate of Unemployment
c) Structural Unemployemend d) Voluntary unemployment

2) The Trade-OFF between inflation and unemployment is seen **b - in the Short-run.**

a) always b) in the Short-run
c) in the Long-run d) in the developing countries.

3) The Short-run Trade-OFF between inflation and unemployment is shown by **a - Phillip Curve**

a) Phillip Curve b) Keynesian Agg. Demand Curve.
C) Consumption Curve d) Inflationary gap.

4) According to which theory the growth in money supply is the primary determinant of inflation.

C - Classical Theory.

A) Keynesian b) Phillips
C) Classical d) Adam Smith.

Q:5 State whether the Following statements are True or False with reasons:

1. The natural rate of Unemployment is the normal rate of Unemployment around which the Unemployment rate Fluctuates.

Ans:- True

Reasons:- At Full employment level there Could be a good amount of frictional and structural Unemployment.

" The amount of Frictional and Structural Unemployment that is found in economy when National income is at its Potential level is Called Natural Rate of Unemployment."

It is also known as NAIRU by P.A. Samuelson and W.D. Nordhans.

2. The Phillip Curve shows the Long-Run trade-off between inFlation and Unemployment.

Ans:- False Reasons :- Q:1 - B Part

3. There is a negative correlation between the rate of Unemployment and the rate of inflation.

Ans:- True. Reasons: Q:1 - C Part

4. There is no Trade-off between inflation and Unemployment in the Long-run.

Ans:- True. Reasons: Q:2 - A Part

5. The Phillip Curve is horizontal in the Long-Run.

Ans:- False. Reasons. Q:2 - A Part.