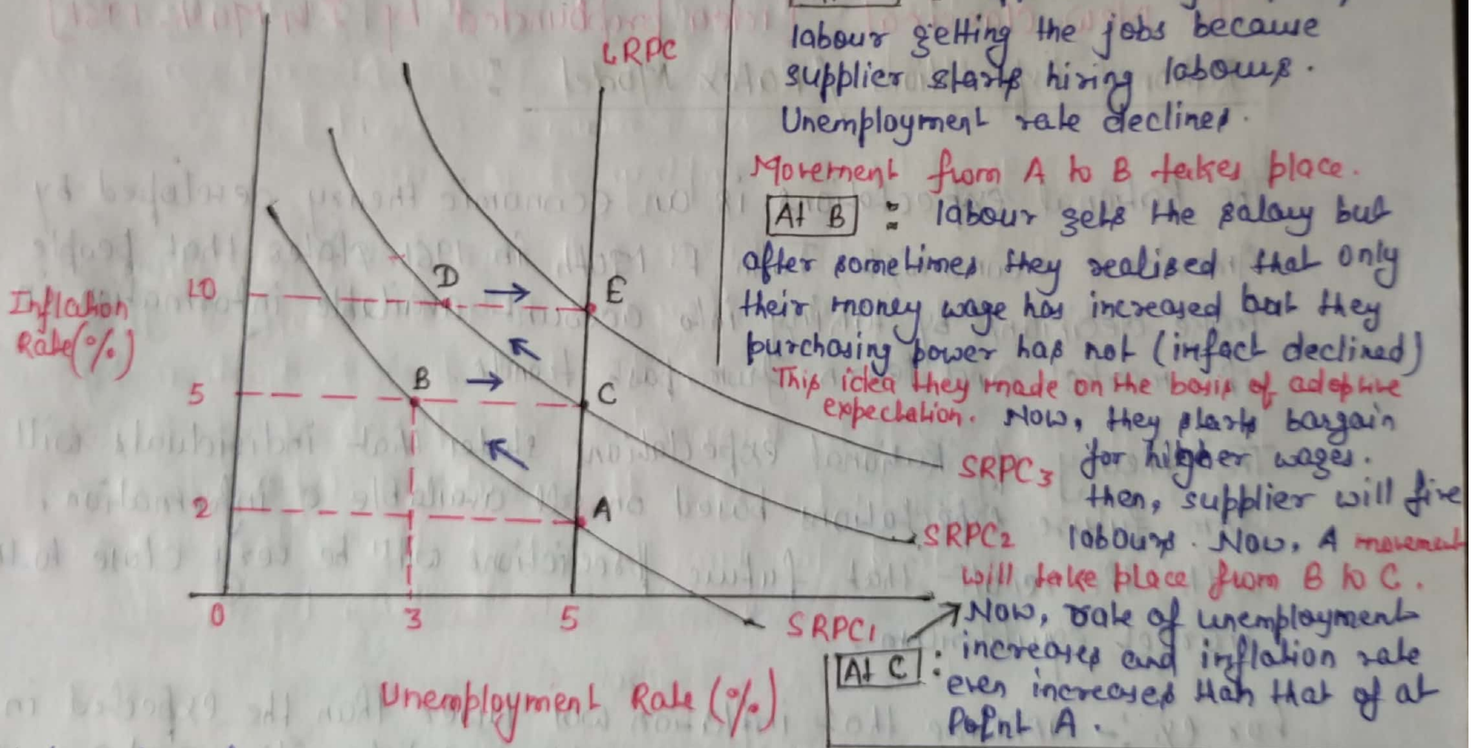
Rational Expectation / Ratex Model

This school also called "New Classical"

- **Adaptive expectations:** Suppose the govt. uses expansionary Monetary or fiscal policy to lower unemployment below NAIRU. According to adaptive expectations theory, policies designed to lower unemployment will move the economy from point A through point B, a transition period when unemployment is temporarily lowered at the cost of higher inflation. However, eventually, the economy will move back to the natural rate of unemployment at point C, which produces a net effect of only increasing the inflation rate. According to rational expectations theory, policies designed to lower unemployment will move the economy directly from point A to point C. The transition at point B does not exist as workers are able to anticipate increased inflation and adjust their wage demands accordingly.



Let's start from A with 2% π (inflation) and 5% unemployment rate.

Unemployment ↓ → Expansionary M.P/F.P → supplier is hiring new labours → Unemployment ↓ [movement from A to B] → Labour is getting jobs. Now they get salary [π ↑] → They will bargain higher wage → labor ↓

[Labour reduce their productivity] → Supplier will fire labour → [movement from B to C]

↓ due to adaptive expectations made by labours based on their past experiences / Past events.

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The theory of adaptive expectations states that individuals will form future expectations based on past events. For example, if inflation was lower than expected in the past, individual will change their expectations and anticipate future inflation to be lower than expected.

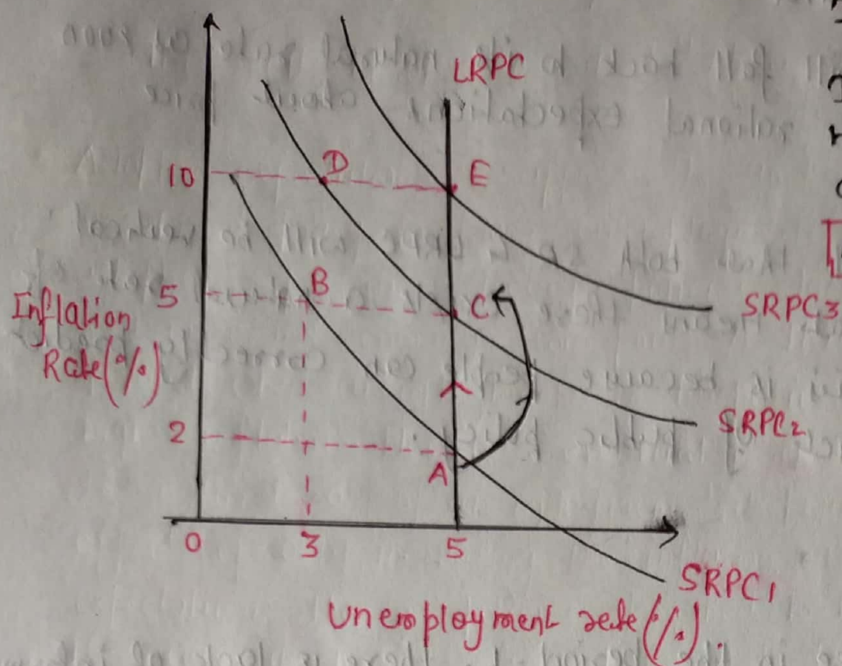
Adaptive Expectations Theory	Rational Expectations Theory
Process by which people form their expectations about what will happen in the future based on what has happened in the past. / Past experiences.	Process by which people form their expectations about what will happen in the the future based on all relevant information. / data etc.

The New Classical [idea propounded by J. F. Muth, 1961] Rational Expectations / Ratex Model :

The Rational expectations is an economic theory developed by American economist John. F. Muth in 1961 states that people make decisions by taking into account available information in the market and learn from past trends.

The theory of Rational expectations states that individuals will form future expectations based on all available information, with the result that future predictions will be very close to the market equilibrium.

For ex :- assume that inflation was lower than the expected in the past. Individuals will take this past information and current information, such as the current inflation rate and current economic policies, to predict future inflation rates.



In the given graph,

Due to rational expectation made by the labour. A direct movement from [A to C] will take place.

Assume the economy starts at point A, with an initial inflation rate of 2% and the natural rate of unemployment. However under rational expectations theory, workers are intelligent and fully aware of past and present economic variables and change their expectations accordingly.

They will be able to anticipate increases in AD and the accompany-ing increase in inflation.

As such, they will raise their nominal wage demands to match the forcasted inflation, and they will not have an adjustment period when their real wages are lower than their nominal wages.

Graphically, they will move seamlessly from point A to point C, without transitioning to point B.

In essence, rational expectation theory predicts that attempts to change the unemployment rate will be automatically undermined by rational workers. They can act rationally to protect their interests, which cancels out the intended economic policy effect. Efforts to lower unemployment only raise inflation.

Philips curve suggested that wage inflation will not come down as quickly as price inflation, which leads to unemployment

to rise above its natural rate.

But unemployment will fall back to its natural rate as soon as labour adjust his rational expectations about price downwards.

Thus, they advocated that both SR & LRPC will be vertical (inelastic) and that means there exists a natural rate of unemployment. This is because people can correctly predict the inflationary impact of public policy.

Lucas Critique :

Instance 1 – Suppose in the period-1, there is lack of information regarding the working of monetary policy and since information is incomplete, so people might have expectations that may be unbiased and rational, although. During this period only, the central bank can deceive labour by raising MS and can raise price [and their real wages remaining constant]. As a result, the real wage falls and employment is raised.

But in Period-2, when labour will have full information about the monetary policy and they will actually realized that the prices have actually risen in the last period, that is by period 2 they will have complete information of operations of monetary policy in the period-1, then their rational expectations will be correct. Indeed the time period of this undergoing revision of expectations can be say for a few months. by the time, central bank releases new statistics.

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