# UNIVERSITY OF THE PEOPLE

## BUS 1104-01 Macroeconomics- AY2024-T1

### Learning Journal Unit 4

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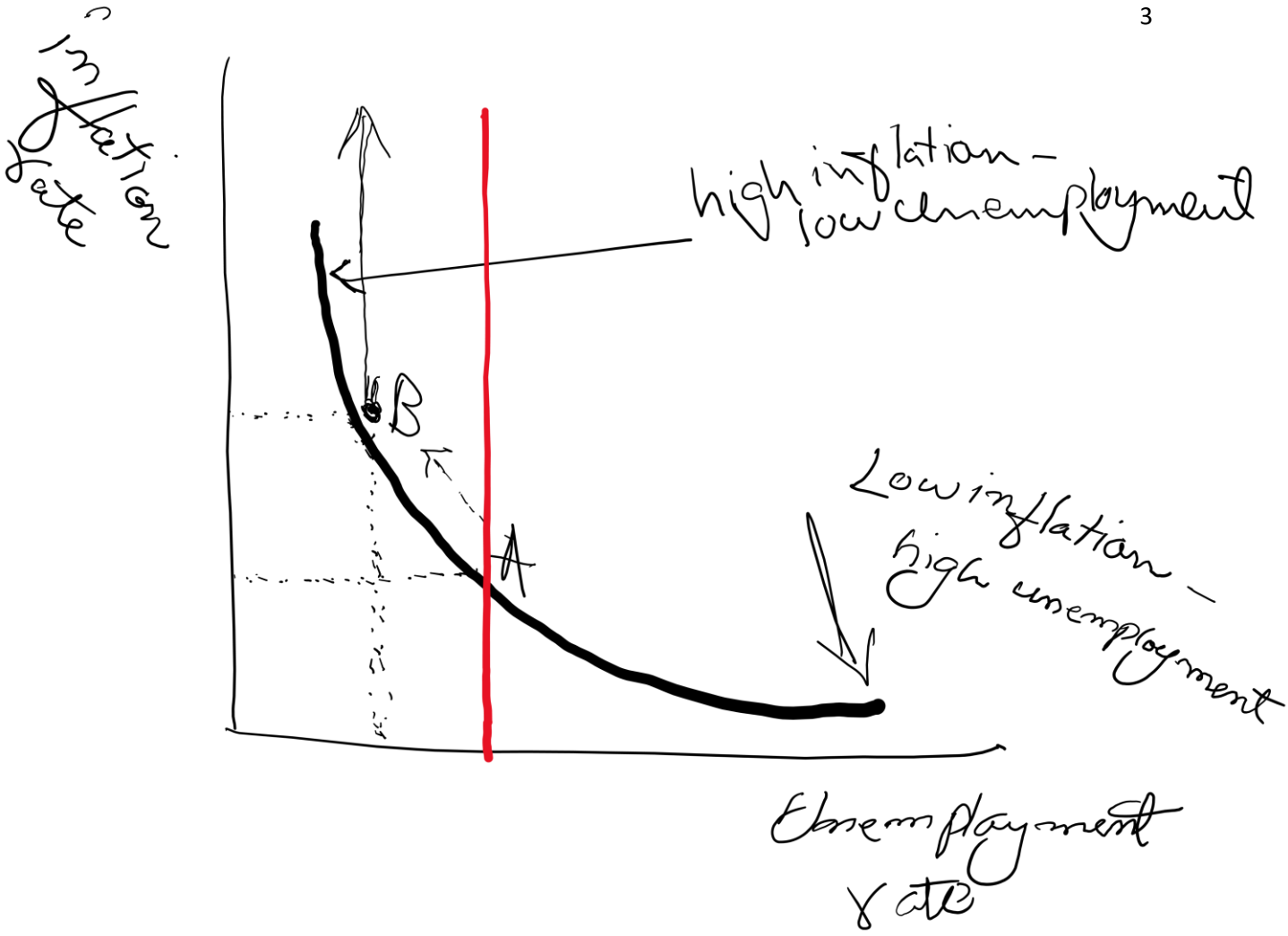
If the unemployment rate in the economy is steady at 4 percent per year, how does the short-run Phillips curve predict that the inflation rate will be changing, if at all?

The Phillips curve illustrates that inflation remains stable when unemployment is steady, as seen when unemployment is fixed at 4% annually. However, if unemployment rises to 7%, the Phillips curve predicts inflation will fall below the rate when unemployment was 4%. This inverse relationship between unemployment and inflation is the core prediction from the Phillips curve model.

Changes in the money supply from one year to the next do not impact on the unemployment rate directly. However, money supply growth can influence inflation if the Phillips curve is vertical in the long run. Specifically, the long-run Phillips curve is vertical at the natural rate of unemployment. This means while monetary policy can affect inflation in the long run, it cannot alter the natural unemployment rate.

If the natural unemployment rate shifts, the long-run vertical Phillips curve will shift as well to align with the new natural rate. In summary, the Phillips curve predicts inflation falls when unemployment rises in the short run, and only supply-side factors like the natural unemployment rate affect long run outcomes. Monetary policy impacts inflation but not unemployment in the long run due to the vertical Phillips curve.




What will happen if the unemployment rate now rises to 7 percent per year?

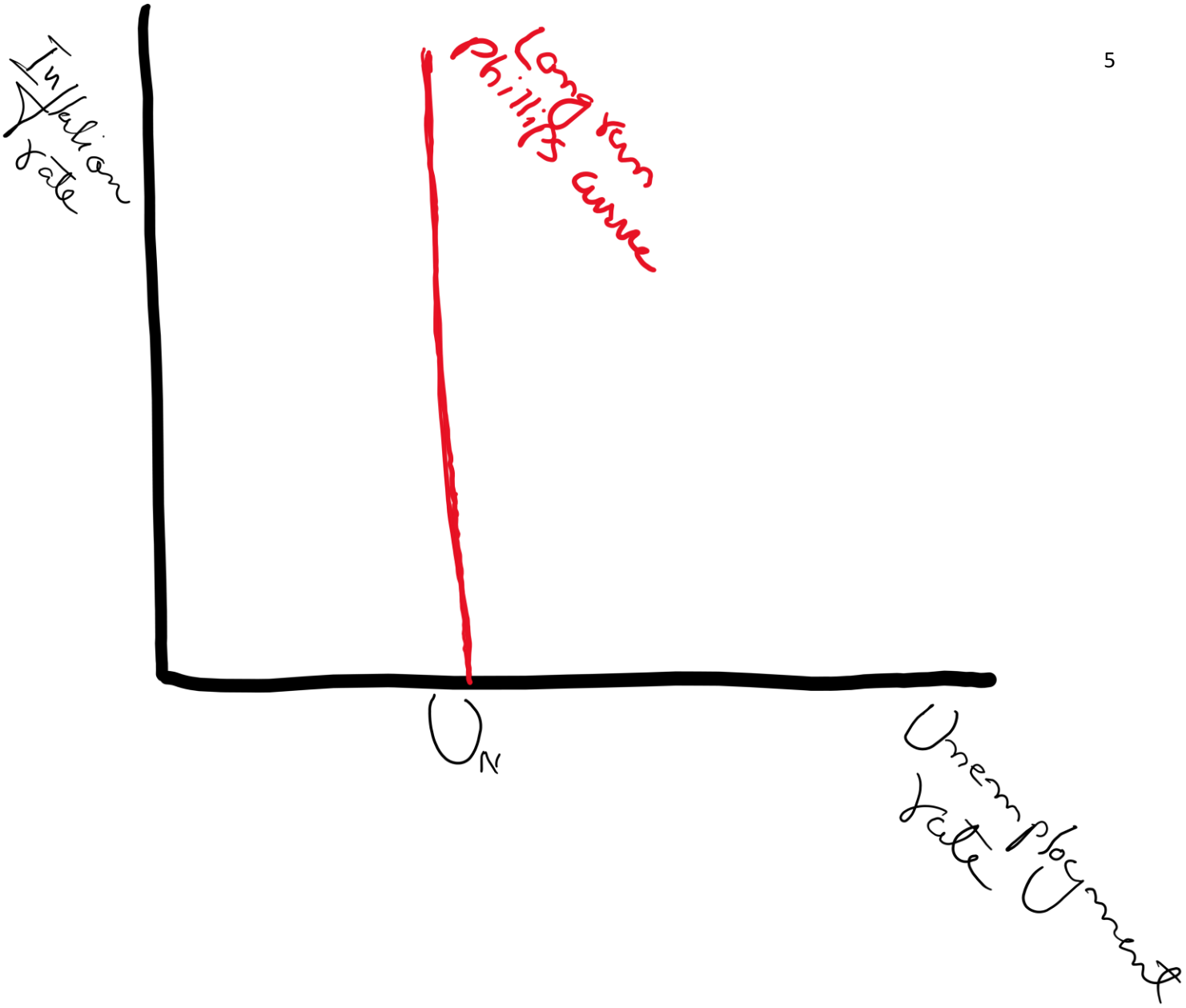
Contrary to what the short-run Phillips curve predicts, inflation is expected to decrease if unemployment rises to 7% annually. With higher unemployment, workers lose bargaining power and face more competition for limited job opportunities. This reduces upward pressure on wages, as employers accept lower compensation to remain employed when jobs are scarce. Firms are

then less likely to raise prices, resulting in slowing inflation during periods of high unemployment.

However, it is important to acknowledge the Phillips curve has limitations in precisely forecasting inflation, as factors besides unemployment also influence price changes. Still, the curve provides a useful framework for understanding how inflationary pressures typically ease during times of labor market slack when unemployment is high. Though not perfect, the Phillips curve gives a rough approximation of how unemployment and inflation move in opposite directions in the short run.

In the long run, the Phillips curve is expected to become vertical. This means changes in unemployment will not have an immediate impact on the rate of inflation over time. Instead, incomes adjust to match the economy's production capacity regardless of unemployment levels. So only supply-side factors, rather than demand-side unemployment, will affect long-term inflation according to the vertical Phillips curve.

In summary, the short-run Phillips curve predicts a steady and moderate inflation rate when unemployment is low and stable around 4 percent. But if unemployment rises significantly to 7 percent, the accompanying loss of bargaining power for workers translates into reduced upward pressure on wages and prices. Therefore, the Phillips curve indicates rising unemployment will bring down the inflation rate. These examples illustrate how the Phillips curve can be used to analyze the impacts on inflation from changes in labor market conditions as measured by the unemployment rate. The basic tradeoff remains that lower unemployment spurs rising inflation, while higher unemployment contributes to slowing inflation.




With inflation expectations unchanged, the Phillips curve predicts inflation will fall as unemployment rises from 4% to 7%, depicted by the downward movement along the curve between the two labeled points. This graph supports the discussion of the short-run tradeoff between unemployment and inflation.

Reference:

Greenlaw, S., & Shapiro, D. (2017). Principals of macroeconomics 2e. Openstax. Licensed under CC-BY 4.0. https://openstax.org/details/books/principles-macroeconomics-2e

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