Exercise walk-through

Employment/unemployment ▪ 9.3

eXercise

You must be able to

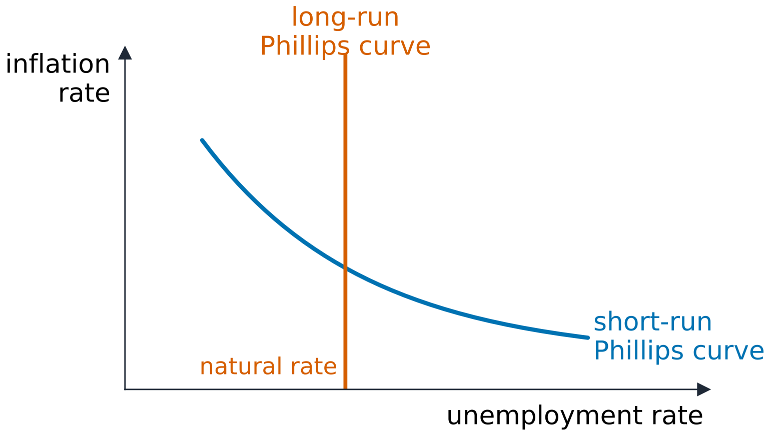
- distinguish the types of unemployment and define the natural rate
- explain the short-run and long-run Phillips curve
- analyse the unemployment–inflation trade-off

Method — The Phillips curve

- **Natural rate of unemployment 自然失业率**: what remains when the labour market is in balance (frictional + structural) — not removable by raising demand alone.
- **Short-run Phillips curve:** lower unemployment ↔ higher inflation (a trade-off).
- **Long-run Phillips curve:** vertical at the natural rate — no lasting trade-off once inflation is expected.

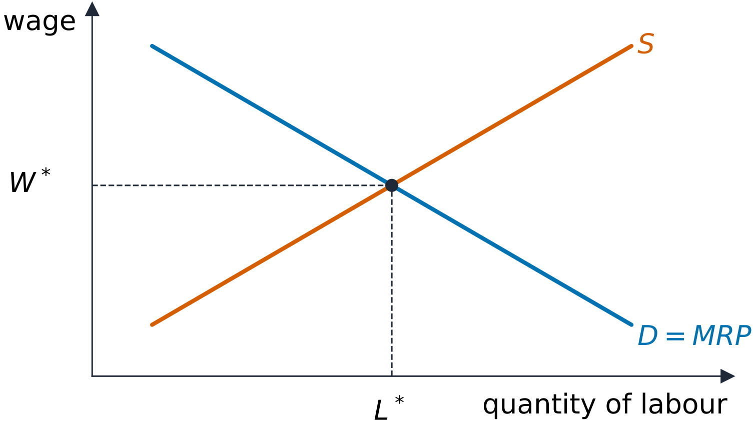
Answer shapes: an **Explain [up to 8]** answer may use a Phillips diagram (AO3); **Discuss [12]** adds a judgement (AO4).

Method — The Phillips curve



A downward short-run curve and a vertical long-run curve at the natural rate

Method — The Phillips curve



The wage and employment are set where labour demand (MRP) meets labour supply

Practice 2.1 ▪ 2 marks

Define the term *natural rate of unemployment*.

Solution 2.1

Method: The Phillips curve

Worked steps

the rate of unemployment that remains when the labour market is in equilibrium — mainly frictional and structural unemployment (2 for a clear definition; 1 for a partial idea).

Practice 2.2 ▪ 2 marks

State what the **short-run** Phillips curve shows.

Solution 2.2

Method: The Phillips curve

Worked steps

an inverse (trade-off) relationship between unemployment and inflation — lower unemployment comes with higher inflation (2 for a clear statement; 1 for a partial idea).

Practice 2.3 ▪ 1 mark

State the shape of the **long-run** Phillips curve.

Solution 2.3

Method: The Phillips curve

Worked steps

vertical (at the natural rate) (1).

Exam-style 3.1 ▪ 1 mark

The long-run Phillips curve is:

A downward sloping

B upward sloping

C vertical at the natural rate of unemployment

D horizontal

Solution 3.1

Method: The Phillips curve

A downward sloping

B upward sloping

C vertical at the natural rate of unemployment ✓

D horizontal

Worked steps

C. The long-run Phillips curve is vertical at the natural rate.

Exam-style 3.2 ▪ 6 marks

Explain the short-run trade-off between unemployment and inflation.

Solution 3.2

Method: The Phillips curve

Worked steps

[6] AO1 1 + AO3 up to 5 — to cut unemployment, a government raises aggregate demand $\rightarrow$ firms hire more, but stronger demand pushes up wages and prices $\rightarrow$ inflation rises $\rightarrow$ so in the short run lower unemployment is bought at the cost of higher inflation (a movement along the short-run Phillips curve).

Exam-style 3.3 ▪ 12 marks

Discuss whether a government can permanently reduce unemployment below the natural rate.

Solution 3.3

Method: The Phillips curve

Worked steps

[12] AO1/AO2/AO3 up to 8 + AO4 up to 4. **Short run:** raising demand can cut unemployment below the natural rate for a while. **Long run:** once workers expect higher inflation, they demand higher wages → unemployment returns to the natural rate while inflation stays high → the long-run Phillips curve is vertical. Judgement: demand policy cannot permanently lower unemployment below the natural rate; only supply-side policies that cut the natural rate (better skills, more flexible labour markets) can — it depends on tackling frictional and structural unemployment.