5.3 Unemployment and inflation

Name: _____ Class: _____ Date: _____ **Total: 30 marks**

KEY WORDS unemployment rate • structural unemployment • cyclical unemployment • consumer price index • deflation • natural rate of unemployment

Objective

Build the skills to answer exam questions on **unemployment** and **inflation** : how they are measured, their types, causes and costs, and deflation.

You must be able to:

- calculate the unemployment rate and explain the limits of the figure
- explain structural, frictional, seasonal and cyclical unemployment, and their costs
- explain how a consumer price index (CPI) measures inflation, and the causes and costs of inflation and deflation
- construct a weighted price index
- explain the short-run and long-run Phillips curves

1 Key knowledge and worked examples

■ Unemployment and inflation

Unemployment rate $= \dfrac{\text{number unemployed}}{\text{labour force}} \times 100$. The **labour force** is people in work plus those actively looking for work. The rate may hide **underemployment** (part-time workers wanting full-time), **hidden unemployment** (people who gave up looking), and the informal economy.

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type	cause	example	policy
structural	skills or location no longer match the jobs	coal miners after mines close	training, relocation help
frictional	short gaps between jobs	a graduate searching	better job information
seasonal	demand changes with the seasons	ski instructors in summer	hard to remove
cyclical (demand-deficient)	low AD in a recession	factory layoffs in 2009	demand-side policies

Costs of unemployment: lost output (inside the PPC), lower tax revenue and higher benefit spending, lost incomes, poverty, skills loss, health problems, crime, social tension.

Inflation is a sustained rise in the general price level, measured by the **consumer price index (CPI)**: the cost of a fixed **basket** of goods, weighted by the share of spending. **Deflation** is a sustained fall. **Disinflation** is a fall in the rate of inflation.

Causes: demand-pull (AD grows faster than capacity) and **cost-push** (SRAS falls: higher wages, oil prices).

Costs of high inflation: loss of purchasing power for those on fixed incomes, uncertainty that cuts investment, less competitive exports, redistribution from savers to borrowers, menu and shoe-leather costs. **Costs of deflation:** consumers delay purchases, real debt burdens rise, firms cut output and jobs: a downward spiral. Many central banks target about 2% inflation.

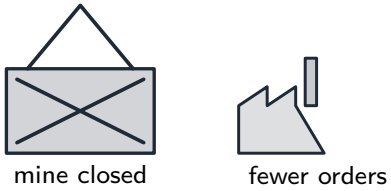
AHL – weighted index: index $= \sum$(weight $\times$ price index of item); inflation $=$ index change in %.

AHL – Phillips curve: in the **short run** there is a trade-off: lower unemployment comes with higher inflation. In the **long run** (monetarist view) the curve is **vertical** at the **natural rate of unemployment** (structural + frictional + seasonal): trying to push unemployment below it only raises inflation.

Answer shapes: identify the type or cause, explain it with the data, and match it to a policy.

2 Practice

2.1 Distinguish between structural and cyclical unemployment. [2]



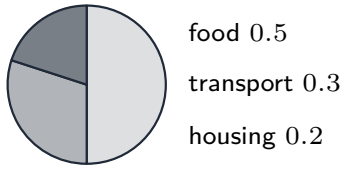
2.2 In a country, 1.8 million people are unemployed and 28.2 million are employed. Calculate the unemployment rate. [2]



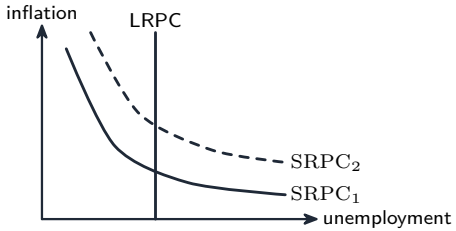
2.3 Explain **two** costs of high inflation for an economy. [4]



2.4 A price index has three items. Food has a weight of 0.5 and a price index of 110; transport 0.3 and 105; housing 0.2 and 120 (base year = 100). Calculate the weighted index and the inflation rate. [3]



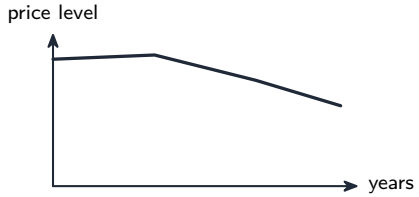
2.5 Explain why the long-run Phillips curve is vertical according to monetarist economists. [3]



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3 Exam-style questions

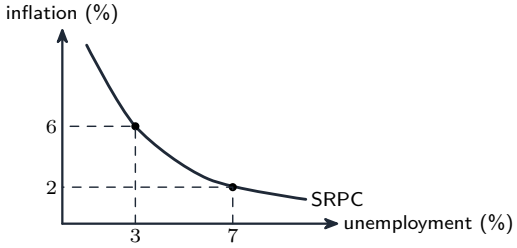
3.1 In one country, prices fell for two years in a row.



(a) Define **deflation**. [2]

(b) Explain why deflation caused by falling demand may harm the economy. [6]

3.2 The data show an economy where unemployment fell from 7% to 3% while inflation rose from 2% to 6%.



Using a Phillips curve diagram, explain the data and evaluate whether the lower unemployment can last. [8]

[[drawlines:9]]

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Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

structural: a long-term mismatch between workers' skills or location and the jobs available, e.g. after an industry declines; cyclical: caused by a fall in aggregate demand in a recession

2.2

labour force = 30 million; rate = $1.8 \div 30 \times 100 = \mathbf{6}\%$

2.3

any two, explained: people on fixed incomes or savers lose purchasing power; uncertainty makes firms delay investment, slowing growth; exports become less competitive if inflation is higher than abroad; menu costs / time spent managing money

2.4

$0.5 \times 110 + 0.3 \times 105 + 0.2 \times 120 = 55 + 31.5 + 24 = \mathbf{110.5}$; inflation = $\mathbf{10.5}\%$

2.5

pushing unemployment below the natural rate raises inflation; workers then expect higher inflation and ask for higher wages, so the short-run Phillips curve shifts up; unemployment returns to the natural rate at a higher inflation rate: no long-run trade-off

3.1

(a) a sustained fall in the general price level

(b) consumers delay purchases, expecting lower prices later; AD falls further, so firms cut output and jobs; a downward spiral of falling prices and spending; the real value of debts rises, so borrowers cut spending and some default; firms' profits fall, so investment falls; interest rates cannot go much below zero, so monetary policy loses power

3.2

award up to [8]: diagram: downward-sloping SRPC with the two points; rising AD lowered unemployment and raised inflation: a short-run trade-off; if 3% is below the natural rate, workers expect higher inflation and demand higher wages; the SRPC shifts up / out; unemployment returns to the natural rate with higher inflation: vertical LRPC; evaluation: if supply-side policies have lowered the natural rate, a low rate could last; Keynesians see more room for demand policy

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