

Cambridge AS & A Level · Economics 9708 · Notes

Employment/unemployment A2

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Last checked 5 October 2026

Read first: [Unemployment](#), [Labour market forces and government intervention](#), [The circular flow of income](#)

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What you need to know

This topic builds on AS Unemployment (types, measurement, consequences). By the end of it you should be able to:

1. **Define full employment**, and explain why it does not mean that nobody is out of work.
2. **Tell equilibrium unemployment from disequilibrium unemployment**, using a labour-market diagram, and explain **hysteresis**: how a long spell of high unemployment can leave unemployment high after the economy recovers.
3. **Tell voluntary from involuntary unemployment**.
4. **Explain the natural rate of unemployment**:
 - what it is;
 - what makes it higher or lower;
 - what it means for government policy.
5. **Describe and explain patterns and trends** in employment and unemployment, and read them from data.
6. **Explain the mobility of labour**:
 - its two forms, **geographical** (moving to where the jobs are) and **occupational** (moving into a different kind of work);
 - what makes workers more or less mobile.
7. **Evaluate policies to reduce unemployment**: which policy suits which type of unemployment, and how effective each is likely to be.

Understand it

Measuring employment and unemployment (a reminder)

People of working age are **employed** (including self-employed and part-time), **unemployed** (no job, available and **actively looking**: the ILO definition) or **economically inactive** (students, carers, the long-term sick, early retirees, **discouraged workers**). The **labour force** is the employed plus the unemployed. Check the bottom of each fraction:

- **unemployment rate** = $\frac{\text{unemployed}}{\text{labour force}} \times 100$;
- **employment rate** = $\frac{\text{employed}}{\text{working-age population}} \times 100$;
- **participation (activity) rate** = $\frac{\text{labour force}}{\text{working-age population}} \times 100$; the rest is the inactivity rate.

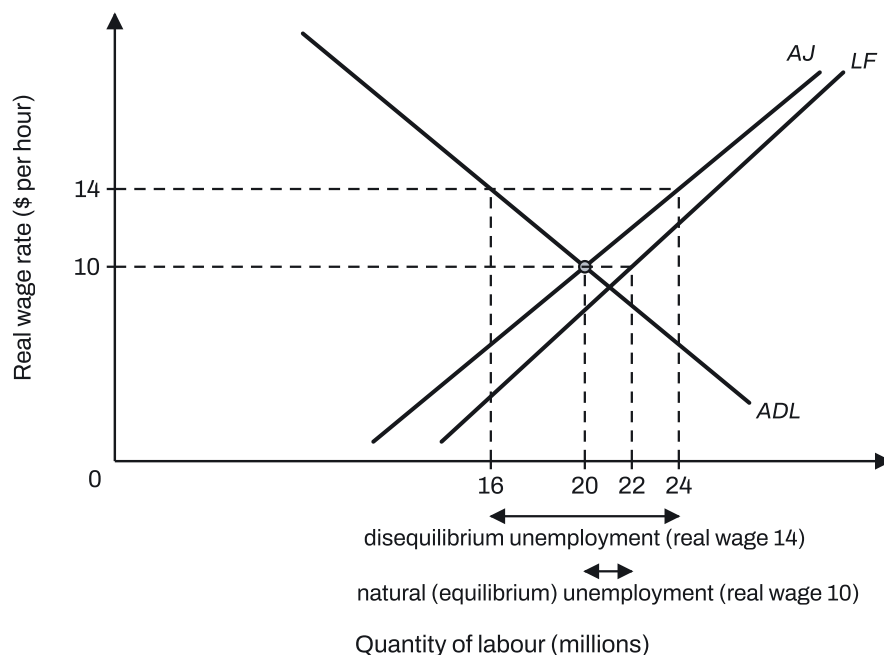
Example: 40 million people of working age, 30 million employed, 2 million unemployed and 8 million inactive. The labour force is 32 million, so the unemployment rate is $\frac{2}{32} \times 100 = 6.25\%$, the employment rate is $\frac{30}{40} \times 100 = 75\%$, the participation rate is 80% and the inactivity rate is 20%.

Full employment

Full employment is not zero unemployment. It is the point at which there is a job for everyone who is willing to work at the real wage on offer, so vacancies roughly match job-seekers. People are still between jobs, or have skills or homes that do not fit the vacancies, so unemployment is at its **natural rate** (below), not zero. For the whole economy, full employment output is the most it can produce without demand pushing up the rate of inflation: on an AD/AS diagram it is Y_F , where the long-run aggregate supply curve becomes vertical; on a production possibility curve it is a point **on** the curve.

Equilibrium and disequilibrium unemployment

Think of the whole economy's labour market, with the **real wage** (the money wage adjusted for prices) on the vertical axis.



- **ADL**, the aggregate demand for labour, slopes down: firms hire more at a lower real wage.
- **AJ**, the workers who would **accept a job** at each real wage, slopes up.
- **LF**, the whole labour force, lies to the right of AJ: some of its members will not take a job at the going wage, because they are still searching, cannot move to the work, or lack the skills.

Equilibrium unemployment. At the real wage of \$10, the jobs firms offer (20 million) equal the number willing to take them (20 million): the labour market clears. Yet the labour force is 22 million, so 2 million are still unemployed, $\frac{2}{22} \times 100 = 9.1\%$ of the labour force. This unemployment exists **even when the labour market clears**: it is **frictional**, **structural** and **seasonal** unemployment, and its level is the **natural rate of unemployment**.

Disequilibrium unemployment happens when the labour market does **not** clear: more people are willing to work at the going wage than there are jobs. Causes:

- **Real-wage (classical) unemployment.** The real wage is held **above** the equilibrium, for example by a national minimum wage, strong trade unions or wages that do not fall. At \$14, firms want only 16 million workers but 24 million would take a job: 8 million are in disequilibrium unemployment. (With a labour force of 25.6 million at that wage, 9.6 million are unemployed in all.) Cure: let the real wage fall back.
- **Demand-deficient (cyclical, Keynesian) unemployment.** Aggregate demand falls, firms produce less and the demand for labour shifts **left**. Money wages are **sticky** downwards, so the real wage does not fall to clear the market. Cure: raise aggregate demand.
- **A rise in the supply of labour**, such as a wave of migration or school leavers, faster than wages or jobs can adjust.

For policy: disequilibrium unemployment goes once the market clears; equilibrium unemployment needs changes to how the labour market works.

Hysteresis

Hysteresis is when a period of high unemployment **raises the natural rate itself**, so unemployment stays high even after aggregate demand has recovered. The recession leaves a scar:

- people out of work for long **fall behind** as jobs and technology move on, and lose work habits;
- employers treat a long gap on a CV as a warning sign;
- **discouraged workers** stop searching;
- firms that close take their jobs with them, so mismatch grows.

So cyclical unemployment turns into long-term, structural unemployment, and a demand stimulus can raise output yet leave unemployment high. What helps is acting early and **active labour-market policies** for the long-term unemployed: retraining, work placements and wage subsidies.

Voluntary and involuntary unemployment

- **Voluntary unemployment:** people who **could** get a job at the going real wage but choose not to take it for now. Examples: a skilled worker turning down offers while searching for a better-paid one (frictional), or someone for whom benefits are almost as much as the take-home pay of the jobs on offer, so working barely pays (an **unemployment trap**). On the diagram, the gap between AJ and LF.
- **Involuntary unemployment:** people who are **willing to work at the going real wage** but cannot find a job, because there are too few jobs. Demand-deficient and real-wage unemployment are involuntary: on the diagram, the gap between ADL and AJ when the wage is above equilibrium.

The closer benefits are to the take-home pay of the jobs on offer, the less a person gains by working. Higher benefits, or benefits paid for longer, raise voluntary unemployment.

The natural rate of unemployment

The **natural rate of unemployment** (NRU) is the unemployment left when the labour market is in equilibrium: everyone willing to work at the going real wage has a job, and the people still out of work are frictionally or structurally (and seasonally) unemployed. It is also the rate at which there is no pressure for inflation to speed up or slow down, so it is sometimes called the **non-accelerating inflation rate of unemployment (NAIRU)**. It is not fixed: it differs between countries and changes over time.

What raises the natural rate (and its opposite lowers it):

Raises the NRU	Why
Generous unemployment benefits, or benefits paid for a long time	Searching longer costs less, so voluntary and frictional unemployment rise
Poor information about vacancies	Matching workers to jobs takes longer (frictional)
Low occupational or geographical mobility	Unemployed workers cannot fill vacancies in other jobs or regions (structural)
Too little education and training; skills that do not match new industries	Structural mismatch
Strong, militant trade unions; a high minimum wage; rigid employment rules	Real wages held above equilibrium; firms reluctant to hire
High income tax and other taxes on employment	Lower take-home pay weakens the incentive to work; higher costs of hiring
Fast structural change (new technology, shifts in world trade)	More workers in declining industries at any time
Hysteresis after a long recession	Long-term unemployed lose skills and stop searching

Policy implications.

- **Demand-side policy cannot lower the NRU.** Fiscal or monetary expansion can remove **cyclical** unemployment. Pushing unemployment below the natural rate mainly raises inflation (in the monetarist view, unemployment then drifts back to the natural rate, leaving only higher inflation).
- **Supply-side policies lower it** by tackling the causes in the table; on an AD/AS diagram they shift the LRAS to the right.
- So a government must first judge **how much unemployment is cyclical and how much is natural**: Keynesians stress demand deficiency and budget deficits; monetarists argue most is natural and needs supply-side reform.

Patterns and trends in employment and unemployment

Unemployment is never spread evenly. Typical patterns:

- **Over the cycle:** unemployment rises in a recession and falls in a recovery, usually **lagging** behind output.
- **By age, region and duration:** youth unemployment is usually two or three times the overall rate; regions where old industries declined have more; the long-term share rises after a long recession.
- **By sector:** employment moves from agriculture to manufacturing to services as economies develop; in high-income economies manufacturing jobs keep falling while service and digital jobs grow.
- **Kinds of work:** more part-time, temporary, self-employed and gig work, and more women in paid work.
Underemployment (fewer hours than wanted, or work below one's skills) can be high when unemployment is low.
- **In low-income countries:** much work is in farming and the **informal economy**, so measured unemployment can be low while underemployment is high.

Reading data carefully. Suppose country P's unemployment rate rises from 6.0% to 7.5% and its youth rate from 14.0% to 18.2%, while in country Q the overall rate rises from 4.0% to 4.5% and the youth rate falls from 10.0% to 9.0%.

- P's overall rate rose by 1.5 **percentage points**, which is a $\frac{1.5}{6.0} \times 100 = 25\%$ **increase**; its youth rate rose by 4.2 points, a 30% increase. Both measures are correct, but say which you mean.
- The two countries did **not** follow the same trend: in Q, youth unemployment fell while the overall rate rose.
- A higher **rate** does not mean more **people**. If P's labour force is 3 million and Q's is 20 million, P has $0.075 \times 3 = 0.225$ million unemployed and Q has $0.045 \times 20 = 0.9$ million.
- Rising unemployment and rising vacancies **at the same time** point to mismatch: occupational or geographical immobility, so structural unemployment.

Mobility of labour

Geographical mobility is how easily workers move to work in another place; **occupational mobility** is how easily they move into another kind of job. When either is low, unemployment in one place or occupation sits beside vacancies in another.

	What reduces it	What improves it
Geographical	regional gaps in house prices and rents; moving costs; family ties; not knowing about jobs elsewhere; poor transport; immigration controls and language	moving grants, affordable rental housing, better transport, national job websites, freer movement between countries
Occupational	missing skills or qualifications; the time and cost of training; age; licensing rules; discrimination	education and retraining , apprenticeships, recognising foreign qualifications, anti-discrimination laws

Better mobility lowers structural and frictional unemployment, and so lowers the natural rate.

Migration is geographical mobility between countries. For a country receiving workers:

- **labour supply** and AS rise, filling shortages, raising growth and **easing pressure on wages and prices**;
- migrants spend, so **AD rises** with a multiplier; some start businesses that create jobs;
- **remittances** sent home are a current-account outflow;
- some argue migrants **displace** local workers; others answer that AD and AS both rise, so output and jobs grow.

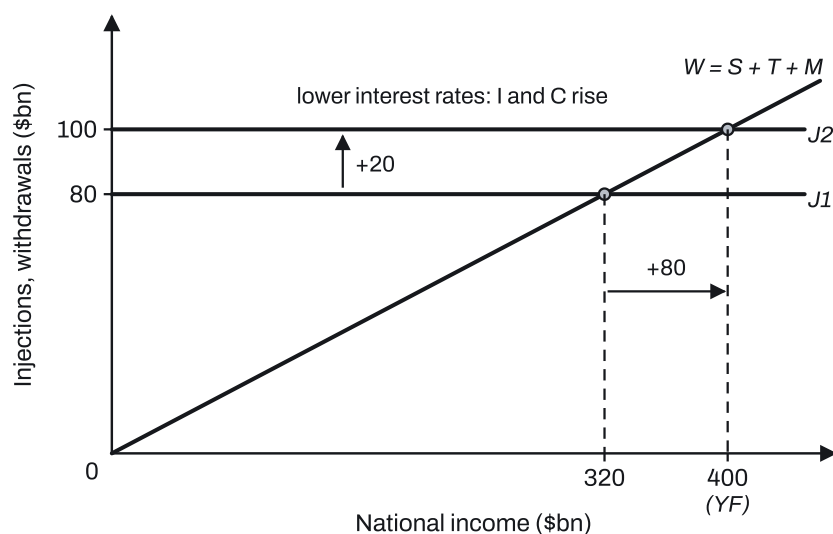
A country losing workers gains remittances and less unemployment, but loses skills (a "brain drain") and capacity.

Policies to reduce unemployment

The first step is always to **diagnose the type**: the right cure depends on the cause.

Demand-side policies (cyclical, demand-deficient unemployment)

- **Expansionary fiscal policy**: more government spending (an injection) or lower taxes (more disposable income), so a bigger **budget deficit**. The **multiplier** raises income by more than the first injection, and firms hire to produce the extra output.
- **Expansionary monetary policy**: lower interest rates or quantitative easing make borrowing cheaper, so **investment** and **spending on credit** rise, helped by the **accelerator**; a weaker currency also raises net exports.
- **Depreciation of the exchange rate**: exports cheaper, imports dearer, so jobs in exporting and import-competing industries rise.

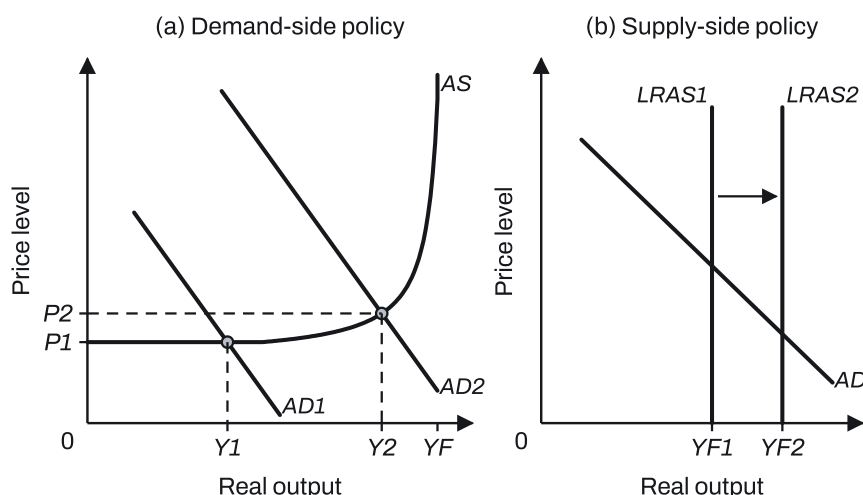


On an **injections and withdrawals (J/W) graph**, equilibrium income is where injections ($J = I + G + X$) equal withdrawals ($W = S + T + M$). Here the marginal propensity to withdraw is 0.25, so the multiplier is $\frac{1}{0.25} = 4$. With $J_1 = 80$, equilibrium income is 320, below the full employment income of 400: there is cyclical

unemployment. Lower interest rates raise investment (and consumption, which reduces saving), lifting injections to $J_2 = 100$. Income rises by $20 \times 4 = 80$ to 400, and the extra output needs more workers. The same graph shows a fiscal stimulus (a rise in G) or export-led growth (a rise in X).

How effective is demand-side policy? It works best when there is plenty of **spare capacity** and the unemployment really is cyclical. It works less well when:

- the economy is near full employment: extra demand mainly raises **inflation**;
- the unemployment is **structural**, frictional or caused by hysteresis: more demand does not give the unemployed the right skills or move them to where jobs are;
- the **multiplier is small**, for example because households save more or buy imports;
- confidence is low: firms do not invest and households do not borrow even at very low rates (a **liquidity trap**, or interest-inelastic investment);
- **time lags** mean the effect arrives after the economy has already recovered;
- government borrowing raises interest rates and **crowds out** private investment, or adds to an already high national debt;
- a lower exchange rate raises import prices, causing **cost-push inflation**; cheap credit can inflate house prices.



Supply-side policies (equilibrium unemployment and the natural rate) match the cause: **education and retraining** (structural); **job centres and vacancy websites** (frictional); **benefit reform** so that working always pays (voluntary); **lower income tax** on low earners; **labour-market reform** such as limits on union power, more flexible and regional pay, a minimum wage held down relative to average pay (real-wage); **regional policy**, with grants for firms and help with moving; **wage subsidies** for hiring the long-term unemployed or young people (hysteresis).

How effective are supply-side policies? They tackle the causes and can lower the natural rate **without** adding to inflation (the LRAS shifts right). But they are **slow** (training takes years), **costly** for the government, uncertain (workers may not take up training; firms may take the subsidy and hire people they would have hired

anyway), and some, such as cutting benefits, union power or the minimum wage, can **widen inequality** and hurt those already struggling. They do little in a deep recession, when jobs are simply too few.

Other types: seasonal unemployment falls if seasonal areas gain other industries or spread tourism across the year; technological unemployment is structural, so retraining and mobility help.

A strong conclusion usually says that most economies have **several types at once**, so a **mix** works best: demand-side policy for the cyclical part in a recession, supply-side policy for the natural rate in the long run.

Key facts and formulas

There is no formula list in the 9708 exam, so everything here is "Learn it".

Formula	Status
Labour force = employed + unemployed (the economically active)	Learn it
Unemployment rate = $\frac{\text{unemployed}}{\text{labour force}} \times 100$	Learn it
Employment rate = $\frac{\text{employed}}{\text{working-age population}} \times 100$	Learn it
Participation rate = $\frac{\text{labour force}}{\text{working-age population}} \times 100$; inactivity rate = $100 - \text{participation rate}$	Learn it
Change in percentage points = new rate – old rate; percentage change = $\frac{\text{new} - \text{old}}{\text{old}} \times 100$	Learn it
Natural (equilibrium) unemployment = labour force – workers willing to accept a job, at the equilibrium real wage	Learn it
Multiplier $k = \frac{1}{\text{marginal propensity to withdraw}}$; change in income = $k \times \text{change in injections}$	Learn it

How to do it

We tagged 79 questions for this topic, from March 2021 to March 2026 (68 different; 11 are repeats across paper variants): 61 Paper 3 multiple choice and 18 Paper 4 essays and data-response questions. 6 of them have parts of more than one type, so the counts add up to 85.

Question type	Questions
Identify, define or explain a type or cause of unemployment	18
Choose the policy that reduces a given type of unemployment	14
Evaluate policies to reduce unemployment	11

Question type	Questions
Labour mobility: factors, policies and effects of migration	9
Natural rate of unemployment: determinants and policies	8
Measure unemployment: labour force, rates, ILO definition	8
Interpret (un)employment data and trends	8
Hysteresis	4
Full employment, growth and technology (essays)	3
Consequences of rising unemployment	2

1. Identify, define or explain a type or cause of unemployment (18 questions)

Mostly multiple choice; also short data-response parts and 12-mark essay parts.

1. Find the cause in the scenario, then name the type:

- between jobs, searching, choosing among offers, poor vacancy information → **frictional**;
- an industry in long-term decline, skills or location that no longer fit (a closed mine or plantation, a factory beaten by cheaper imports, city-centre shops closing for good) → **structural** (technological if machines replace workers; regional if concentrated in one area). Anything that makes foreign rivals cheaper, such as their falling labour costs per unit, raises structural unemployment in the industry competing with them;
- a recession, falling spending, deficient aggregate demand → **cyclical** (demand-deficient);
- a regular time of year, or a temporary change in spending patterns → **seasonal**;
- could work at the going wage but chooses not to (benefits nearly as high as pay, holding out for a better job) → **voluntary**; willing at the going wage but no job → **involuntary**.

2. **Watch the traps.** A skilled person choosing between jobs is frictional, not structural; immobility explains structural, not cyclical, unemployment.

3. **Two-mark definition in a data question:** the cause, tied to the extract.

4. **"Is structural unemployment the same as the natural rate?"** No: the natural rate includes structural **and** frictional (and seasonal) unemployment.

Variants:

- **Frictional vs real-wage (classical) unemployment** (12 marks): use the labour-market diagram (frictional sits in the AJ–LF gap, real-wage in the ADL–AJ gap above equilibrium), with the cause and cure of each.
- **Which causes dominate in a developing country:** structural, seasonal (farming), underemployment and the informal sector, a fast-growing labour force; then judge.

2. Choose the policy that reduces a given type of unemployment (14 questions)

All multiple choice. Match the policy to the cause:

Type	Policy that works
Structural	education, training and retraining; regional grants; subsidies for new industries, new businesses and technology, or for labour-intensive production; help with moving; tariffs that shield an industry losing out to cheap imports (a short-term option with costs of its own)
Frictional	better information about vacancies (job centres, websites); lower or time-limited benefits that encourage faster search
Cyclical	demand-side: more government spending (for example infrastructure), lower taxes, lower interest rates, a lower exchange rate
Real-wage	wage flexibility, less union power, a lower minimum wage relative to pay
Regional	end national pay rates so wages can reflect local conditions; grants to firms that locate there
Seasonal	diversify the local economy; spread work across the year (it can be reduced)

Variants:

- **"Keynesian" or "demand-side"** means fiscal or monetary policy that raises total demand; training is supply-side.
- **A policy mix that cuts cyclical unemployment but raises frictional:** lower direct taxes raise AD, while higher benefits make longer searching affordable.
- **Which policy raises unemployment?** One that cuts AD, such as a big rise in indirect taxes.
- **Supply-side policies can reduce frictional unemployment** (information, benefit reform) is a true statement; interest rates do not change the natural rate.

3. Evaluate policies to reduce unemployment (11 questions)

Paper 4 essays (20 marks since 2023; 12- and 13-mark parts or 25-mark questions in 2021–2022) and 4–6 mark data-response parts. Questions name monetary policy, lower interest rates, fiscal policy, budget deficits, or policies for structural unemployment; some set Keynesian against monetarist views.

Plan (Table A, knowledge and analysis, 14 marks; Table B, evaluation, 6 marks):

1. **Define** the terms: unemployment, the type in the question, the policy (fiscal: government spending and taxation; monetary: interest rates, money supply; budget deficit: spending above tax revenue).
2. **Draw** a labelled diagram and refer to it: AD/AS for demand-side policy, a J/W graph if the question names one (without it the answer is capped), LRAS shifting right for supply-side policy.
3. **Analyse at least two developed chains**, for example: lower interest rates → cheaper borrowing → more investment and spending on credit → injections rise → income rises by a multiple → firms hire more → cyclical unemployment falls.
4. **Evaluate with at least three developed points** from "How effective" in "Understand it", starting with the type of unemployment (demand policy does not cure structural unemployment or change the natural rate).

5. **Conclude** on the question's own words ("can be used effectively", "will not be successful", "which view is more likely to be correct"): it depends on the mix of types, so a combination works best.

Data-response parts (4–6 marks): define the policy (2), then a diagram explained, with its effect on output and unemployment (up to 4). For structural unemployment, give two developed supply-side measures.

4. Labour mobility: factors, policies and effects of migration (9 questions)

1. **Sort the factor**: skills, education, training, qualifications → **occupational**; housing costs, transport, family ties, immigration controls → **geographical**.
2. **Policy**: retraining and more education spending improve occupational mobility; moving grants, housing and transport improve geographical mobility. A tax cut that raises AD, or advertising vacancies, does not change occupational mobility.
3. **Rising unemployment with rising vacancies** means workers cannot move into the jobs: occupational immobility.
4. **Inward migration**: growth rises and pressure for wage rises falls, because labour supply rises.

Data response (2–8 marks): link the extract's figures (migrants fill industries with many vacancies). For "evaluate the impact of more migration on macroeconomic performance" (8 marks), turn each migration point in "Understand it" (AS, AD and the multiplier, new businesses, remittances, displacement and its answer) into a point (1) with its development (1); an AD/AS diagram can earn marks. End with a conclusion: growth and employment better, current account probably worse.

5. Natural rate of unemployment: determinants and policies (8 questions)

All multiple choice.

1. **Raises or lowers the NRU**: use the table in "Understand it" (benefits, information, mobility, training, unions, minimum wage, taxes).
2. **Does not change the NRU**: demand-side policies (government spending on goods and services, interest rates), which change cyclical unemployment only.
3. "Why does X have a higher natural rate than Y?" Pick the factor that raises it which X has more of.

Variant: "**Which statement about unemployment benefits is not valid?**" Benefits do raise government spending and taxes, may weaken the urge to find a job, and may make it easier for firms to lay workers off; they do **not** force firms to raise wages.

6. Measure unemployment: labour force, rates, ILO definition (8 questions)

1. **Labour force** = employed (including self-employed) + unemployed. Leave out the inactive.
2. **Unemployment rate** = unemployed ÷ **labour force**; not ÷ total population, not ÷ employed.
3. **Employment rate** = employed ÷ working-age population, unless the question sets it up as in the first variant below.

4. **ILO unemployed:** no job, available, **actively seeking** work. A student hunting for a weekend job counts; a retiree, a parent who would like to work but is not searching, or a redundant worker who has stopped looking do not.

Variants:

- **Employment rate as the share of available labour in work.** Cambridge sometimes defines the employment rate as how fully the available labour is used. Spot it when the data give the working-age total and the number **seeking work but not working**, plus a group "not actively seeking work" who are not said to be out of work. Only the job-seekers are available but idle, so the employment rate is $\frac{\text{working age} - \text{seeking work}}{\text{working age}} \times 100$. For example, 60 million of working age with 3 million seeking work gives $\frac{57}{60} \times 100 = 95\%$; do not subtract the people not seeking work as well.
- If a question gives an employment rate and an unemployment figure **both as shares of the same age group**, add them to get the share economically active; the rest is inactive. For example, $71.5\% + 5.5\% = 77.0\%$ active, so 23.0% inactive.

7. Interpret (un)employment data and trends (8 questions)

1. **Rates are not numbers:** a higher unemployment rate does not mean more unemployed people unless the labour forces are the same size.
2. **Trends vs levels:** "the same trend" means both moved the same way; compare directions first, then sizes. Percentage points and percentage changes are different.
3. **Employment by industry graphs:** compare growth rates (the steepest proportional rise), not just which line is highest; check every line before concluding "only" or "always".
4. **Causes:** a rise in unemployment across many countries points to a global slowdown; a fall after a cut in interest rates points to more demand. Rising productivity with falling unemployment means more output from resources: efficiency has risen.
5. **Paper 4 parts** (3–5 marks): define the term asked (actual growth: a rise in real GDP), describe the relationship in the figures with numbers, explain it (less output needs fewer workers), and conclude where asked "consider". For why some workers were hit harder (for example by lockdowns): on-site, low-paid work that stops with demand, against work from home in a growing sector.

8. Hysteresis (4 questions)

1. **Definition:** a recession's high unemployment raises the natural rate itself, so unemployment does not fall back when demand recovers. The cause is what a long jobless spell does to people: their abilities go out of date and employers pass them over.
2. **Why demand policy fails:** a cut in interest rates raises demand, but the long-term unemployed no longer have the skills firms want.
3. **"Which explanation of persistent unemployment is not correct?"** Firms leaving, a rise in low-skilled migration and skill loss can all keep unemployment up; abolishing a minimum wage would tend to lower it.

9. Full employment, growth and technology (3 questions)

Essays.

1. **Define** full employment (everyone willing to work at the going real wage has a job; only frictional and structural unemployment remain, so unemployment is at its natural rate) and economic growth (a rise in real GDP over time).
2. **"Growth can only happen below full employment"**: below it, rising AD uses spare capacity (actual growth) with little inflation; at it, growth comes from capacity growing (LRAS right, PPC out), while more AD mainly causes inflation. Judgement: only partly true. Draw both (diagram 3, panels a and b).
3. **"New technology raises efficiency but causes unemployment"**: in the short run capital replaces labour in some industries (technological, a form of structural unemployment); in the long run lower costs raise demand and new industries create jobs. How far depends on occupational mobility and retraining.
4. **"Should reducing unemployment be a developing country's main aim?"**: it wastes resources and causes poverty, but underemployment and the informal sector blur it, and growth, inflation or the current account may matter more; each aim has an opportunity cost. Judge.

10. Consequences of rising unemployment (2 questions)

Rising unemployment means less income, so **aggregate demand falls**, **income-tax revenue falls**, **benefit spending rises**, the **budget deficit widens** and growth slows. Demand-pull inflation falls and imports fall. Spending on welfare does **not** fall.

Worked examples

Example 1

A country has 50 million people of working age. Of these, 36 million are employed, 4 million are unemployed and 10 million are economically inactive.

What is the unemployment rate?

A 8% **B** 10% **C** 11.1% **D** 20% **[1]**

The labour force is $36 + 4 = 40$ million, so the rate is $\frac{4}{40} \times 100 = 10\%$: **B** (1).

A divides by the working-age population ($\frac{4}{50}$); C divides by the employed ($\frac{4}{36}$); D is the inactivity rate ($\frac{10}{50}$). (The employment rate here is $\frac{36}{50} \times 100 = 72\%$.)

Example 2

Car-assembly plants in the north of a country close as production moves abroad. At the same time, firms in the south of the country cannot fill vacancies for software developers.

Which policy is most likely to reduce the unemployment that results?

A a cut in interest rates **B** paying unemployment benefit for a longer period **C** subsidised courses in programming together with grants towards the cost of moving **D** a rise in the national minimum wage **[1]**

The car workers are **structurally** unemployed: the vacancies need other skills (occupational immobility) in another region (geographical immobility). C tackles both: **C** (1). A cures cyclical unemployment only; B raises voluntary unemployment; D can cause real-wage unemployment.

Example 3

Extract: Before a recession, country K's unemployment rate was 4.6%. During the recession it rose to 7.8%. Two years after real GDP returned to its pre-recession level, unemployment was still 6.9%. The share of the unemployed who had been out of work for more than a year rose from 18% to 41%, and many of them had worked in shops and offices that never reopened.

(a) Calculate the rise in the unemployment rate during the recession, in percentage points and as a percentage change. **[2]**

(b) Using the information, explain why unemployment stayed high after output recovered. **[3]**

(c) Explain whether an increase in government spending would bring unemployment back to 4.6%. **[4]**

(a) $7.8 - 4.6 = 3.2$ percentage points (1). As a percentage change, $\frac{3.2}{4.6} \times 100 = 69.6\%$ (1).

(b) The share of long-term unemployed more than doubled, from 18% to 41% (1). After a year out of work people fall behind and employers pass them over, so they stay jobless when demand recovers: hysteresis (1). Shops and offices that never reopened turned cyclical unemployment into structural unemployment (1).

(c) Extra government spending raises aggregate demand through the multiplier, so firms produce more and hire more workers, which would cut any remaining cyclical unemployment (1) (1). But output is already back at its pre-recession level, so most of the extra $6.9 - 4.6 = 2.3$ points is likely to be structural or the result of hysteresis (1). More demand does not give those workers the skills firms want and may mainly raise inflation, so without retraining or wage subsidies unemployment is unlikely to return to 4.6% (1).

Example 4

A country's unemployment rate has stayed at 9% for three years since a recession ended. Evaluate the policies its government could use to reduce unemployment. **[20]**

Model answer (paragraph plan):

- 1. Definitions:** unemployment, the natural rate, cyclical unemployment. (AO1)
- 2. Diagnosis:** the 9% may be partly cyclical (output below Y_F on the AD/AS diagram) and partly natural, raised by hysteresis (the AJ-LF gap on the labour-market diagram). (AO1, AO2)

3. **Demand-side chain:** higher government spending on infrastructure is an injection; with a marginal propensity to withdraw of 0.4, the multiplier is $\frac{1}{0.4} = 2.5$, so an extra \$8bn of spending raises national income by \$20bn; firms need more workers, so cyclical unemployment falls. Lower interest rates work through investment and borrowing in the same way. (AO2)
4. **Supply-side chain:** retraining and wage subsidies for hiring the long-term unemployed bring them back into work; better vacancy information shortens searches; the natural rate falls and the LRAS shifts right. (AO2)
5. **Evaluation of demand-side policy:** three developed points from "How effective?" in "Understand it", above all that it reaches only the cyclical part. (AO3)
6. **Evaluation of supply-side policy:** it tackles the causes without adding to inflation, but it is slow, costly, may subsidise hiring that would have happened anyway, and benefit cuts can raise poverty. (AO3)
7. **Conclusion:** the right policy depends on how much of the 9% is cyclical. Since output has recovered, most of it is probably structural or caused by hysteresis, so supply-side measures aimed at the long-term unemployed should lead, supported by demand only if there is still a negative output gap. (AO3)

Table A top level (14): accurate definitions, accurate labelled diagrams used in the argument, at least two developed chains on each kind of policy. Table B top level (6): several developed evaluative points and a justified conclusion tied to the country described. **20/20**.

Common mistakes

- **Wrong base for a rate.** Dividing the unemployed by the total population or by the employed instead of by the labour force. In March 2022 (Paper 32 Q23) half the candidates chose the same wrong answer: Cambridge measured the employment rate against the labour available to work, and they wrongly counted people not seeking work as available (see type 6).
- **Missing "not".** In June 2024 (Paper 32 Q18) only 27% saw that "benefits force firms to raise wages" was the statement that is **not** valid. Underline "not" and "least likely".
- **Confusing the types.** In November 2021 (Paper 42 Q6) some candidates mixed up real-wage unemployment with other types, and those who could not explain structural unemployment in part (a) chose policies that did not answer part (b). Define the type before discussing its cure.
- **Treating all unemployment as one problem.** In June 2022 (Paper 41 and 43 Q7) weaker answers listed types without linking each to a policy. In March 2022 (Paper 42 Q6) and November 2022 (Paper 4) the best answers said budget deficits act on cyclical unemployment but not on the natural rate, which needs supply-side policy.
- **Too few chains.** In March 2023 (Paper 42 Q4), Level 3 needed at least two chains of reasoning linking the policy to unemployment; in June 2022 (Paper 4 Q6) the step from interest rates to spending to jobs was often missing.
- **Ignoring the context.** In November 2022 (Paper 4 Q5) answers set in the question's context scored more, and an injections–withdrawals graph allowed deeper analysis than a basic circular flow.

How to get the marks

- **Multiple choice:** identify the type of unemployment from its cause first, then match the policy. For calculations, write down the labour force before dividing.
- **Definitions** earn the first marks: full employment (a job for everyone willing to work at the going real wage; only frictional and structural unemployment remain), natural rate, equilibrium and disequilibrium unemployment, voluntary and involuntary unemployment, hysteresis, geographical and occupational mobility.
- **Diagrams:** label every axis and curve as in the three diagrams above, show the change and refer to it. If the question names a diagram ("with the help of"), an answer without it is capped.
- **Data response** is point-marked: define, use figures from the extract with units, and for "comment", "assess" or "evaluate" give both sides and a conclusion, which often has its own mark.
- **Essays:** since 2023, Table A (14) for definitions, diagram and analysis, Table B (6) for evaluation and a justified conclusion; in 2021–2022, levels, with the top level needing a diagram, both sides and a conclusion.
- **Always link policy to type:** "this works on cyclical unemployment but not on structural unemployment, so..." is the most reliable evaluative point in this topic.

Quick check

1. An economy's labour force is 12.5 million and its unemployment rate is 6%. Its working-age population is 16 million. Find the number unemployed, the number employed, the employment rate and the number economically inactive. **[3]**
2. Say whether each person is voluntarily or involuntarily unemployed, and name the type: (a) a graduate who has turned down two job offers while waiting for one in her own field; (b) a factory worker laid off when sales fell in a recession, who is applying for any job at the going wage; (c) someone whose benefits are almost as high as the take-home pay of the jobs on offer, who stays on benefits.
3. Define the natural rate of unemployment and give two reasons why it could be higher in one country than another. **[3]**
4. Classify each policy as improving geographical or occupational mobility: grants towards moving costs; free evening courses for adults; more affordable rental housing; recognising qualifications gained abroad.
5. Explain what is meant by hysteresis in unemployment. **[2]**

Answers

1. Unemployed = $0.06 \times 12.5 = 0.75$ million (1). Employed = $12.5 - 0.75 = 11.75$ million, so the employment rate is $\frac{11.75}{16} \times 100 = 73.4\%$ (1). Inactive = $16 - 12.5 = 3.5$ million, or 21.9% of the working-age population (1).
2. (a) Voluntary; frictional (she is searching for a better match). (b) Involuntary; cyclical (demand-deficient). (c) Voluntary; caused by the benefit system (an unemployment trap).
3. The unemployment that remains when the labour market is in equilibrium, so everyone willing to work at the going real wage has a job and only frictional and structural unemployment are left (1). Reasons it could be higher: more generous or longer-lasting benefits; stronger trade unions or a higher minimum wage; less training or lower labour mobility; poorer information about vacancies (any two, 1 each).
4. Geographical: moving grants, rental housing. Occupational: evening courses, recognising foreign qualifications (it lets people work in their trained occupation).
5. A spell of high unemployment raises the natural rate, so unemployment stays high after demand recovers (1), because people out of work for a long time fall behind on what employers need and are passed over for other applicants (1).

Past questions to try

- 9708/31/O/N/24 Q20: the unemployment rate from population data.
- 9708/32/M/J/25 Q20: why a cut in interest rates fails when there is hysteresis.
- 9708/42/O/N/21 Q6: frictional against real-wage unemployment, then policies for structural unemployment.
- 9708/42/F/M/22 Q6: an essay on budget deficits and the natural rate of unemployment.