

Cambridge AS & A Level · Economics 9708 · Notes

Links between macroeconomic problems and their interrelatedness

A2

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Read first: Government macroeconomic policy objectives, Price stability, Employment/unemployment, Current account of the balance of payments, Economic growth

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What you need to know

The previous topic listed the government's objectives. This one is about how they **affect each other**: a problem in one area spills into the others, and a cure for one can make another worse. You need to be able to explain:

1. **The internal and external value of money.** How the purchasing power of money at home (the internal value, which falls with inflation) and the exchange rate (the external value) move each other.
2. **The balance of payments and inflation.** How inflation changes the current account, and how a current account surplus or deficit (and the exchange rate it brings) changes inflation.
3. **Growth and inflation.** When faster growth brings inflation and when it does not, and how inflation affects growth.
4. **Growth and the balance of payments.** Why growth often worsens the current account, when it need not, and how the current account feeds back into growth.
5. **Inflation and unemployment**, using:
 - the **traditional Phillips curve**, a short-run trade-off between the two;
 - the **expectations-augmented Phillips curve**: short-run Phillips curves that shift with expected inflation, and a vertical long-run Phillips curve at the natural rate of unemployment.

How well particular policies solve these problems together is the next topic, *Effectiveness of policy options*; here the focus is on the links themselves, which every policy essay relies on.

Understand it

One economy, many connected problems

Inflation, unemployment, growth and the balance of payments are four views of the same economy, and they are joined by **aggregate demand (AD)** and **aggregate supply (AS)**. Almost every link in this topic is one of two chains:

- **Demand chain.** Something raises AD (more exports, lower interest rates, a tax cut). Output and jobs rise, and, the closer the economy is to full capacity, the more prices rise too. Higher incomes also buy more imports.
- **Cost chain.** Something raises firms' costs (dearer imports, higher wages, a tariff on materials). AS shifts left, so prices rise **and** output and jobs fall.

Before writing about any link, ask: "does this work through demand, through costs, or both?" That one question sorts out most multiple-choice options and gives every essay its structure.

1. The internal value and the external value of money

The **internal value** of money is how much it buys at home. When the price level goes up, each unit of currency buys less, so inflation **is** a fall in the internal value. If the consumer price index rises from 120 to 126 (5% inflation), a sum of money now buys $\frac{120}{126}$ of what it did, so its internal value has fallen by $(1 - \frac{120}{126}) \times 100 = 4.76\%$.

The **external value** is how much foreign currency it buys: the **exchange rate**. A fall is a depreciation (floating rate) or a devaluation (fixed rate).

Internal → external. If a country's inflation is faster than its trading partners':

1. its exports become dearer abroad and imports become relatively cheaper at home;
2. foreigners buy fewer of its exports, so they demand less of its currency, while residents buy more imports, so they supply more of it;
3. with a floating exchange rate, the currency **depreciates**.

So a fall in the internal value tends to bring a fall in the external value. Over the long run, countries with persistently high inflation see their currencies slide, roughly enough to offset the price gap. With a fixed rate, the pressure shows up instead as a worsening current account and a drain on the central bank's reserves.

External → internal. A fall in the exchange rate raises inflation in two ways:

- **Cost-push:** imported goods, fuel and raw materials cost more in home currency, so firms' costs and the price index rise. The more a country relies on imports, the stronger this is.
- **Demand-pull:** exports become cheaper abroad and imports dearer at home, so net exports ($X - M$) and AD rise.

A rise in the exchange rate does the opposite, holding inflation down.

One policy, both values. Some policies move both values the same way at once:

- A **cut in interest rates** (or **quantitative easing**) raises borrowing and spending, so inflation rises (internal value falls); it also makes saving in the currency less attractive, so short-term capital ("hot money") flows out and the currency depreciates (external value falls).
- A **rise in interest rates** lowers inflation and attracts capital: both values rise.

2. The balance of payments and inflation

Inflation → current account. Faster inflation than abroad makes the country's goods less price-competitive: exports fall and imports rise, so the current account worsens. How much depends on the **price elasticity of demand** for exports and imports: the more elastic, the bigger the effect.

Current account → inflation. Exports are an injection into the circular flow and imports a leakage, so the current account balance affects AD:

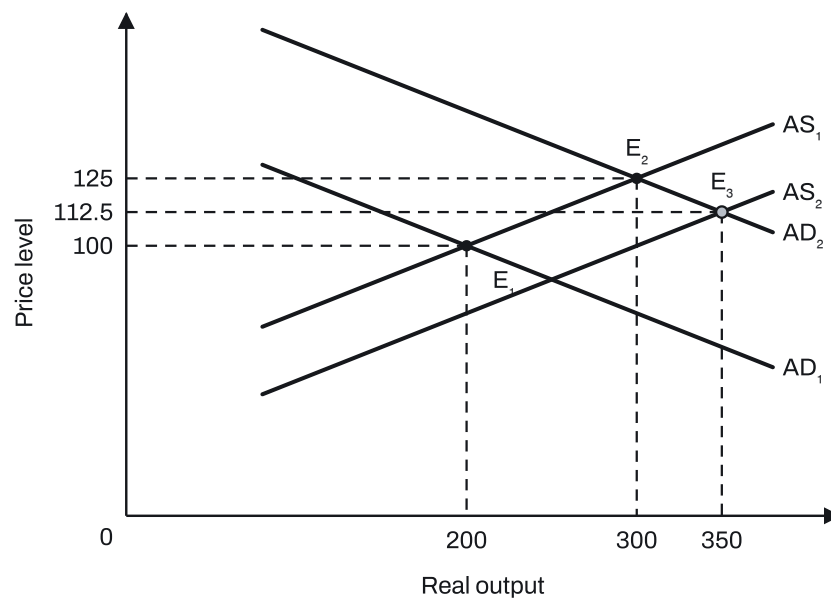
- A **bigger surplus** (exports up or imports down) raises AD, which raises output, jobs and, near capacity, inflation.
- A **bigger deficit** lowers AD. Under a **fixed** exchange rate nothing offsets this, so output falls, unemployment rises and the price level falls (or rises more slowly).
- Under a **floating** rate, a deficit pushes the currency down. That brings dearer imports (cost-push) and, as exports become cheaper, more demand for them (demand-pull). The demand-pull effect is biggest when demand for exports is **price elastic** (export sales rise a lot) and the economy has **little spare capacity** (low unemployment), so extra demand goes into prices rather than output.

Trade restrictions and migration. A **tariff** raises the price of imported goods directly (part of the price index), raises costs for firms that use imported materials (cost-push), and switches spending to home-produced goods, which raises AD (demand-pull). Restricting **immigration** reduces the supply of labour, so wages and costs rise in sectors that relied on migrant workers (cost-push), but it also means fewer consumers, which lowers AD.

A supply shock. For a country that imports oil, a rise in the world oil price raises costs (inflation up), raises the import bill (trade balance worse) and, as AS shifts left, cuts output (unemployment up): three problems at once.

Fixed exchange rates and inflation. To defend a fixed rate the central bank buys or sells its own currency. If it raises interest rates to fight inflation, capital flows in and pushes the currency up; to hold the rate, the central bank must **sell** its own currency, which adds to the money supply and undoes part of the anti-inflation policy. Under a fixed rate, monetary policy cannot aim at inflation and the exchange rate at the same time.

3. Growth and inflation



Demand-led growth brings inflation. When AD rises from AD_1 to AD_2 , real output rises from 200 to 300 (50%) but the price level also rises from 100 to 125 (25%). With lots of spare capacity, more of a rise in AD goes into output; near full capacity, more goes into prices, as firms compete for scarce labour and materials. Growth above the economy's trend rate creates a **positive output gap** and inflation.

Supply-led growth need not. If AS also grows to AS_2 (better technology, skills, infrastructure), the same demand gives output of 350 and a price level of only 112.5. Growth in productive capacity lets output rise with **less** inflation, which is why supply-side policy is the usual answer to "can we have both?".

Inflation affects growth too.

- Low, stable inflation helps: firms can plan, and steady profits encourage investment.
- High or unpredictable inflation harms: uncertainty discourages investment, exports lose competitiveness, and resources go into coping with rising prices (menu and shoe-leather costs).
- Inflation that is too low has risks too. If people expect **falling** prices, they delay spending, firms expect lower profits and invest less, and growth slows. A central bank with a 0% inflation target would also have little room to cut interest rates in a downturn. This is why most central banks aim for low positive inflation (around 2%) rather than zero.

4. Growth and the balance of payments

Growth usually worsens the current account. As incomes rise, people buy more of everything, including imports. The extra imports equal the **marginal propensity to import** times the rise in income: if income rises by \$40 bn and the marginal propensity to import is 0.25, imports rise by \$10 bn. If exports do not grow as fast, the deficit widens. If the growth also brings inflation, exports lose competitiveness, which widens it further.

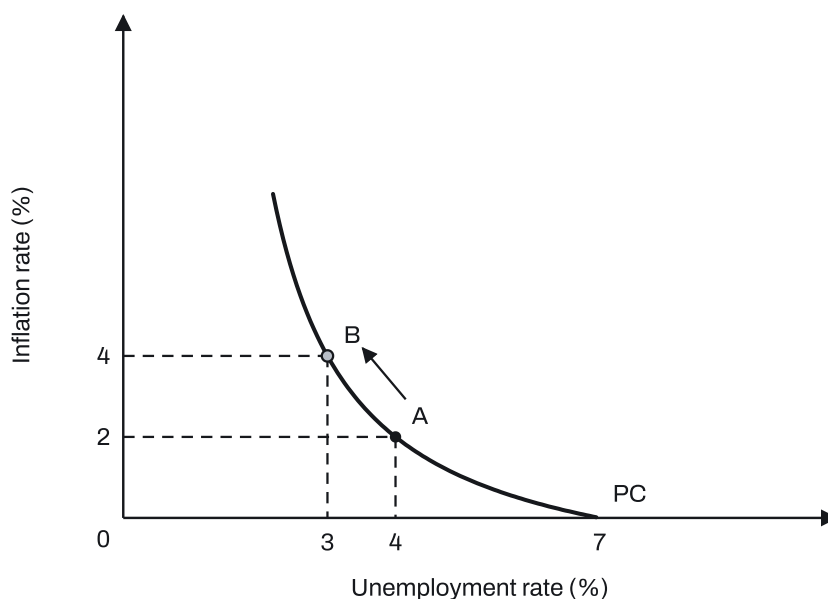
But not always. It depends on what drives the growth:

- **Export-led growth** improves the current account while raising output.
- **Supply-side growth** (higher productivity) lowers costs and makes exports more competitive.
- Growth driven by **foreign direct investment** may raise imports of machinery at first but later replace imports or add exports.
- If the country's own exports are in high demand because its trading partners are also growing, its exports rise alongside its imports.

The current account affects growth. A surplus adds to AD and growth; a deficit subtracts from it. And curing a deficit by **expenditure-reducing** policy (higher taxes or interest rates) works by cutting incomes, so it cuts imports but also cuts output and jobs: the clearest conflict between the two aims. Cutting spending reduces imports by the marginal propensity to import times the fall in income, so a large fall in income is needed for a small fall in imports when that propensity is low.

5. Inflation and unemployment: the traditional Phillips curve

In 1958 the economist A. W. Phillips showed that, in UK data over many decades, wage inflation was high when unemployment was low, and low when unemployment was high. Economists then drew the same shape with **price inflation**, giving the **Phillips curve**: the inflation rate (%) on the vertical axis against the unemployment **rate** (%) on the horizontal axis.



Why it slopes down. When unemployment is low, firms struggle to find workers, so they bid wages up, and workers have more bargaining power. Faster wage growth raises costs, and firms pass them on as higher prices. When unemployment is high, wage pressure eases and inflation falls.

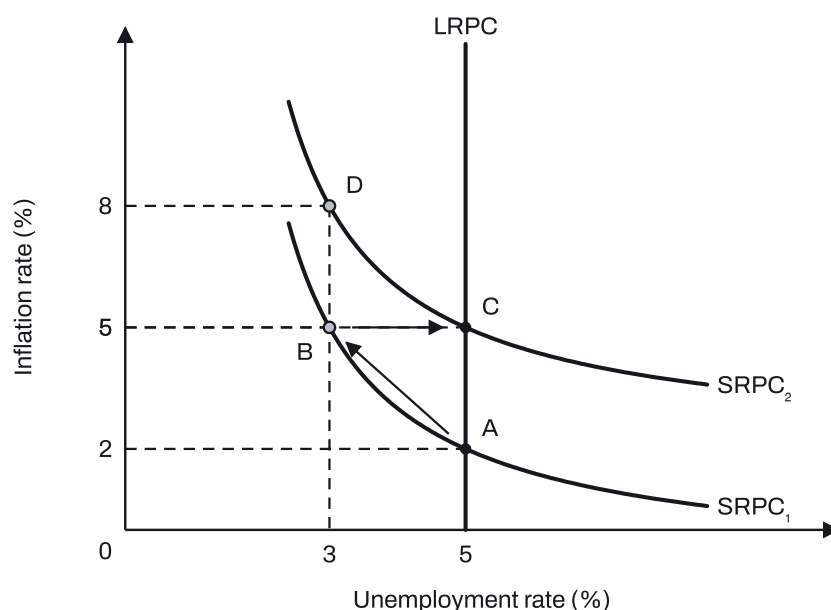
The trade-off. The curve suggests governments can **choose** a point on it: moving from A to B cuts unemployment from 4% to 3% at the cost of inflation rising from 2% to 4%. Expanding AD moves the economy up the curve; contracting AD moves it down. The curve is steeper at low unemployment, so each further cut in unemployment costs more inflation.

Reading data with it. A change agrees with the traditional Phillips curve when inflation and unemployment move in **opposite directions**: one rises while the other falls. Both rising, both falling, or one unchanged does not show the trade-off.

Why it broke down. In the 1970s many countries had high inflation **and** high unemployment at the same time (**stagflation**), which a single fixed curve cannot explain. Cost shocks such as oil-price rises (AS shifting left) were one cause; changing expectations were the other.

6. The expectations-augmented Phillips curve

Monetarist economists (Milton Friedman and Edmund Phelps) argued that workers care about **real** wages, so their wage demands depend on the inflation they **expect**. That gives a different short-run Phillips curve (**SRPC**) for each expected inflation rate, and a **long-run Phillips curve (LRPC)** that is vertical at the **natural rate of unemployment (NRU)**, the rate at which inflation is stable because actual and expected inflation are equal. The natural rate is also called the NAIRU (the non-accelerating inflation rate of unemployment). It is set by the supply side: frictional and structural unemployment.



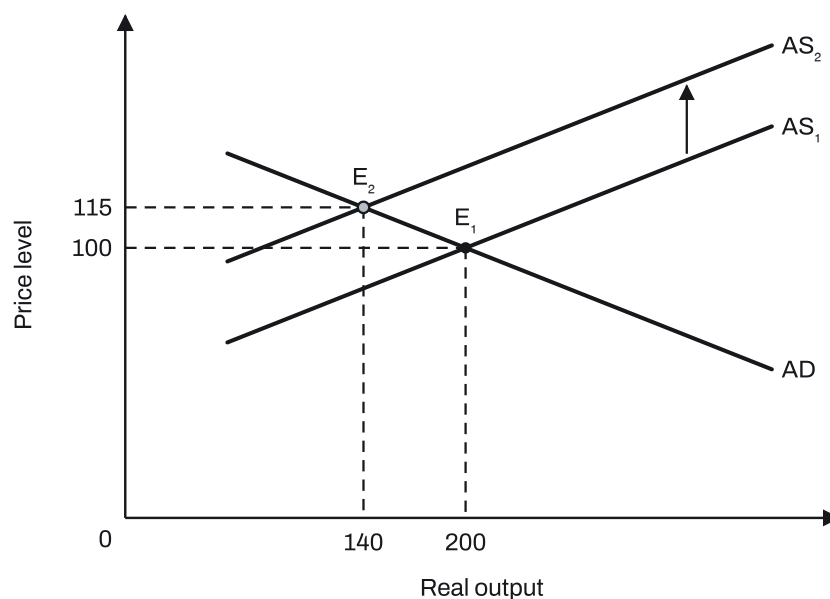
The story in the diagram.

1. **A (5%, 2%).** Unemployment is at the natural rate and inflation is 2%, exactly what people expect.
2. **A to B.** The government raises AD (fiscal or monetary expansion) to cut unemployment to 3%. Firms raise prices and offer higher money wages to hire more; workers accept jobs because money wages look better. Inflation rises to 5%: a movement **along** SRPC₁.
3. **B to C.** Workers find that prices have risen faster than they expected, so their **real** wages are lower than they thought. They revise their expectations up to 5% and demand bigger pay rises. Labour becomes dearer, firms cut back hiring, and unemployment drifts back to 5%. The SRPC **shifts up (to the right)** to SRPC₂. The economy ends at C: the same unemployment as at A, but higher inflation.

4. **To D and beyond.** If the government insists on 3% unemployment, it must push inflation to 8% (point D on $SRPC_2$), then higher again once expectations catch up. **Holding unemployment below the natural rate means accelerating inflation.**

What follows.

- In the **short run** there is a trade-off; in the **long run** there is none. Demand management cannot keep unemployment below the natural rate.
- **Expectations** decide where the SRPC sits: when unemployment is below the NRU, expectations rise and the SRPC shifts up; when it is above the NRU, they fall and it shifts down.
- **Bringing inflation down** works the same way in reverse: tighter policy pushes unemployment above the NRU for a time, expectations fall, and the SRPC shifts down. The more credible the central bank's inflation target, the faster expectations fall and the smaller the rise in unemployment.
- **Lowering unemployment for good** needs **supply-side policy** (training, better job matching, more flexible labour markets) that reduces the natural rate itself, shifting the LRPC to the left.
- **Stagflation** fits this picture: rising expectations, or a cost shock (diagram 4), shift the SRPC up, so inflation and unemployment can rise together.



A cost shock shifts AS from AS_1 to AS_2 : the price level rises from 100 to 115 (15%) while output falls from 200 to 140 (30%), so both inflation and unemployment rise. This is the situation where expanding AD to cut unemployment adds to inflation, and contracting AD to cut inflation adds to unemployment (a **negative output gap** with high inflation).

Other links worth knowing

- **Unemployment and the government budget.** When investment falls and unemployment rises, tax revenue falls and spending on benefits rises, so the **budget deficit** grows.

- **Interest rates and costs.** Higher interest rates normally cut inflation, but they also raise firms' borrowing costs, which some pass on as higher prices: a cost-push effect that can briefly push inflation the "wrong" way.
- **Government spending and price stability.** Any rise in spending (on health, education or anything else) adds to AD and can conflict with price stability in the short run; a rise in income tax, a limit on public-sector pay or a squeeze on credit works **with** price stability.
- **A budget surplus** (taxes above spending) lowers AD: unemployment rises in the short run, and lower incomes mean fewer imports, so the current account improves. If the surplus lets interest rates fall, capital may flow out and the currency fall, which affects the balance of payments again in the long run.

Key facts and formulas

There is no formula list in the 9708 exam, so every row is "Learn it".

Formula	Status
Internal value of money = what money buys at home; inflation is a fall in it. % change $= \left(\frac{P_{\text{old}}}{P_{\text{new}}} - 1 \right) \times 100$	Learn it
External value of money = the exchange rate (foreign currency per unit of home currency)	Learn it
Faster inflation than abroad → exports less competitive → current account worse → currency depreciates (floating rate)	Learn it
A fall in the exchange rate → dearer imports (cost-push) and more net exports (demand-pull) → higher inflation	Learn it
Change in imports = marginal propensity to import × change in income	Learn it
Direct effect of dearer imports on the price index $\approx$ share of imports in the basket × % rise in import prices	Learn it
Traditional Phillips curve: inflation rate (vertical) against unemployment rate (horizontal), sloping down: a short-run trade-off	Learn it
Expectations-augmented: inflation = expected inflation + a short-run effect that is positive when unemployment is below the natural rate	Learn it
Long-run Phillips curve: vertical at the natural rate of unemployment (NAIRU); holding unemployment below it means accelerating inflation	Learn it
Demand-led growth near capacity → inflation and a bigger current account deficit; supply-led growth → growth with lower inflation	Learn it

How to do it

We tagged 59 questions for this topic from March 2021 to March 2026 (51 different; 8 are repeats across paper variants): 42 Paper 3 multiple choice and 17 Paper 4 questions. One essay, [9708/42/O/N/22 Q6](#), has both parts on this topic, so the counts add up to 60.

Question type	Questions
Multiple choice: how a change in one aim affects the others	14
Multiple choice: Phillips curve theory	13
Multiple choice: inflation and unemployment data	10
Essay (20 or 25 marks): the effects of one policy or shock on the aims	8
Multiple choice: internal and external value of money	5
Essay part (13 marks): can the aims be achieved together?	5
Essay (20 marks): expectations, the Phillips curve and policy	3
Essay part (12 marks): internal and external value	1
Data response (8 marks): macroeconomic effects of a shock on two economies	1

Paper 4 essays are 20 marks since 2023 (in 2021–2022 they were 25 marks, usually split 12 + 13).

1. Multiple choice: how a change in one aim affects the others (14 questions)

1. **Say what changes first** (exports, investment, the oil price, the inflation rate, a policy).
2. **Trace it through AD or costs**: a rise in AD raises output and jobs, and prices near capacity; a rise in costs raises prices and cuts output.
3. **Read off each aim** the options ask about, and check the time scale ("in the short run").

Results to know:

- **Faster growth** in the short run → **higher employment** (not a surplus, lower inflation or a stronger currency).
- **Bigger current account surplus** → AD up → **higher inflation** (and more growth and jobs).
- **Higher inflation** → **more spending on imports**, fewer exports, current account worse.
- **Worse trade balance with a fixed exchange rate** → AD down → **unemployment up, price level down**.
- **Expansionary fiscal policy for growth** → helps **employment**, but threatens stable prices and the current account.
- **Fall in investment** → **unemployment** → tax revenue down, benefits up → **bigger budget deficit**.
- **Rise in oil prices for an oil importer** → **inflation up, trade balance worse, unemployment up**.
- **Devaluation that creates a trade surplus** → dearer imports and more AD → **harder to hit an inflation target**.
- **Higher interest rates** can **raise** inflation through firms' borrowing costs (cost-push).

- **Which pair of aims fit together?** Low inflation and a current account surplus do (competitive prices help exports). Conflicting pairs: a higher exchange rate with lower unemployment (exports suffer), rapid growth with sustainable development, a more even income distribution with a higher saving rate (the rich save more).
- **A diagram with equilibrium beyond LRAS** (output above full-employment output in the short run): employment and income per head are higher, but inflation is building.
- **"Which policy conflicts with price stability?":** any rise in government spending or other boost to AD; a tax rise, pay restraint or tighter credit does not.

2. Multiple choice: Phillips curve theory (13 questions)

1. **Axes:** inflation **rate** (vertical) and unemployment **rate** (horizontal). Not the price level, not the number unemployed, not interest rates or wages.
2. **What it shows:** a **negative** relationship between the inflation rate and the unemployment rate (the short-run curve).
3. **Recognise it from a description:** "expansionary policy boosts jobs and prices rise ever faster" is the Phillips curve (not the Laffer, Lorenz or Kuznets curve).
4. **Why only short run:** higher inflation leads people to **expect** more inflation, so the curve shifts.
5. **When the SRPC shifts up (right):** unemployment is **below** the natural rate and inflationary expectations are **rising**. It shifts down when unemployment is above the natural rate and expectations fall.
6. **Target below the natural rate** (for example natural rate 5%, target 3%) held by expansionary policy → **accelerating** inflation, not a high but constant rate.
7. **Movements on a diagram (monetarist view):** from equilibrium at the natural rate, a stimulus moves the economy **up along** the existing SRPC to lower unemployment, then **across** to the higher SRPC back at the natural rate. Find the point at the NRU on the original SRPC, then the point at lower unemployment on the same curve, then the point on the LRPC on the higher SRPC.
8. **At the natural rate, more government spending conflicts with low inflation** when expectations are unchanged (it simply moves the economy up the SRPC); falling expectations, higher productivity or a bigger labour force would all ease the conflict.

3. Multiple choice: inflation and unemployment data (10 questions)

1. **Work out the direction of each change:** write $\uparrow$, $\downarrow$ or $=$ for unemployment and for inflation, for each pair of consecutive years (or each country between two dates).
2. **A change agrees with the Phillips curve** (shows a trade-off) only when the two move in **opposite** directions. Both up, both down, or either unchanged does not.
3. **Pick the answer:**
 - "Which change agrees?": the only pair with opposite arrows.
 - "Which countries had a trade-off / a typical Phillips curve?": every country with opposite arrows, and only those.

- "Which statement is most supported?": if **every** year shows opposite moves, the data are **entirely consistent** with the theory.
- 4. **When the question states its own expectation** (for example "inflation is lowest when unemployment is low"), test **that** statement, not the Phillips curve: the year that contradicts it most is the one furthest from it (say, the lowest inflation together with the highest unemployment).
- 5. **When one series barely moves** (unemployment stays within a few tenths of a point while inflation swings), the data show at most a **marginal** effect. Do not claim cause and effect, or an exact correlation, from a few months of figures.
- 6. **Comparing countries' unemployment changes**: the one with faster growth of GDP usually cut unemployment more (more output needs more workers).

4. Essay (20 or 25 marks): the effects of one policy or shock on the aims (8 questions)

For example: the effect of a fall (or rise) in the exchange rate on the macroeconomic aims; the effect of a tariff and limits on immigration on inflation; whether a central bank should target 0% inflation; whether a budget surplus or expenditure-reducing policy cuts a deficit at the cost of jobs; whether floating the exchange rate cures unemployment but causes inflation later.

1. **Define** the policy or shock and every aim the question names (inflation, unemployment, growth, the current account, the exchange rate). (AO1)
2. **Analyse the demand chain**: how it changes AD (through $X - M$, consumption, investment or government spending) and so output, jobs and, near capacity, prices. Use an AD/AS diagram (diagram 3), or the multiplier. (AO2)
3. **Analyse the cost chain**: how it changes costs (import prices, wages, borrowing costs) and so AS (diagram 4). (AO2)
4. **Cover at least two aims** in developed chains when the question says "the aims" (mark schemes put two developed aims at the top level), and use the links between them: for instance, the extra jobs come with extra inflation (the short-run Phillips curve). (AO2)
5. **Evaluate** with what the outcome depends on. (AO3)
6. **Conclude** in the question's own words: which effect is likely to dominate, and in the short run or the long run. (AO3)

The links to use for the most common shocks:

Shock or policy	Demand chain	Cost chain	What it depends on (evaluation)
Fall in the exchange rate	X cheaper abroad, M dearer $\rightarrow X - M$ up $\rightarrow$ AD up $\rightarrow$ growth, jobs; current account improves	dearer imported goods and materials $\rightarrow$ cost-push inflation	spare capacity to meet the extra demand; price elasticity of demand for exports and imports (many commodity exports are inelastic); share of trade in GDP; debts in foreign currency become dearer to repay; short-run jobs bought with inflation (Phillips curve)

Shock or policy	Demand chain	Cost chain	What it depends on (evaluation)
Rise in the exchange rate	X dearer, M cheaper → $X - M$ down → AD down → slower growth, fewer jobs; current account worse	cheaper imported materials → lower inflation	why the currency rose (strong demand for exports, capital inflows such as FDI); elasticities; size of the marginal propensity to import
Tariff on imports	spending switches to home goods → AD up → demand-pull	dearer imports in the price index and dearer imported materials → cost-push (AS left)	price elasticity of supply of home-produced substitutes; spare capacity; retaliation by trading partners
Limits on immigration	fewer consumers → AD lower → less demand-pull	smaller labour supply → higher wages → cost-push	whether home workers are willing and able to fill the jobs; which sectors relied on migrants
Cut in interest rates or quantitative easing	more borrowing and spending → AD up; capital outflow → depreciation → $X - M$ up	dearer imports after the depreciation	state of the economy (spare capacity, confidence); interest elasticity of investment
Budget surplus or expenditure-reducing policy	AD down → fewer imports (current account better) but less output and more cyclical unemployment	lower wage pressure → lower inflation	the cause of existing unemployment (cyclical or structural); spare capacity; whether buyers switch to home-produced goods; any fall in interest rates and the exchange rate
Inflation target of 0%	tight policy keeps AD low → slower growth, more unemployment	stable costs; real wages adjust less easily	expectations of falling prices delay spending; no room to cut interest rates; capital outflows if rates are low; a 0% target is not the same as 0% inflation
Floating a fixed exchange rate	interest rates can be cut to raise AD without defending the rate; depreciation adds to exports → jobs	depreciation raises import prices → cost-push in the long run; the money supply is no longer tied to the exchange rate	the type of unemployment (cuts help cyclical, not structural); world prices; how far the currency falls

When the question asks for a diagram, draw it: mark schemes cap answers without a relevant diagram.

5. Multiple choice: internal and external value of money (5 questions)

1. **Internal value** moves opposite to the inflation rate (or price level): more inflation, lower internal value.
2. **External value** is the exchange rate.

3. Trace the change:

- **Prices rise faster at home than abroad** → internal value falls; exports less competitive → external value falls.
- **Cut in interest rates or quantitative easing** → more spending, more inflation → internal falls; capital outflow → external falls.
- **Depreciation in a country that imports many raw materials** → external falls; dearer imports → inflation → internal falls.
- **Rise in interest rates** → both rise.

6. Essay part (13 marks): can the aims be achieved together? (5 questions)

For example: whether a government can reach all its key aims at once; whether growth always cuts unemployment and what problems it causes; whether growth is possible without a current account deficit; whether a persistent deficit can be cured without sacrificing other aims; whether fixing the exchange rate conflicts with fighting inflation.

1. **Define** the aims in the question (and, where relevant, a persistent deficit or a fixed exchange rate and how the central bank holds it). (AO1)
2. **Analyse at least two conflicts** as full chains, for example:
 - growth and unemployment against inflation (diagram 3, AD_1 to AD_2 ; the Phillips curve);
 - growth against the current account (higher income $\times$ marginal propensity to import → more imports);
 - curing a deficit against growth and jobs (expenditure-reducing policy cuts incomes); against inflation (a devaluation raises import prices);
 - fighting inflation against a fixed exchange rate (higher interest rates → capital inflow → central bank sells its currency → more money).
3. **Question the statement:** growth from new technology may raise output without raising jobs; export-led or supply-side growth need not worsen the current account; with spare capacity, growth brings little inflation. (AO2/AO3)
4. **Conclude** with what it depends on: spare capacity, the source of growth (demand-led or supply-led), the time scale. (AO3)

Most of these parts' mark schemes put **at least two analysed conflicts plus a conclusion** at the top level and one analysed conflict at the level below. Where the statement has two parts (for example "growth always cuts unemployment **but** causes other problems"), answer both.

7. Essay (20 marks): expectations, the Phillips curve and policy (3 questions)

For example: the consequences for fiscal policy of people changing their inflation expectations; using fiscal policy against stagflation (high inflation with a negative output gap).

1. **Define** inflation, the natural rate of unemployment (NAIRU) and, if asked, the output gap and fiscal policy. (AO1)

2. **Draw and explain** the short-run trade-off (diagram 1), then the expectations-augmented version (diagram 2): expansion moves the economy along the SRPC, workers chase lost real wages, the SRPC shifts up, unemployment returns to the natural rate at higher inflation (a wage-price spiral). (AO2)
3. **Apply it to the policy:** expansionary fiscal policy cuts unemployment only temporarily and leaves higher inflation; contractionary fiscal policy cuts inflation but raises unemployment until expectations fall. For stagflation, use AD/AS (diagram 4): cutting AD lowers inflation but widens the negative output gap; raising AD closes the gap but adds to inflation. (AO2)
4. **Evaluate:** how quickly expectations adjust and how credible the government is; the shape of AS (Keynesians argue it is flat with spare capacity in the short run); whether the Phillips relationship still holds (stagflation in the 1970s; low inflation with low unemployment in the 2000s, helped by global trade and weaker union power); supply-side policy as the alternative that cuts both inflation and unemployment by lowering the natural rate; crowding out. (AO3)
5. **Conclude:** demand management works only in the short run; lasting gains need supply-side measures. (AO3)

8. Essay part (12 marks): internal and external value (1 question)

1. **Define** both: internal value = purchasing power at home (linked to inflation); external value = exchange rate. (AO1)
2. **Analyse** one direction fully: higher inflation than trading partners → exports less competitive, imports more attractive → less demand for and more supply of the currency → depreciation. (AO2)
3. **Add the feedback:** depreciation → dearer imports → more inflation, which can repeat. (AO2)
4. **Comment** on the exchange rate system: under a fixed rate the pressure shows in the reserves and the current account instead, and may end in a devaluation. (AO2/AO3)

The top level needs both terms defined **and** the link between a change in one and the effect on the other analysed.

9. Data response (8 marks): macroeconomic effects of a shock on two economies (1 question)

1. **Treat each economy separately;** the same shock often works through a different route in each (for example, falling oil exports for one, falling fuel-tax revenue for another).
2. **For each, give a developed chain:** what falls or rises → which component of AD (C , I , G or $X - M$) or the budget → the effect on output, jobs, inflation or the deficit. Use the extract's figures.
3. **Add one evaluative comment per economy** ("it depends on..."): a different comment for each.

Worked examples

Example 1

A country has a floating exchange rate and an unemployment rate of 3%, close to its lowest sustainable level. World demand for its exports rises sharply.

What is the most likely short-run effect on its inflation rate and on the external value of its currency?

	inflation rate	external value
A	falls	falls
B	falls	rises
C	rises	falls
D	rises	rises

[1]

Exports are an injection, so AD rises; with little spare capacity, much of the extra demand goes into prices: inflation **rises**. Foreigners need more of the country's currency to pay for its exports, so demand for it rises and the external value **rises** (which later eases inflation a little by making imports cheaper). **D** (1).

Example 2

The table shows an economy's unemployment rate and inflation rate over five years.

year	unemployment rate (%)	inflation rate (%)
1	5.4	2.0
2	5.9	2.6
3	5.9	2.2
4	5.2	1.8
5	4.7	2.5

Which change between consecutive years agrees with the traditional Phillips curve?

A year 1 to year 2 **B** year 2 to year 3 **C** year 3 to year 4 **D** year 4 to year 5

[1]

change	unemployment	inflation	opposite directions?
1 → 2	↑ (5.4 to 5.9)	↑ (2.0 to 2.6)	no
2 → 3	= (5.9)	↓ (2.6 to 2.2)	no

change	unemployment	inflation	opposite directions?
3 → 4	↓ (5.9 to 5.2)	↓ (2.2 to 1.8)	no
4 → 5	↓ (5.2 to 4.7)	↑ (1.8 to 2.5)	yes

Only year 4 to year 5 shows the trade-off: **D** (1).

Example 3

Extract. Country T imports most of its fuel and 30% of the goods in its consumer price index are imported. Its unemployment rate is 4%, close to the natural rate. Over one year its currency falls from T\$4.00 to T\$5.00 per US dollar. A barrel of imported fuel priced at US\$80 and one of its main exports, priced at T\$600, are traded at unchanged prices in their own currencies. Demand for its manufactured exports is price elastic.

(a) Calculate the percentage change in the external value of the T\$ against the US dollar, the new T\$ price of a barrel of fuel and the new US\$ price of the export. **[3]**

(b) Evaluate the likely effects of the depreciation on Country T's inflation rate and its current account balance. **[8]**

(a) One T\$ was worth $\frac{1}{4} = 0.25$ US\$ and is now worth $\frac{1}{5} = 0.20$ US\$: a fall of $\frac{0.20-0.25}{0.25} \times 100 = -20\%$ (1).

Fuel: $\text{US\$}80 \times 4 = \text{T\$}320$ before and $\text{US\$}80 \times 5 = \text{T\$}400$ after, a rise of 25% (1). Export: $\text{T\$}600 \div 4 = \text{US\$}150$ before and $\text{T\$}600 \div 5 = \text{US\$}120$ after, a fall of 20% (1).

(b) *Model answer.*

- **Inflation, cost-push.** Fuel now costs 25% more in T\$ (1), raising transport and production costs, which firms pass on as higher prices (1). If import prices in T\$ rise by the full 25%, imports alone add about $0.30 \times 25 = 7.5$ percentage points to the price index (1).
- **Inflation, demand-pull.** Exports are 20% cheaper in US\$ and demand is price elastic, so export sales rise strongly (1), raising AD; with unemployment near the natural rate there is little spare capacity, so the extra demand pushes prices up (1).
- **Current account.** Elastic demand means export **revenue** rises (1); dearer imports lead residents to switch to home-produced goods, so spending on imports may fall (1), and the current account improves.
- **Evaluation.** The current account may first get **worse**: fuel is a necessity with inelastic demand, so the import bill in T\$ rises before quantities adjust (1). And the rise in inflation erodes the competitive gain: if T's prices rise 7.5% or more, much of the 20% advantage disappears and wage claims may follow, so the improvement may be temporary (1).

Inflation chains, up to 4; current account, up to 2; evaluation, up to 2. **8/8**

Example 4

"A government can never reduce unemployment below the natural rate without causing ever-rising inflation." Evaluate this statement. **[20]**

Model answer (paragraph plan):

1. **Definitions:** the natural rate of unemployment as the rate at which inflation is stable, made up of frictional and structural unemployment; inflation as a sustained rise in the general price level; expectations as people's view of future inflation, formed from recent experience. (AO1)
2. **The traditional view,** with diagram 1: a stable trade-off, so a government could hold unemployment at 3% if it accepted 4% inflation; the reasons it slopes down (tight labour market → faster wage growth → higher prices). (AO2)
3. **The monetarist case for the statement,** with diagram 2: from A, expansion moves the economy along $SRPC_1$ to B; workers find real wages lower than expected, raise expectations, and the $SRPC$ shifts up; unemployment returns to 5% at C with 5% inflation. Holding 3% needs 8% inflation, then more: inflation accelerates because expectations keep chasing it. (AO2)
4. **The long-run conclusion:** the $LRPC$ is vertical, so demand management only buys a temporary fall in unemployment. (AO2)
5. **Evaluation 1, how fast expectations adjust:** if people adjust slowly, or the central bank's target is trusted, the short-run gain can last several years with little extra inflation. (AO3)
6. **Evaluation 2, spare capacity:** if unemployment is actually cyclical (unemployment is above the natural rate, so output is below potential), more AD lowers unemployment towards the natural rate without accelerating inflation; the statement only applies once the economy is at the natural rate. Estimates of the natural rate are uncertain. (AO3)
7. **Evaluation 3, the natural rate can move:** supply-side policies (training, job-matching, labour-market reform) lower the natural rate and shift the $LRPC$ left, so unemployment can fall permanently without rising inflation; global competition and weaker wage bargaining may also have flattened the $SRPC$. (AO3)
8. **Conclusion:** true for demand-side policy held below the natural rate for long; false for supply-side policy that lowers the natural rate, and in a recession with spare capacity. (AO3)

Table A top level (14): accurate definitions, both Phillips diagrams drawn and explained in the text, the mechanism of expectations fully developed. Table B top level (6): developed judgements on what the outcome depends on and a conclusion that answers "never". **20/20**

Common mistakes

- **Answering a different question about inflation.** In March 2026 (Paper 42 Q4, on a 0% inflation target) weaker answers wrote about types and causes of inflation, or about 0% inflation rather than a 0% **target**, so much of what they wrote earned nothing. Stay on the exact wording: the target, the shock or the policy named.
- **Not testing the statement.** In March 2023 (Paper 42 Q4) many candidates accepted that expenditure-reducing policies cause significant unemployment without asking **how much**. Evaluation means questioning the extent: the state of the economy, the type of unemployment, buyers switching to home-produced goods.

- **Muddling how the balance of payments works.** In June 2023 (Paper 41 Q4, on a budget surplus), balance of payments effects were weakly applied, and many candidates wrote that the government receives revenue from exports. Exports earn money for firms; the link to the budget is through AD, incomes and imports.
- **Only one link between growth and the current account.** In November 2021 (Paper 41 Q7(b)) answers mostly said "growth → higher incomes → more imports → deficit". Fewer compared demand-side growth with supply-side growth, or asked how big the effect on imports would be. Give both sources of growth and judge the size.
- **Answering half of a two-part statement.** In November 2021 (Paper 43 Q6(b)) the second half, on conflicts between growth and other aims, was weak or missing because time ran out on the first half. Plan time for every part of the statement.
- **Vague answers on exchange rate systems.** In November 2022 (Paper 43 Q7, on moving from a fixed to a floating rate) few answered, and those who did gave general comments rather than linking the exchange rate system to unemployment and inflation. Work through the mechanism: what the central bank must do under each system, and what that does to interest rates, AD and import prices.
- **Treating two economies as one.** In June 2024 (Paper 42 Q1(d)) a minority described the switch to electric vehicles as if it affected Saudi Arabia and Singapore in the same way, and few added evaluation. Keep each economy's route separate and give each its own evaluative point.
- **Reading the question backwards.** In November 2021 (Paper 32 Q29) only 29% chose the right answer to which policy would **conflict** with price stability; 41% chose a rise in income tax, which in fact helps price stability by cutting spending. Underline "conflict", "least", "not" before choosing.
- **Wrong Phillips curve axes.** It is the inflation **rate** against the unemployment **rate**, not the price level or the number unemployed.
- **Moving along when you should shift.** A change in AD moves the economy **along** an SRPC; a change in expected inflation **shifts** it. The LRPC moves only if the natural rate changes.

How to get the marks

- **Multiple choice:** decide whether the change works through demand, through costs or both, then trace it to each aim in the options. For data, write arrows for every change before choosing.
- **Definitions first:** internal value as purchasing power at home (inflation), external value as the exchange rate; the natural rate as the unemployment rate where inflation is stable. Examiners in November 2022 (Paper 42 Q6(a)) singled out answers that defined internal and external value in terms of inflation and the exchange rate as having the basis for a strong answer.
- **Analyse** means developed chains with every step written out: "the currency falls → imported fuel costs more in home currency → firms' costs rise → AS shifts left → the price level rises". A chain that jumps from the cause to the result earns little.
- **Diagrams:** Phillips curves with axes **inflation rate (%)** and **unemployment rate (%)**, SRPCs labelled with expected inflation and a vertical LRPC at the natural rate; AD/AS with **price level** and **real output**, before and after. Refer to each diagram in your text. When the question says "with the aid of a diagram", no diagram caps your mark (to 8 marks, or Level 2, in recent mark schemes).

- **"Evaluate" and "discuss":** give the other side and say what the outcome **depends on** (spare capacity, price elasticities, the speed of expectations, the source of growth, short run against long run), then a conclusion in the question's own words. Examiners award the higher evaluation level only when the "it depends" point is explained, not just stated.
- **20-mark essays:** Table A (AO1 + AO2, 14 marks) rewards knowledge, diagrams and analysis of at least two aims or links; Table B (AO3, 6 marks) rewards developed evaluation and a justified conclusion. Older 12- and 13-mark parts were marked in levels, with two analysed conflicts and a conclusion needed for the top level.
- **Data response:** use the extract's figures in your chains, keep each country or case separate, and add one different evaluative comment for each.

Quick check

1. A country's consumer price index rises from 120 to 126 in a year. What is the inflation rate, and by what percentage has the internal value of its money fallen (2 d.p.)?
2. Use diagram 2. From point C the government again pushes unemployment down to 3%. What inflation rate does this bring? If expectations then catch up and the government still holds unemployment at 3%, what inflation rate is needed next?
3. National income rises by \$40 bn and the marginal propensity to import is 0.25. Exports are unchanged and the current account was in deficit by \$4 bn. What is the new current account balance?
4. Explain why a central bank that is fixing its exchange rate may find it hard to reduce inflation by raising interest rates. [4]
5. Which policy is most likely to reduce both inflation and unemployment in the long run? **A** a cut in income tax financed by government borrowing **B** a rise in interest rates **C** training and job-matching schemes that lower the natural rate of unemployment **D** a devaluation of the currency

Answers

1. Inflation = $\frac{126-120}{120} \times 100 = 5\%$. Internal value falls by $(1 - \frac{120}{126}) \times 100 = 4.76\%$: each unit of money buys $\frac{120}{126}$ of what it did.
2. SRPC₂ (expected inflation 5%) gives 8% inflation at 3% unemployment (point D). Once expectations rise to 8%, the SRPC shifts up by another 3 points, so holding 3% unemployment needs 11% inflation: inflation accelerates.
3. Imports rise by $0.25 \times \$40 \text{ bn} = \10 bn , so the deficit grows from \$4 bn to \$14 bn: a current account balance of −\$14 bn.
4. Higher interest rates attract short-term capital from abroad, which raises demand for the currency and pushes it up (1). To hold the fixed rate, the central bank must sell its own currency in exchange for foreign currency (1). That increases the money supply in the economy (1), which keeps spending up and so works against the aim of lower inflation (1).
5. **C.** Lowering the natural rate shifts the LRPC to the left, so unemployment can fall without raising expected inflation. A raises AD (more inflation), B cuts inflation but raises unemployment for a time, D raises import prices (more inflation).

Past questions to try

- 9708/33/M/J/24 Q21: the movements between short-run Phillips curves after a fiscal stimulus.
- 9708/32/O/N/23 Q21: which countries show a trade-off between inflation and unemployment.
- 9708/42/F/M/22 Q7: part (b), fixing the exchange rate while fighting inflation.
- 9708/41/O/N/21 Q7: part (b), whether growth always causes a current account deficit.