

Cambridge AS & A Level · Economics 9708 · Notes

Fiscal policy AS

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Read first: [Introduction to the circular flow of income](#), [Government macroeconomic policy objectives](#)

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What you need to know

By the end of this topic you should be able to:

1. **Say what the government budget is:** the government's plan of how much it will spend and how much revenue (mostly taxes) it will raise over a year.
2. **Tell a budget deficit from a budget surplus:** a deficit is spending greater than revenue, a surplus is revenue greater than spending, and a balanced budget is the two equal.
3. **Explain what the national debt is and why it matters:** the total the government owes from all its past borrowing, and the costs and risks it brings.
4. **Describe taxes:** direct and indirect taxes; progressive, regressive and proportional taxes; the marginal rate of tax (mrt) and the average rate of tax (art); and the reasons governments tax.
5. **Describe government spending:** capital (investment) spending and current spending, and the reasons governments spend.
6. **Tell expansionary fiscal policy from contractionary fiscal policy.**
7. **Use AD/AS diagrams** to show how expansionary and contractionary fiscal policy change the equilibrium level of national income and real output, the price level and employment.

Understand it

Fiscal policy and the budget

Fiscal policy is the government's use of its own **spending**, **taxation** and **borrowing** to influence the economy. It is set out in the **government budget**, usually once a year: how much the government plans to spend, on what, and how it will raise the money.

Keep fiscal policy apart from the other two macroeconomic policies. Interest rates, the money supply, credit rules and the exchange rate are **monetary policy**. Policies to raise the economy's productive capacity (training, deregulation, privatisation) are **supply-side policy**, although some of them use fiscal tools such as tax incentives or spending on education.

Deficit, surplus and balance

Compare spending with revenue:

Budget position	Meaning
Budget deficit	Government spending > government revenue: the gap is borrowed
Budget surplus	Government revenue > government spending: the extra can repay debt
Balanced budget	Spending = revenue

For example, a government that raises \$300bn and spends \$340bn has a budget deficit of \$40bn. If GDP is \$2000bn, that is a deficit of $\frac{40}{2000} \times 100 = 2\%$ of GDP. Countries are compared using the deficit as a percentage of GDP, because \$40bn is huge for a small economy and small for a large one.

The budget balance is about the **government's** own accounts. It has nothing to do with the **current account** of the balance of payments (exports and imports), which is a different "deficit". Exports do not earn revenue for the government.

The national debt

Each year's deficit is borrowed, usually by selling government bonds to banks, firms, households and foreign investors. The **national debt** is the **total of all past borrowing that has not yet been repaid**. A deficit adds to it; a surplus can be used to reduce it.

Continuing the example: if the national debt was \$1200bn (60% of GDP), the \$40bn deficit raises it to \$1240bn (62% of GDP). If GDP then grows by 5% to \$2100bn, the debt is $\frac{1240}{2100} \times 100 = 59.0\%$ of GDP: the debt **ratio** can fall even while the debt itself rises.

Why the national debt matters:

- **Interest has to be paid.** At 4% a year, a debt of \$1240bn costs \$49.6bn in interest. That money cannot be spent on schools or hospitals (an opportunity cost), or it needs higher taxes.
- **Future taxpayers bear it.** Borrowing now means higher taxes or lower spending later.
- **Interest rates may rise.** Heavy government borrowing competes with firms for the same savings, which can push up interest rates and **crowd out** private investment.
- **Debt held abroad** means interest flows out of the country, worsening the current account.
- **Confidence.** If lenders doubt a government can repay, they demand higher interest or stop lending.
- **It depends what the money bought.** Debt used for roads, ports or education can raise future output and tax revenue; debt used for day-to-day spending does not. A debt that is small relative to GDP, and mostly owed to the country's own citizens, is less of a worry.

Taxes: direct and indirect

- **Direct taxes** are taxes on income and wealth, paid straight to the government by the person or firm that earns or owns it: income tax, corporation tax (on company profits), capital gains tax, inheritance tax, a wealth tax.
- **Indirect taxes** are taxes on spending, collected by the seller and passed on in the price: sales tax or VAT/GST, excise duties on fuel, alcohol and cigarettes, a carbon tax on goods, an air passenger tax, import tariffs.

Taxes: progressive, regressive and proportional

These describe how the **proportion** (percentage) of income paid in tax changes as income rises. The **amount** paid is not the test: the rich nearly always pay more dollars.

Type	As income rises, the proportion of income paid in tax...	mrt compared with art
Progressive	rises	mrt > art
Proportional	stays the same	mrt = art
Regressive	falls	mrt < art

The **average rate of tax** is the share of total income paid in tax; the **marginal rate of tax** is the share of an **extra** dollar of income taken in tax:

$$\text{art} = \frac{\text{total tax paid}}{\text{total income}} \times 100 \quad \text{mrt} = \frac{\text{change in tax paid}}{\text{change in income}} \times 100$$

Three examples:

- **A tax-free allowance plus one rate is progressive.** The first \$10 000 is tax-free and the rest is taxed at 20%. Income \$20 000 pays \$2000 (art 10%); \$50 000 pays \$8000 (art 16%); \$100 000 pays \$18 000 (art 18%). The mrt is 20% throughout, but the art rises towards it, so the tax is progressive.
- **One rate on all income is proportional.** A 15% tax with no allowance takes \$3000 from \$20 000 and \$15 000 from \$100 000: 15% each time.
- **A fixed sum is regressive.** A \$500 licence fee is 2.5% of a \$20 000 income but only 0.5% of \$100 000.

Most income taxes are progressive because they have a tax-free allowance and higher rates in higher bands.

Indirect taxes are usually regressive: poorer households spend a bigger share of their income, so a 10% sales tax takes a bigger share of it. A household earning \$20 000 that spends \$18 000 pays \$1800 in sales tax, 9% of its income; one earning \$100 000 that spends \$50 000 pays \$5000, only 5%. A specific tax on cigarettes is even more regressive, because poorer people spend a larger share of their income on them.

Why governments tax

1. **To raise revenue** to pay for public spending. Revenue is largest when a tax is cheap to collect, hard to avoid and falls on goods with **price-inelastic** demand (fuel, tobacco), where sales fall little when the tax raises the price.

2. **To redistribute income:** progressive taxes take a bigger share from high incomes, which can pay for benefits for low incomes.
3. **To correct market failure:** taxes on demerit goods and on goods with negative externalities (cigarettes, carbon emissions) raise their price and cut consumption.
4. **To manage aggregate demand:** raising taxes cuts spending to control inflation; cutting them boosts spending in a recession.
5. **To protect domestic industry** and influence imports: tariffs make imports dearer.

Government spending: capital and current

- **Capital (investment) spending** buys assets that last for years and add to the economy's productive capacity: new roads, schools, hospitals, computers for classrooms, power stations.
- **Current spending** is day-to-day spending used up within the year: wages of teachers, nurses and soldiers, medicines, rent for buildings, grants for students, and **transfer payments** such as pensions and unemployment benefit.

Transfer payments move income from taxpayers to others without anything being produced, so they are not part of G in aggregate demand; they work by raising the disposable income, and so the consumption, of the people who receive them.

Why governments spend

- to provide **public goods** that the market would not supply (defence, street lighting, flood defences);
- to provide or subsidise **merit goods** that would be under-consumed (education, health care);
- to build **infrastructure** that firms rely on (transport, power, communications);
- to **redistribute income** through benefits and pensions;
- to **manage aggregate demand**: more spending in a recession creates jobs;
- to **support industries** (subsidies) and correct market failure.

Expansionary and contractionary fiscal policy

	Expansionary (loose)	Contractionary (tight, deflationary)
Spending and tax	Raise government spending and/or cut taxes	Cut government spending and/or raise taxes
Budget	Bigger deficit or smaller surplus	Smaller deficit or bigger surplus
Aggregate demand	Rises (AD shifts right)	Falls (AD shifts left)
Used for	Recession, high unemployment, deflation	High demand-pull inflation, an overheating economy

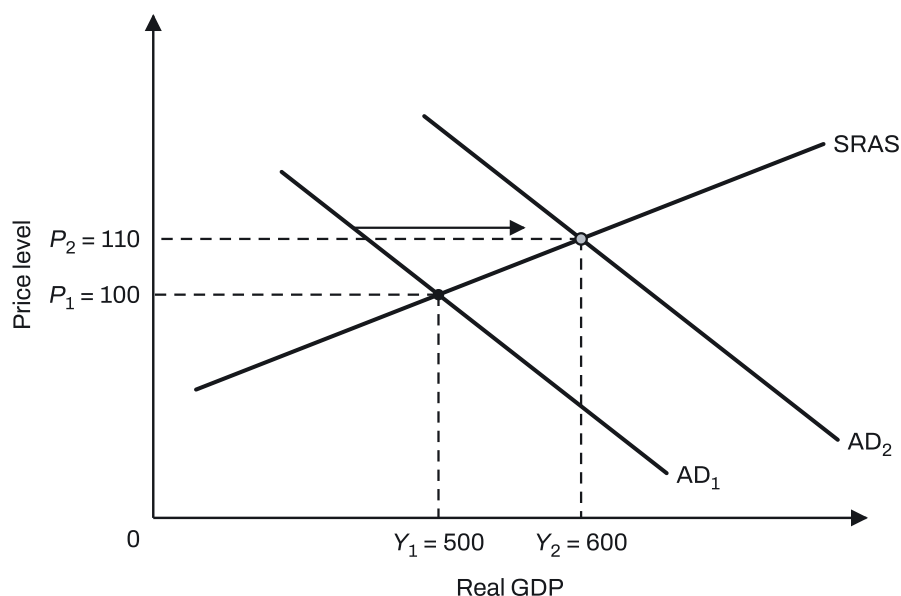
So "a move from a balanced budget to a deficit" or "a smaller budget surplus" is expansionary; "a bigger surplus" or "a smaller deficit" is contractionary.

In the circular flow, government spending is an **injection** and taxation is a **leakage**. Spending more raises injections; cutting taxes reduces leakages. If part of new government spending goes on **imports** (say half of a defence order is foreign aircraft), injections rise by the full amount but leakages (imports) also rise by half of it, so the boost to the domestic economy is smaller.

Fiscal policy on an AD/AS diagram

Aggregate demand is $AD = C + I + G + (X - M)$. Fiscal policy changes it in two ways:

- **Government spending** (G) is part of AD directly.
- **Taxes** change disposable income and profits: a cut in income tax leaves households more to spend, so C rises; a cut in corporation tax leaves firms more profit to invest, so I rises.

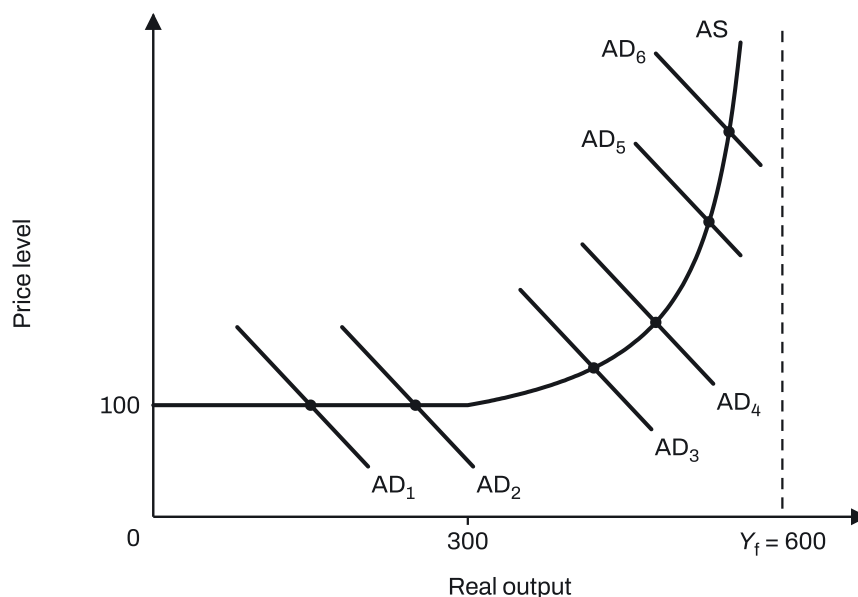


Expansionary fiscal policy. The government raises spending or cuts taxes, so AD shifts right from AD_1 to AD_2 . Firms sell more, so they produce more: **real output and national income rise** (500 to 600). To produce more they hire more workers, so **employment rises** and unemployment falls. With more demand and rising costs as output grows, the **price level rises** too (100 to 110).

Contractionary fiscal policy does the reverse: AD shifts left from AD_2 to AD_1 , so the price level falls (in practice, inflation slows), but real output falls and unemployment rises.

How much output and how much inflation?

The same change in fiscal policy has very different effects depending on how much **spare capacity** the economy has.



- **Deep recession, lots of spare capacity** (AD_1 to AD_2): idle workers and machines can be used without raising costs. Output rises and the price level stays at 100: expansionary policy is at its best, with no inflationary pressure.
- **Nearing capacity** (AD_3 to AD_4): output rises by less, and the price level rises too. Firms compete for scarcer workers and materials, so costs rise.
- **Close to full employment** (AD_5 to AD_6): output can hardly rise as it nears Y_f , so most of the extra demand pushes up prices. Expansionary policy here mostly causes inflation, so contractionary policy is the one that is likely to be used, and it costs little output.

The same picture explains contractionary policy: cutting AD when it meets the steep part of AS lowers prices a lot for a small loss of output; cutting AD on the flat part only cuts output and jobs, with no effect on prices.

Fiscal policy can shift aggregate supply too

Some fiscal measures also raise the economy's **productive capacity**, shifting AS to the right in the longer run:

- capital spending on **infrastructure** and **education and training**;
- lower **income tax** (a higher tax-free allowance or a lower marginal rate), which raises the reward for working and so the incentive to work;
- lower taxes on firms' **profits or property**, which cut costs and encourage investment.

A cut in income tax therefore raises **both** AD (more disposable income) and AS (more incentive to work). A lower tax on firms' costs shifts AS right, so real output rises and the price level falls. Spending on infrastructure raises AD straight away (the building work) and AS later (when the road is open).

Fiscal policy and the distribution of income

Fiscal policy is the government's main tool for making incomes more equal:

- **Narrows inequality:** more progressive income tax (higher top rate, higher tax-free allowance), lower indirect taxes or more exempt goods, more transfer payments, subsidies on food and public transport, free health care and education.
- **Widens inequality:** higher indirect taxes, removing subsidies, a lower tax-free allowance, a lower top rate of income tax, lower inheritance tax.

Limits of fiscal policy

These are the evaluation points examiners reward:

- **Time lags.** It takes time to agree a budget, start projects and for spending to change.
- **People may not spend a tax cut.** People who earn too little to pay income tax gain nothing, and households worried about their jobs may save the extra income.
- **Leakages into imports.** Some extra spending goes on foreign goods, so less of it raises domestic output.
- **The deficit and the national debt.** Expansionary policy must be financed by borrowing, with the interest costs and possible crowding out described above.
- **Political difficulty.** Tax rises and spending cuts are unpopular, so contractionary policy is often delayed.
- **The cause of the problem.** Demand-side fiscal policy suits demand-pull inflation and cyclical (demand-deficient) unemployment. It does little for cost-push inflation or structural unemployment, where supply-side policy is the better tool.

Key facts and formulas

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

Formula	Status
Budget deficit = government spending – government revenue (when spending is larger)	Learn it
Budget surplus = government revenue – government spending (when revenue is larger)	Learn it
Deficit or debt as % of GDP = $\frac{\text{deficit (or debt)}}{\text{GDP}} \times 100$	Learn it
National debt at end of year = debt at start + deficit (or – surplus used to repay)	Learn it
$\text{art} = \frac{\text{total tax paid}}{\text{total income}} \times 100$	Learn it
$\text{mrt} = \frac{\text{change in tax paid}}{\text{change in income}} \times 100$	Learn it
Progressive: art rises with income (mrt > art); proportional: art constant (mrt = art); regressive: art falls (mrt < art)	Learn it

Formula	Status
$AD = C + I + G + (X - M)$	Learn it
Expansionary: G up and/or taxes down, AD right; contractionary: G down and/or taxes up, AD left	Learn it

How to do it

We tagged 81 questions for this topic (2021–2025): 64 Paper 1 multiple choice and 17 Paper 2 essays or data responses. For Paper 2 we count only the parts about fiscal policy; 6 of those questions have two parts of different types, so the counts add up to 87.

Question type	Questions
Multiple choice: classify a tax as progressive, regressive or proportional	13
Multiple choice: show a fiscal change on AD/AS or the circular flow	11
Multiple choice: expansionary or contractionary; fiscal, monetary or supply-side	10
Multiple choice: budget balance, deficit, surplus and national debt	10
12-mark essay: assess fiscal policy against other policies for an aim	9
Multiple choice: pick the fiscal measure for an objective	9
Multiple choice: types of tax and spending; average and marginal tax rates	6
Multiple choice: taxes and benefits to change the distribution of income	5
Essay or data: budget surplus, deficit or balance and which is better	5
Essay or data: types of and reasons for taxes or spending	5
Essay or data: expansionary and contractionary fiscal policy with AD/AS	4

1. Multiple choice: classify a tax as progressive, regressive or proportional (13 questions)

- Work out the proportion** of income paid at each income level: $\text{tax} \div \text{income} \times 100$. Never judge by the amount.
- Compare**: rising proportion = progressive; same = proportional; falling = regressive.
- Check the trap options**: "high earners pay more tax" is not the definition; "all taxpayers pay the same proportion" is proportional.

For example, if incomes of \$12 000, \$40 000 and \$120 000 pay \$1200, \$6000 and \$36 000, the shares are 10%, 15% and 30%: progressive.

Variations you will meet:

- **A tax-free allowance and one flat rate** is progressive, because the rate rises as the allowance becomes a smaller part of income (9708/12/M/J/25 Q23).
- **Bands with one rate each.** "5% on the first \$10 000 of profit, 10% on profit above \$10 000" is progressive overall, but **within each band** the rate is fixed, so each band on its own is proportional (9708/14/M/J/22 Q18). Read the column headings to see which one is asked.
- **A graph of income after tax against income before tax.** With no tax the line is the 45° line. A progressive tax makes the line bend further below the 45° line as income rises; the most progressive change takes the largest share from the highest incomes.
- **"Which is most likely to be regressive?"** Indirect taxes, specific taxes on cigarettes or fuel, and sales tax on food. Corporation tax, wealth tax and benefits are not.
- **"Which combination of tax changes is regressive?"** Look for changes that hit the poor hardest: a lower tax-free allowance, higher sales tax on necessities, a lower top rate or inheritance tax for the rich.
- **A table of tax paid by income groups** may ask which statement it supports: check percentages, not amounts.

2. Multiple choice: show a fiscal change on AD/AS or the circular flow (11 questions)

1. **Which curve moves?** Changes in G or in taxes on income and spending shift **AD**. Measures that change firms' costs or the incentive to work (taxes on firms' property, income tax incentives, infrastructure once built) shift **AS**. Some shift both.
2. **Which way?** Expansionary moves right, contractionary left.
3. **Where is the new equilibrium?** Read it off the diagram: on the flat part of AS only output changes; on the steep or vertical part mostly prices change.

Variations you will meet:

- **Income tax rise:** AD shifts left; the price level and real output fall.
- **Tax-free allowance raised and marginal rate cut:** AD and AS both increase.
- **Lower tax on firms' land and buildings:** AS shifts right, so the price level falls and real output rises.
- **Spending on infrastructure, short-term effect:** AD shifts right (AS shifts right only later).
- **"From which point would a move to a budget deficit raise employment most without inflation?"** The point on the flat part of AS, where there is most spare capacity.
- **"Which starting position makes a spending cut least effective at reducing inflation?"** The AD curve that meets the **flat** part of AS: there the cut lowers output, not prices.
- **Circular flow:** extra government spending is an injection; if part of it is spent on imports, leakages rise too, but by less, so the rise in injections is greater than the rise in leakages (9708/13/O/N/25 Q19).

3. Multiple choice: expansionary or contractionary; fiscal, monetary or supply-side (10 questions)

1. **Sort each measure:** spending, taxes, the budget balance and government borrowing are **fiscal**; interest rates, the money supply, bank lending rules and the exchange rate are **monetary**; training, deregulation and other capacity-raising measures are **supply-side**.
2. **Give it a direction:** more spending, lower taxes, a bigger deficit or smaller surplus are expansionary; the opposite is contractionary. For monetary policy, lower interest rates, more money and a devaluation are expansionary.
3. **Match every column.** One wrong column rules an option out.

Variations you will meet:

- **"Which is an example of expansionary fiscal policy?"** More spending on public goods, a cut in income tax for all earners, a decrease in the budget surplus. Not a rise in income tax, not private-sector investment, not the money supply.
- **"Which is classified as fiscal policy?"** Managing the level of government debt is fiscal. Fixing the currency, credit rules for banks and guidance to industry are not.
- **A bundle of changes.** Cutting spending on workplace training is contractionary **supply-side** policy; raising indirect taxes is contractionary **fiscal** policy; a lower interest rate (even on government debt) is expansionary **monetary** policy.
- **"Which combination would certainly be expansionary?"** Every lever must point one way: lower taxes, more government spending and more money. Any mixed row is not "certainly" expansionary.
- **"Which actions would be most likely to increase AD?"** Every measure in the option must raise AD, for example a cut in income tax together with higher subsidies to producers. Reject any option that pairs a tax cut with something that reduces AD, such as higher interest rates.

4. Multiple choice: budget balance, deficit, surplus and national debt (10 questions)

1. **For each year, compare spending with revenue:** spending > revenue is a deficit; revenue > spending a surplus; equal is balanced.
2. **For the national debt,** add each deficit and take off any surplus used to repay.
3. **Reject the distractors** that mix up the budget with the balance of payments, or claim a deficit proves the economy is "in decline" or that a surplus means spending is "too much".

For example, spending of 120, 140 and 160 against revenue of 130, 140 and 150 is a surplus of 10, then a balanced budget, then a deficit of 10: a surplus has become a deficit, and the debt is rising by the end.

Variations you will meet:

- **"A government has a balanced budget and raises spending by 10%. Which rise in revenue gives a surplus?"** Revenue must rise by **more** than 10% ([9708/12/F/M/24 Q20](#)).
- **"What is the national debt?"** The accumulated borrowing of the government, not one year's deficit and not the interest paid.

- **"What does a deficit imply?"** That the national debt is increasing.
- **What expansionary policy does to the budget:** raises the deficit or cuts the surplus; it does not raise a surplus.
- **Extra borrowing from the banks** can push up interest rates (crowding out); it does not reduce the debt.
- **Cutting public investment** to "improve the government's financial position" lowers the deficit now, but at the cost of future capacity.

5. 12-mark essay: assess fiscal policy against other policies for an aim (9 questions)

The (b) part of a Paper 2 essay, such as "Assess the extent to which fiscal policy would be the best way to reduce a high rate of inflation". Marked by levels: 8 marks for knowledge and analysis, 4 for evaluation.

1. **Define** fiscal policy and the problem (inflation, unemployment, slow growth, a current account deficit).
2. **Explain how fiscal policy works on this problem** with a full chain and an AD/AS diagram: higher income tax → less disposable income → less consumption → AD shifts left → the price level rises less (slower inflation). Give its strengths.
3. **Explain its limits**, in the question's context, from "Limits of fiscal policy".
4. **Explain at least one alternative** (monetary or supply-side policy) the same way, with its strengths and limits. Without an alternative, "the best way" cannot be judged and the answer is one-sided.
5. **Judge:** which is best **for this problem**, and what it depends on (the cause, the time scale, spare capacity, the size of the debt). End with a direct answer.

Aim	Fiscal policy	Alternatives
Demand-pull inflation	Higher taxes, less spending: AD left; fairly direct, but costs growth and jobs, is unpopular and slow to agree	Higher interest rates (monetary): quicker to change, but slow to work and hits investment
Cost-push inflation	Cutting AD lowers prices only by deepening the fall in output; weak	Supply-side policy lowers costs and shifts AS right, but takes years; a higher exchange rate makes imports cheaper
Cyclical unemployment (recession)	More spending, lower taxes: AD right, firms hire; strong when there is spare capacity, but raises the deficit and debt	Lower interest rates: cheap but weak if confidence is low
Structural unemployment, low long-run growth	Spending on training and infrastructure works only through AS, slowly	Supply-side policy is the main tool
Current account deficit	Higher taxes cut spending on imports, but also cut domestic output and jobs	A lower exchange rate, supply-side policy to make exports competitive

Fiscal policy can also be asked about **raising aggregate supply** (spending on education, training and infrastructure, tax incentives to work and invest): then keep the analysis on AS, not AD.

6. Multiple choice: pick the fiscal measure for an objective (9 questions)

1. **Name the problem:** inflation needs AD to fall; deflation, unemployment and slow growth need AD to rise.
2. **Pick the measure that moves AD that way,** and check it does not have a side effect that defeats it.

Variations you will meet:

- **Deflation:** cut indirect taxes, raise transfer payments, cut the budget surplus. Raising income tax or interest rates, or revaluing the currency, would make it worse.
- **Inflation:** raise direct taxes, cut spending, reduce the budget deficit. Lower interest rates or a bigger deficit would not help.
- **"Effects of a higher direct tax on the three objectives":** low inflation becomes **more** likely; economic growth and low unemployment become **less** likely.
- **"A cut in direct tax on earnings: positive effect on growth in the short run?"** More disposable income raises the consumption of **domestically produced** goods. Extra imports or extra saving do not raise domestic output.
- **Cyclical unemployment** falls with expansionary fiscal policy.

7. Multiple choice: types of tax and spending; average and marginal tax rates (6 questions)

1. **art** at an income = total tax ÷ that income × 100.
2. **mrt** between two incomes = change in tax ÷ change in income × 100. Use the step that **ends** at the income asked about (the last extra dollars earned).
3. **Direct or indirect?** Taxes on income, profits and wealth are direct; taxes on goods and services are indirect. Sales of government assets are revenue but not a tax.
4. **Capital or current spending?** Lasting assets (computers, buildings) are capital; wages, rent, grants and benefits are current.

For example, a table showing \$6000 tax on \$40 000 and \$8000 on \$50 000: at \$50 000, $\text{art} = \frac{8000}{50\,000} \times 100 = 16\%$ and $\text{mrt} = \frac{2000}{10\,000} \times 100 = 20\%$.

Variations you will meet:

- **Total indirect tax revenue from a table:** add sales/goods and services tax, carbon tax, air passenger tax and other taxes on spending; leave out taxes on the self-employed, corporate taxes, capital gains tax and asset sales.
- **"What makes revenue from indirect taxes effective?"** Taxing goods with price-inelastic demand. Bartering and informal markets escape the tax.
- **A good tax should be cheap to collect** (economy), as well as fair, certain and convenient to pay.

8. Multiple choice: taxes and benefits to change the distribution of income (5 questions)

1. **Decide whether each change helps the poor more than the rich** (equalising) or the rich more (widening).
2. **Pick the option where every change works the same way** as the aim.

Variations you will meet:

- **More equal distribution:** a higher top rate of income tax plus a lower sales tax; a higher tax-free allowance; more exempt goods.
- **Less equal:** higher indirect taxes, an abolished subsidy, a lower income threshold for paying tax.
- **"Why introduce a progressive tax?"** To distribute disposable income more evenly.
- **"Reduce both inflation and inequality":** raise direct taxes (lowers AD and falls mainly on higher incomes), cut indirect taxes (lowers prices, helps the poor), raise subsidies on food and public transport. Check each column against **both** aims.
- **"Which policy is most effective for greater income equality?"** Fiscal policy.

9. Essay or data: budget surplus, deficit or balance and which is better (5 questions)

8-mark (a) part, such as "Explain the difference between a budget surplus and a budget deficit and consider whether a surplus is better":

1. **Knowledge (3):** define the government budget, a budget surplus and a budget deficit, one mark each.
2. **Analysis (3):** the benefits and limits of a surplus **and** of a deficit. Only one of them caps analysis at 2 with no evaluation marks.
 - Surplus, benefits: repays national debt, so lower interest payments; leaves room to borrow in a future recession; reduces AD when the economy is overheating, so controls inflation; builds lenders' confidence.
 - Surplus, limits: may mean underspending on public services and infrastructure, or high taxes; cuts AD, so in a recession it deepens unemployment.
 - Deficit, benefits: raises AD in a recession, so output and jobs rise; can pay for investment that raises future capacity and tax revenue.
 - Deficit, limits: adds to the national debt and interest payments; may raise interest rates and crowd out private investment; inflationary near full capacity; future taxes must rise.
3. **Evaluation (2):** neither is always better. It depends on the stage of the economic cycle (a deficit in a recession, a surplus in a boom), what the borrowing pays for, the size of the deficit relative to GDP and how it is financed. Finish with a conclusion.

12-mark version: "should a balanced budget always be a main objective?" Use the same points, plus the case for a balanced budget (no new debt, discipline on spending) against the case for flexibility (deficits in recessions, surpluses in booms). Conclude that "always" is too strong.

Data parts (1–2 marks): compare the budget balance in two years using economic terms, for example "in deficit in both years; the deficit increased". Copying the numbers is not enough, and "worsened" is a judgement, not a comparison. If the data shows a move from deficit to surplus, that is contractionary.

10. Essay or data: types of and reasons for taxes or spending (5 questions)

1. **Define each term with an example:** direct tax (income tax) vs indirect tax (sales tax); progressive vs regressive; mrt vs art with a worked number.
2. **Explain the difference:** who pays and how (direct taxes are paid by the earner on income or profits; indirect taxes are added to prices and passed on to buyers), and what happens to the art as income rises.
3. **Give the reasons** for the tax or spending: revenue, redistribution, correcting market failure, managing AD.
4. **Evaluate** the judgement asked, such as "is income tax fairer than sales tax?" or "should the government raise indirect taxes for more revenue?":
 - indirect taxes are harder to avoid, catch spending in the informal economy and tourists, and raise steady revenue if demand is price-inelastic; but they are regressive and push up the price level;
 - direct taxes are progressive and fairer by ability to pay, but can reduce the incentive to work and invest, and are evaded where many work informally or when incomes fall in a recession.
 - Conclude with what it depends on (the country's informal sector, the goods taxed, whether equality or revenue matters more).

Data-response 6-markers use the same plan in the country's context, for example whether collecting direct or indirect taxes better would raise more revenue, or whether the government or private firms should pay for infrastructure.

11. Essay or data: expansionary and contractionary fiscal policy with AD/AS (4 questions)

1. **Define** expansionary (or contractionary) fiscal policy: the tax and spending changes and what they do to the budget.
2. **Draw** an AD/AS diagram (price level and real GDP axes, AD_1 , AD_2 , SRAS, both equilibria labelled) and **explain** the chain to output, employment and the price level.
3. **Assess** "will it always increase AD?" or "does it always benefit an economy?":
 - not always: tax cuts may be saved, people who pay no tax gain nothing, confidence may be low, extra spending may go on imports;
 - benefits (growth, jobs) are largest with spare capacity; near full employment it mostly raises prices;
 - costs: a bigger deficit and national debt, interest payments, possible crowding out.
4. **Conclude:** the effect depends on the size of the change, the spare capacity in the economy and how it is financed.

Data parts: "Explain why this package is expansionary fiscal policy" needs the term **and** a reference to the data (the spending or tax cuts it lists).

Worked examples

Example 1

A country's income tax has a tax-free allowance of \$12 000. Income from \$12 001 to \$50 000 is taxed at 20%, and income above \$50 000 is taxed at 40%.

What are the average rate of taxation and the marginal rate of taxation for a person earning \$80 000?

	average rate (%)	marginal rate (%)
A	24.5	40
B	24.5	20
C	40	24.5
D	30	40

[1]

Tax = $20\% \times (50\,000 - 12\,000) + 40\% \times (80\,000 - 50\,000) = 7600 + 12\,000 = 19\,600$, so the tax is \$19 600.

art = $\frac{19\,600}{80\,000} \times 100 = 24.5\%$. Any extra dollar this person earns is taxed at 40%, so mrt = 40%. The answer is **A. (1)**

B uses the lower band's rate, C swaps the two, and D averages the two rates, which ignores the allowance. Because the mrt (40%) is above the art (24.5%), the tax is progressive; at \$30 000 the art is only $\frac{3600}{30\,000} \times 100 = 12\%$.

Example 2

The table shows a government's spending and revenue over three years. At the start of year 1 its national debt was \$800bn. Any surplus is used to repay debt.

	year 1	year 2	year 3
government spending (\$bn)	250	260	270
government revenue (\$bn)	230	260	285

What is the national debt at the end of year 3?

A \$765bn **B** \$785bn **C** \$805bn **D** \$835bn

[1]

Year 1: deficit of $250 - 230 = 20$, so the debt rises to 820. Year 2: balanced, debt unchanged. Year 3: surplus of $285 - 270 = 15$, used to repay debt, so it falls to 805. The answer is **C. (1)**

D treats the surplus as a deficit; B ignores year 1's deficit; A subtracts both.

Example 3

Explain the difference between capital spending and current spending by a government, and consider whether a government that must reduce its budget deficit should cut capital spending rather than current spending. [8]

Government spending is what the state spends on goods, services and payments to people, set out each year in the government budget (**1, AO1**). Capital (investment) spending buys assets that last for many years and add to the economy's productive capacity, such as a new railway line, school buildings or hospital equipment (**1, AO1**). Current spending is day-to-day spending that is used up within the year, such as the wages of teachers and nurses, medicines, and transfer payments like pensions (**1, AO1**).

Cutting capital spending is often the easiest way to reduce a deficit quickly: a project can be postponed without dismissing anyone, so public services carry on as before and the political cost is low (**1, AO2**). But the economy then loses capacity it would have gained: without the new railway, firms' transport costs stay high and the long-run aggregate supply curve shifts right by less, so future growth and future tax revenue are lower, which can make the deficit harder to close later (**1, AO2**). Cutting current spending, such as public-sector pay or benefits, reduces disposable income at once, so consumption and AD fall, raising unemployment and cutting tax revenue, and it can harm health and education services that people rely on (**1, AO2**).

Which is better depends on what is cut: delaying low-value projects costs little, while cutting maintenance or projects with high returns stores up bigger costs, and current spending can sometimes be cut through efficiency gains with no loss of service (**1, AO3**). On balance, a government should protect capital spending that raises productive capacity and look first for savings in current spending, because cutting investment trades a small saving now for slower growth and a weaker budget position in future (**1, AO3, a justified conclusion**).

(Knowledge 3, analysis 3, evaluation 2: **8/8**.)

Example 4

Assess whether expansionary fiscal policy is the best way to reduce unemployment in a recession. [12]

Model answer (outline of each paragraph):

- 1. Terms.** Expansionary fiscal policy is higher government spending and/or lower taxes, which increases the budget deficit. In a recession, falling AD causes cyclical (demand-deficient) unemployment. (*Accurate knowledge.*)
- 2. How fiscal policy reduces unemployment.** More spending on, say, road building is an injection that raises G directly; a cut in income tax raises disposable income and so C . AD shifts right (diagram 1, AD_1 to AD_2), firms sell more, raise output from 500 to 600 and hire more workers. Because a recession leaves much spare capacity, the price level rises little (diagram 2, AD_1 to AD_2). (*Developed chain with a labelled diagram.*)

3. **Its limits.** Time lags in agreeing and starting projects; tax cuts may be saved if households fear losing their jobs, and the poorest pay little tax anyway; some spending leaks into imports. The extra deficit adds to the national debt and interest payments, and borrowing may raise interest rates and crowd out private investment. It does nothing for structural unemployment. (*Analysis of the other side: Level 3 needs both.*)
4. **The alternatives.** Monetary policy: lower interest rates make borrowing cheaper, so consumption and investment rise; it adds no debt and is quick to change, but in a deep recession with low confidence, firms may not borrow even at low rates. Supply-side policy (training, help to move to new jobs) suits structural unemployment, but is slow and does not raise demand. (*At least one alternative analysed.*)
5. **Evaluation.** Fiscal policy is strongest when the recession is deep, interest rates are already very low and the government's debt is manageable, because it puts spending straight into the economy. It is weaker when the debt is already high, when unemployment is structural, or when the economy is close to capacity. (*Weighs the conditions.*)
6. **Conclusion.** For cyclical unemployment in a deep recession, expansionary fiscal policy is likely to be the best single tool, ideally targeted at capital spending that also raises AS later and supported by lower interest rates; for structural unemployment, supply-side policy is better. (*Justified conclusion: full evaluation marks.*)

Common mistakes

- **Mixing up the budget with the balance of payments.** The budget balance compares the government's spending and revenue; it has nothing to do with exports and imports, and governments do not get revenue from exports. Mark schemes warn that a budget question is not about the current account.
- **Judging a tax by the amount paid.** "The rich pay more" does not make a tax progressive; only a rising **proportion** does. In one question, fewer than a third of candidates saw that a fixed rate within each band is proportional.
- **Confusing direct and indirect taxes.** A cut in income tax raises disposable income; a cut in sales tax lowers prices. Examiners gave no credit to answers that treated one as the other.
- **Asserting instead of explaining.** "Higher taxes reduce AD, so inflation falls" earns little. Show the chain through disposable income, consumption, AD and AS, with a diagram.
- **Poorly labelled diagrams.** Label the axes price level and real GDP (or real output), the curves AD_1 , AD_2 and AS, and both equilibria.
- **Ignoring the cause.** Fiscal policy that cuts AD suits demand-pull inflation; examiners reward noticing it does little for cost-push inflation, and that deficits do little for structural unemployment.
- **Answering a different question.** When a question asks how fiscal policy raises **aggregate supply**, an answer all about AD gains little; when it asks you to compare two named policies, a third is irrelevant. When it asks whether fiscal policy is "the best" way, an alternative is essential.
- **No evaluation.** Many answers explain fiscal policy well but never judge it, losing the 4 evaluation marks of a 12-mark part.
- **Copying data.** In data questions, use the right table, describe the change in economic terms ("the deficit increased", "moved from deficit to surplus") and refer to the figures.

- **Not defining key terms.** Define budget deficit, national debt or fiscal policy at the start, even if it seems obvious.

How to get the marks

- **Multiple choice:** for tax questions, write the percentage paid at each income in the margin; for policy questions, write "fiscal / monetary / supply-side" and "exp / con" beside each measure; for budget tables, write the balance for each year.
- **Define first.** Most knowledge (AO1) marks are for precise definitions: government budget, deficit, surplus, national debt, progressive, regressive, mrt, art.
- **"Explain"** means a developed chain: measure $\rightarrow$ disposable income or spending $\rightarrow C, I$ or $G \rightarrow$ AD (or AS) $\rightarrow$ output, employment and the price level. Each link is a step towards the analysis (AO2) marks.
- **Diagrams:** an accurate, labelled AD/AS diagram earns knowledge marks and strengthens analysis. Show the shift and both equilibria.
- **"Consider", "assess", "discuss", "to what extent":** both sides, then a judgement that says what the answer **depends on**, then a final sentence that answers the question. A one-sided answer gets no evaluation marks.
- **8-mark (a) parts** are point-marked: up to 3 knowledge, 3 analysis, 2 evaluation (one kept for a justified conclusion). Three definitions, three developed points covering both sides, and a judgement with a conclusion reach 8.
- **12-mark (b) parts** are level-marked: 8 for knowledge and analysis, 4 for evaluation. Level 3 needs balanced, accurate analysis in the question's context; "the best way" questions need at least one alternative policy.
- **Data responses:** use economic terms, quote the figures and answer only the command word: "compare" needs a similarity and a difference, not an explanation.

Quick check

1. A person earning \$40 000 pays \$6000 in income tax, and a person earning \$60 000 pays \$10 000. Find the average rate of tax for each and the marginal rate between the two incomes. Is the tax progressive, proportional or regressive?
2. A government's revenue is \$480bn and its spending is \$520bn. GDP is \$2000bn, and the national debt at the start of the year is \$900bn. Find the budget balance, as an amount and as a percentage of GDP, and the national debt at the end of the year.
3. Classify each as capital or current government spending: (a) nurses' wages; (b) a new hospital; (c) unemployment benefit.
4. An economy has high unemployment and a lot of spare capacity. The government cuts income tax. Explain the likely effect on aggregate demand, real output, employment, the price level and the budget balance.

5. A 10% sales tax is charged on all goods. A household earning \$10 000 spends \$9000 on goods, and a household earning \$100 000 spends \$30 000. Use these figures to explain why the sales tax is regressive.
- [2]**

Answers

1. art: $\frac{6000}{40\,000} \times 100 = 15\%$ and $\frac{10\,000}{60\,000} \times 100 = 16.67\%$. mrt: $\frac{10\,000 - 6000}{60\,000 - 40\,000} \times 100 = \frac{4000}{20\,000} \times 100 = 20\%$. The art rises with income (and mrt > art), so the tax is **progressive**.
2. Spending exceeds revenue by $520 - 480 = 40$, so \$40bn: a **budget deficit** of \$40bn, which is $\frac{40}{2000} \times 100 = 2\%$ of GDP. The deficit is borrowed, so the national debt rises to $900 + 40 = 940$, that is \$940bn.
3. (a) current; (b) capital; (c) current (a transfer payment).
4. Lower income tax raises disposable income, so consumption rises and AD shifts right. With a lot of spare capacity, firms can raise output without higher costs, so real output and employment rise and the price level rises little or not at all (the flat part of AS in diagram 2). Tax revenue falls, so the budget moves towards deficit (a bigger deficit or a smaller surplus).
5. The low-income household pays \$900 in tax, 9% of its income, but the high-income household pays \$3000, only 3% of its income (1). The proportion of income paid falls as income rises, which is what makes a tax regressive, because poorer households spend a larger share of their income (1).

Past questions to try

- **9708/11/O/N/23 Q15**: average and marginal rates of tax from a table.
- **9708/12/M/J/25 Q22**: what a rise in direct tax does to the three objectives.
- **9708/13/O/N/22 Q22**: where on the AS curve a budget deficit raises employment without inflation.
- **9708/21/O/N/23 Q4**: reasons for taxation, then whether a government should always balance its budget.