

Cambridge IGCSE · Business Studies 0450 · Notes

Economic issues

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Read first: **Business finance: needs and sources**

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What you need to know

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

1. **Name and describe the four stages of the business cycle:** growth, boom, recession and slump.
2. **Explain how a business is affected when employment, inflation and GDP change** as the economy moves through the cycle.
3. **Identify what a government is trying to achieve in the economy**, such as increasing GDP, keeping unemployment low, keeping prices stable and improving the balance of payments.
4. **Explain the effect on a business when the government changes taxes or its own spending.**
5. **Explain the effect on a business when interest rates change.**
6. **Explain how a business might respond** to each of these changes.

The effects of exchange rates, import tariffs and quotas belong to the topic on the international economy, and legal controls to the topic on environmental and ethical issues. They can turn up next to this topic in a 12-mark question, but the knowledge is taught in those notes.

Understand it

Why the economy matters to a business

Every business works inside an economy it cannot control: jobs, incomes, taxes and interest rates all change what customers spend and what the business pays. These are **external influences**, so the business has to predict them and react.

Most exam questions on this topic give you one change (a recession, higher interest rates, a tax rise) and ask how it affects a named business. Nearly every effect travels along one of two routes:

- **The demand route:** the change alters how much customers can or want to spend, so the business's **sales and revenue** change.
- **The cost route:** the change alters what the business has to pay (wages, materials, interest, tax), so its **costs, cash outflows and profit** change.

Keep these two routes in mind; they turn a list of facts into answers that explain.

Measuring the economy

- **Gross Domestic Product (GDP)** is the total value of all the goods and services produced in a country over a period of time, usually a year. **Economic growth** is an increase in GDP over time: the economy is producing more, so incomes and spending are usually rising.
- **Inflation** is a rise in the general level of prices of goods and services in an economy over time. "General level" matters: one product getting dearer is not inflation; most prices rising together is. The **rate of inflation** is the percentage rise in average prices over a year.
- **Unemployment** is when people who are able and willing to work cannot find a job. The **unemployment rate** is the percentage of the workforce in that position. **Employment** is the opposite: the number of people in work.

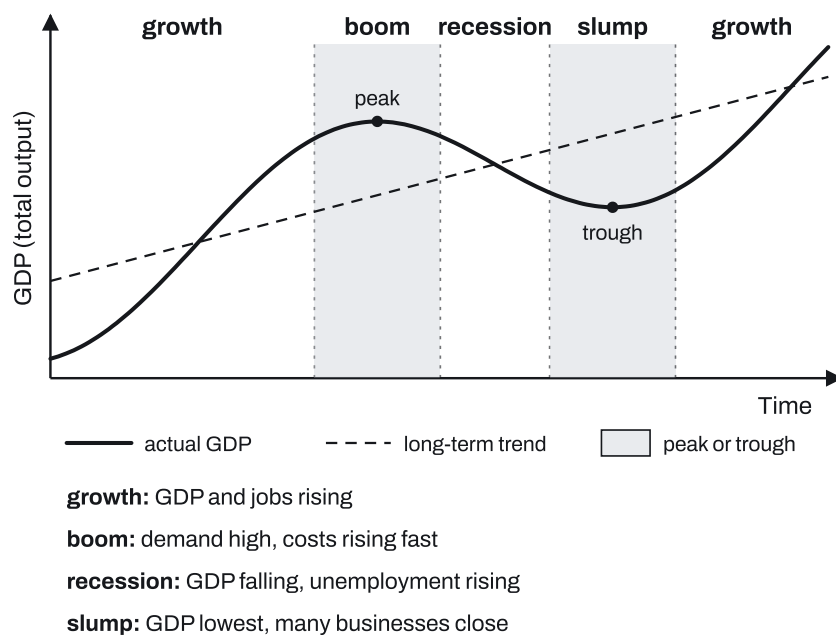
A percentage change works the same way for all of them:

$$\text{percentage change} = \frac{\text{new value} - \text{old value}}{\text{old value}} \times 100$$

If a country's GDP rises from \$400 billion to \$412 billion, growth is $\frac{412-400}{400} \times 100 = 3$, so **3%**. If a typical basket of shopping cost \$250 last year and costs \$260 now, inflation is $\frac{260-250}{250} \times 100 = 4$, so **4%**. A worker whose pay rose by 3% in that year can actually buy less than before, because prices rose faster than pay: their **real income** has fallen.

The business cycle

GDP does not rise smoothly. Over a period of years it speeds up, slows down and sometimes falls, then recovers. This pattern of ups and downs around a long-term upward trend is the **business cycle** (or trade cycle). It has four stages.



Growth. GDP is rising. Businesses sell more, so they take on staff and unemployment falls. Incomes rise, so customers spend more, and confidence grows, so businesses invest in new equipment and expand.

Boom. GDP is at its highest, near the peak. Demand is so strong that many businesses are working at full capacity. Because so many firms want workers, skilled staff are scarce, so wages rise; materials are in demand, so their prices rise; property is in demand, so rents rise. **Inflation tends to be high.** Sales and profits are usually high, but costs are climbing fast, and the government may raise interest rates or taxes to cool the economy down.

Recession. GDP is falling. Economists often call it a recession when GDP falls for six months (two quarters) in a row. Customers spend less, so businesses sell less and cut output; some cut jobs, so unemployment rises, so incomes fall further and spending falls again. Business confidence and investment fall, and banks become more careful about lending. **Inflation is usually low or falling,** because demand is weak: prices do not shoot up in a recession.

Slump. GDP is at its lowest, the trough. Unemployment is high, spending is low, and many businesses have closed. Prices may even fall. Eventually spending picks up and the economy moves back into growth.

Two other names you may meet: a **downturn** is another word for the move into recession, and a **depression** is a very deep, long slump.

Do not confuse the business cycle with the **product life cycle** (introduction, growth, maturity, decline), which follows the sales of one product. The business cycle follows the whole economy. "Growth" appears in both, so read the question carefully.

How each stage affects a business

The same stage can be good for one business and bad for another. The table sums up the usual effects.

Stage	Demand route (sales and revenue)	Cost route and other effects
Growth / boom	More customers with more to spend, so higher sales; can raise prices; may expand	Harder to recruit; workers ask for higher pay; materials and rents cost more; more competitors start up; capacity may run out
Recession / slump	Fewer sales, especially of luxuries and expensive items; may have to cut prices; low-priced products may sell more as customers trade down	Easier to recruit because more people want jobs; workers less likely to push for pay rises; confidence low, so less investment; banks lend less; cash-flow problems; customers pay late; some businesses fail, which can leave fewer competitors

Necessities and luxuries. When incomes fall, people keep buying what they need (basic food, medicine, fuel) and cut what they can do without (holidays, jewellery, eating out, new cars). So a recession hits a luxury business much harder than a supermarket. A business selling cheap alternatives, such as a discount store or a second-hand shop, may even gain customers.

How businesses respond to the cycle

In a **recession or slump** a business may:

- **cut costs**: reduce overtime, make some workers redundant, find cheaper suppliers, move to smaller premises;
- **cut prices or launch a cheaper range**, to keep customers who have less to spend;
- **delay expansion and investment** until sales recover;
- **make survival the main objective** for a while, instead of growth or profit;
- **look for customers in other countries** whose economies are doing better, so it depends less on a weak home market;
- **take advantage of the cheaper, larger pool of workers** to recruit skilled staff it could not find before.

In **growth or a boom** a business may:

- **raise prices** while demand is strong;
- **expand capacity**: hire more staff, buy machinery, open new branches;
- **offer better pay or training** to recruit and keep workers when labour is scarce;
- **build up cash** for the next downturn rather than borrowing heavily at the top of the cycle.

What the government is aiming for

A government wants the economy to do well, because that keeps people in work and gives it tax revenue to spend on schools, hospitals and roads. Its main **economic objectives** are:

- **Economic growth**: increasing GDP, so living standards rise.
- **Low unemployment**: more people in work, so incomes are higher, less is spent on benefits for people without jobs, and more tax comes in.
- **Low and stable inflation**: prices rising slowly and predictably, so people and businesses can plan and money keeps its value.
- **A healthy balance of payments**: the money coming into the country from exports roughly matching the money going out on imports.

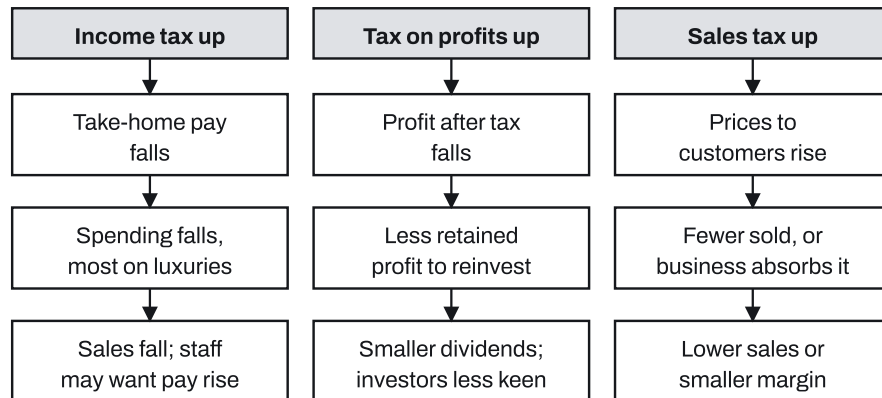
These are the **government's** aims for the **country**. They are not the objectives of a business, and they are not what the government wants from one particular business.

The government has three main tools to steer the economy: **taxes, government spending** and **interest rates**. In many countries the central bank sets interest rates, but you can treat all three as government control over the economy.

- To **boost** a weak economy (a recession), it can **cut taxes, spend more and cut interest rates**, so people and businesses have more to spend.
- To **cool** an overheating economy (a boom with high inflation), it can **raise taxes, spend less and raise interest rates**, so spending slows and prices rise more slowly.

Changes in taxes

A tax is money that people and businesses must pay to the government. It is collected **for the government**, so a tax rise never brings money into the business. And it applies to **every** business of that kind, including competitors, so a tax rise does not by itself make one business's prices look high against its rivals'. Three kinds of tax matter most here.



*Income and sales tax work mainly through demand;
tax on profits works through what is left for the owners.*

Income tax (a tax on people's pay). A rise leaves people with less **disposable income** (take-home pay), so they spend less, so the business sells less. Luxuries suffer most; cheap everyday products may hardly change, and a low-priced brand might gain customers who trade down. Employees also take home less, so they may ask for a pay rise to make up for it, or feel less motivated. A **cut** in income tax works the other way.

Tax on profits (often called corporation tax). This is taken from the profit a business makes. A rise leaves less profit after tax, so there is less **retained profit** to put back into the business for new equipment or expansion, and less to pay the owners as **dividends**, so shareholders and new investors find the business less attractive. It does not change the price customers pay directly.

Sales tax (a tax on spending, such as VAT, or a specific tax like a tax per hotel night or per litre of fuel). It is added to the price. The business can **pass it on**, so customers pay more and may buy less, or **absorb it** by keeping its price the same, so it keeps less from each sale and its profit margin shrinks.

When a question just says "an increase in taxes" without naming the tax, pick effects that make sense for the business in the case: lower demand from customers, higher costs, less profit to reinvest, higher prices, or plans to grow put off.

How businesses respond to a tax rise: cut costs to protect the margin; offer cheaper products; delay expansion; find other finance if retained profit is lower.

Changes in government spending

When the government spends more, for example on new roads, schools or hospitals, the businesses that win the contracts (construction firms, their suppliers) get more orders. The workers they employ have more to spend, which helps shops and services too. Government grants and subsidies can also help start-ups. But

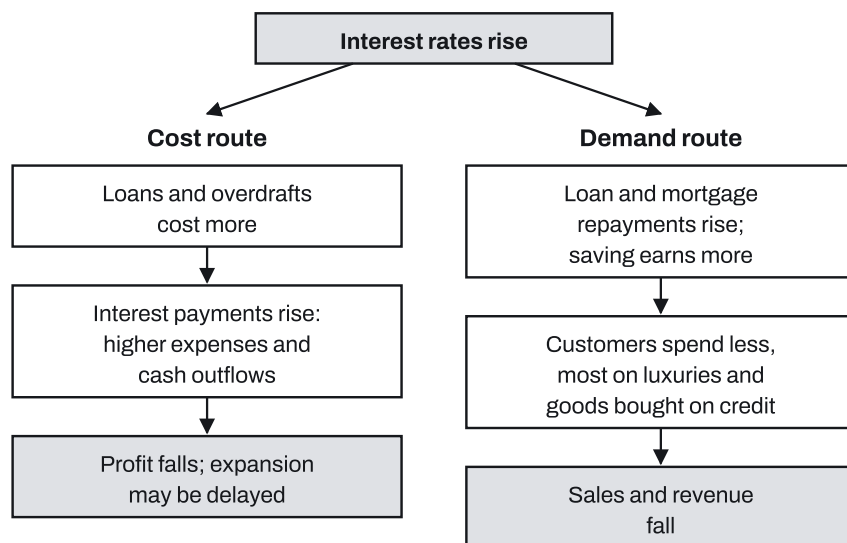
extra spending has to be paid for, often by **higher taxes** later, which raises costs or cuts demand; it can bring new competitors into a market; and it helps some industries far more than others. A **cut** in government spending means fewer contracts, fewer grants and, possibly, lower taxes.

Changes in interest rates

An **interest rate** is the price of borrowing money, as a percentage of the amount borrowed per year; it is also the reward for saving. Interest is **not** a tax and does not go to the government. When rates change, they affect **every** borrower and saver at once.

yearly interest = amount borrowed $\times$ interest rate

A business with a \$200 000 loan at 5% pays $200\,000 \times 0.05 = 10\,000$, so \$10 000 a year in interest. If the rate rises to 8%, it pays $200\,000 \times 0.08 = 16\,000$, so \$16 000: an extra \$6000 a year that comes straight off profit.



A fall in interest rates works the other way round.

A rise in interest rates affects a business in two ways.

- **Cost route.** A loan or overdraft at a variable rate costs more, so interest payments rise, so expenses and cash outflows rise and profit falls. New borrowing is dearer too, so plans to expand or buy equipment may be **delayed** or dropped. A business that already struggles with cash flow, and relies on an overdraft, is hit hardest.
- **Demand route.** Customers with mortgages and loans must pay more each month, so they have less left to spend. Saving pays more, so some people save rather than spend. Big items usually bought on credit (cars, furniture, houses, home improvements) lose the most sales. A small, cheap treat may hardly be affected.

How much it matters depends on: how much the business has borrowed (a business with no loans feels only the demand route), whether the product is a luxury or a necessity, whether it is bought on credit, and how big the change is (from 2% to 3% matters far less than from 2% to 6%).

A fall in interest rates works the other way: cheaper loans and overdrafts, more investment and expansion, and customers with more to spend.

How businesses respond to a rise: repay or reduce loans and overdrafts; use retained profit instead of borrowing; delay expansion; cut inventory or chase customers who owe money, so less overdraft is needed; offer cheaper products or credit deals to keep sales.

Changes in inflation and unemployment

Rising inflation. The business pays more for materials, fuel and energy, so costs rise. Workers find their pay buys less, so they push for pay rises, so wage costs rise. The business may have to raise its prices, so it may sell less, especially if competitors (including foreign ones whose prices are rising more slowly) do not. Customers' real incomes fall, so they cut back on luxuries. Prices keep changing, so it is harder to plan and to keep price lists up to date. Higher prices do **not** simply mean more profit: costs are rising too.

Rising unemployment (as in a recession). Fewer people have wages, so spending falls, so sales of most products fall. But it is easier to recruit, with more applicants to choose from, often including skilled people, and workers are less likely to demand pay rises when jobs are hard to find. Low-priced products may sell more.

Falling unemployment (as in growth). More people earn wages, so demand rises. But it is harder to find workers, and those available may lack the skills needed, so recruitment and training cost more, wages may have to rise, and it may be hard to increase output to meet the extra demand.

Key facts and formulas

This topic has no formula list in the exam. "Learn it" means you must remember it.

Fact or formula	Status
Business cycle stages: growth, boom, recession, slump	Learn it
GDP: the total value of goods and services produced in a country in a period of time (usually a year)	Learn it
Economic growth: an increase in a country's GDP over time	Learn it
Inflation: a rise in the general price level of goods and services over time	Learn it
Unemployment: people who are able and willing to work but cannot find a job	Learn it
Government economic objectives: economic growth, low unemployment, low and stable inflation, healthy balance of payments	Learn it

Fact or formula	Status
Percentage change = $\frac{\text{new value} - \text{old value}}{\text{old value}} \times 100$	Learn it
Yearly interest = amount borrowed $\times$ interest rate	Learn it
Interest rate rise: higher costs of borrowing (cost route) and lower customer spending (demand route)	Learn it
Income tax rise: less disposable income, so lower demand; tax on profits rise: less retained profit; sales tax rise: higher prices or smaller margins	Learn it

How to do it

We have tagged 38 questions on this topic (2021–2026), on Paper 1 and Paper 2. 1 of them has parts of more than one type, so the counts add to 39.

Question type	Questions
How a business cycle stage affects the business	7
Weigh two or three economic changes (12 marks)	6
How a change in interest rates affects the business	5
How a change in taxes affects the business	5
Define an economic term	4
Identify points (recession features, benefits, government objectives)	4
How a rise in inflation affects the business	3
State the four stages of the business cycle	2
Judge whether a change always benefits businesses	2
How a change in unemployment affects the business	1

The mark scheme codes are **k** (knowledge: a correct point), **app** (application: a detail from the case that makes sense with the point), **an** (analysis: a developed consequence) and **eval** (evaluation: a justified judgement).

Part	Marks	What earns them
Paper 1 "Define"	2	a full definition; part of it = 1
Paper 1 "Identify" / "State"	2 or 4	1 per point; only the first two (or four) are marked
Paper 1 "Outline two ways"	4	each: k + app
Paper 1 "Explain two ways"	6	each: k + app + an

Part	Marks	What earns them
Paper 1 (e) "Do you think ...?"	6	2 k + 2 an + 2 eval; general, so no app
Paper 2 (a) "Explain two effects"	8	each: the effect (1) + up to 3 more for the chain of explanation, at least one of them applied to the case
Paper 2 (b) "Consider ... which has the biggest effect? Justify"	12	levels: detailed, applied discussion of each change, then a justified conclusion that says why the other change matters less

Every "how does X affect the business" type uses the same chain:

1. **Name the effect on the business** (k): sales fall, costs rise, harder to borrow, easier to recruit. Say what happens **to the business**, not just to customers or the economy: "people have less disposable income" alone is not an effect on the business; "so the shop sells fewer meals" is.
2. **Link it to the change** (an): say **why** the change causes it, through the demand route or the cost route. "Higher interest rates mean the business pays more interest" just repeats the question; say what that does: "so its expenses rise and profit falls".
3. **Use the case** (app): a detail from the stem that makes sense with the point (the product, the number of employees, the loan, the figures). Use a different detail for each point.
4. **Take it one step further** (an, and on Paper 2 a third step): "...so it has less retained profit to pay for the second shop it is planning."

1. How a business cycle stage affects the business (7 questions)

Recession or slump (the most common): explain two effects on Paper 1 (0450/11/O/N/25 Q3 part (d), a fast-food restaurant; 0450/12/O/N/24 Q1 part (d), a small car repair business), or on Paper 2 (a), 8 marks (0450/22/M/J/25 Q4, the cycle moving into recession; 0450/23/O/N/24 Q1, a slump already under way).

Pick two effects from the recession row of the table in "Understand it" (lower sales, trading down, easier recruitment, redundancies, less investment, cash-flow problems, survival as the objective, selling abroad) and give each its full chain.

Good and bad effects both count, but the same idea turned round (for example "labour is cheaper" and then "workers won't demand pay rises") is credited once, so make the second effect a genuinely different one.

Boom or growth: "outline" on Paper 1, 4 marks, k + app each (0450/11/M/J/25 Q1 part (c), an economic boom and a new flower shop; 0450/13/O/N/25 Q3 part (c), economic growth and a house builder). One variant asks how economic growth would affect a multinational's decision to build a new factory (0450/11/O/N/21 Q2 part (d), explain, 6 marks). Use the growth/boom row of the table: higher demand and prices, but scarcer workers and rising costs.

2. Weigh two or three economic changes (12 marks) (6 questions)

Paper 2 (b), levels-marked. You are given two or three changes and asked which has the biggest effect on the business's profit or revenue:

- tax cut and interest rate rise, effect on profit (0450/22/F/M/25 Q4);
- interest rate cut and tax rise, effect on profit (0450/21/O/N/24 Q2);
- a recession's effect on forecast sales and on the supply of workers, which matters more (0450/23/M/J/24 Q3);
- interest rate rise, a fall in the exchange rate and a new legal control, effect on profit (0450/21/M/J/23 Q4);
- higher employment and higher inflation, effect on profit (0450/21/O/N/21 Q4);
- a slump and a government push to cut unemployment, effect on revenue (0450/22/F/M/21 Q4).

Plan:

1. **Each change gets its own paragraph**, with at least two developed effects and the case's figures. Cover the demand route **and** the cost route where both apply.
2. **Weigh them with "it depends"**: is the loan certain? Is the product a luxury, and who buys it? How big is each change, and how fast does it act? Does it hit every competitor equally?
3. **Conclude**: choose one, give the reason in the case, and say **why the other change has less effect**. Make the conclusion answer the exact question: if it asks about **revenue**, the conclusion must talk about revenue, not just "the business".

Level 3 (9–12) needs every change discussed in detail and in context, and a conclusion that rejects the alternative; one change done well caps you in Level 2.

A government drive to cut unemployment works through what it **does** (cut taxes, spend more, cut interest rates), which raises demand; it does not force the business to hire.

3. How a change in interest rates affects the business (5 questions)

Rises: explain two effects of higher interest rates on Paper 2 (a), 8 marks (0450/22/F/M/26 Q4, a café, with rates rising from 2% to 6%), or on Paper 1, 6 marks (0450/13/M/J/24 Q2 part (d), a restaurant; 0450/12/F/M/23 Q1 part (d), a car maker). Falls: outline two ways lower rates affect a clothing manufacturer (0450/12/O/N/25 Q4 part (c), 4 marks); explain two ways a cut affects a dairy, on Paper 2 (a) (0450/23/O/N/22 Q4, 8 marks).

Use the two routes from "Understand it" (reverse them for a fall): the cost route (dearer loans and overdrafts, so higher expenses and lower profit; expansion delayed; harder to get a loan) and the demand route (customers with loans spend less). On Paper 2, a third point can be **little effect**: a cheap treat, a necessity or a business with no loans.

Use the case's figures (the old and new rate, the loan, the overdraft) for application, and work out the extra interest if the loan size is given.

4. How a change in taxes affects the business (5 questions)

Forms: explain two ways a tax increase affects a business (0450/12/F/M/26 Q4 part (d), 6 marks; 0450/12/O/N/21 Q3 part (d), a new tourist tax on a hotel); outline two ways, 4 marks (0450/11/O/N/22 Q3 part (c); 0450/13/M/J/22 Q3 part (c)); one effect each of a higher tax on income and on profits, Paper 2 (a), 8

marks (0450/21/M/J/25 Q4).

1. **Identify the tax.** Income tax works through customers' disposable income; profit tax through retained profit and dividends; a sales or per-night tax through the price.
2. **Explain the effect on the business**, not on the economy: lower demand, so lower revenue; less retained profit, so less to reinvest; higher costs or a smaller profit margin; prices raised, so customers lost; expansion delayed.
3. **When two taxes are named**, give one effect for **each**, explained separately. The profit-tax half is the one candidates find harder: say that less profit is left to retain, then what the business can no longer pay for.
4. **Read the business type:** a service business (websites, a hotel) has no production line, so talk about its customers, its service and its plans.

Redundancies or "wages must rise" are not direct effects of a tax rise; if you use the pay point, show the link (income tax cuts take-home pay, so staff push for a rise).

5. Define an economic term (4 questions)

Two marks for a full definition, one for part of it:

- **Inflation** (0450/13/O/N/24 Q2 part (a), 0450/12/F/M/23 Q1 part (a)): a rise in the **general** price level of goods and services **over time** (2). "Prices of goods go up" = 1. The time element earns the second mark.
- **GDP** (0450/12/O/N/23 Q3 part (b)): the total value of goods and services produced in a country (1) **in a year or other period** (+1).
- **Unemployment** (0450/13/O/N/21 Q2 part (a)): people who want to work and are able to, but cannot find a job (2). "People with no job" = 1. Don't just swap the word round ("having no employment").

6. Identify points (recession features, benefits, government objectives) (4 questions)

Two marks, one per point, and only the first two answers are marked, so give two different, precise answers.

- Two characteristics of a recession (0450/12/F/M/24 Q2 part (a)): rising unemployment; falling GDP; low consumer spending and confidence; low or falling inflation; falling business output, profit and investment; businesses closing; lower tax revenue for the government.
- Two benefits **to a business** of lower tax rates (0450/12/M/J/24 Q4 part (b)): more retained profit; higher sales as customers have more to spend; lower costs; more money to invest and grow; a higher profit margin.
- Two advantages **to a country** of lower unemployment (0450/13/O/N/23 Q4 part (b)): higher incomes and living standards; less government spending on benefits; more tax revenue; more spending, so economic growth.
- Two government economic objectives (0450/12/M/J/21 Q4 part (b)): economic growth (higher GDP); low unemployment; low and stable inflation; a better balance of payments.

Watch whose point of view the question takes: a benefit to a **business** and a benefit to a **country** are different lists.

7. How a rise in inflation affects the business (3 questions)

Outline two ways (Paper 1, 4 marks: 0450/11/M/J/22 Q2 part (c), a bed manufacturer); explain two effects (Paper 1, 6 marks: 0450/13/M/J/21 Q2 part (d), a hairdressing business); explain two effects on Paper 2 (a), 8 marks (0450/21/O/N/22 Q4, a safari tour business, with inflation rising to 4%).

Take two effects from "Changes in inflation and unemployment" (rising costs, pay demands, higher prices losing sales, falling real incomes, harder planning), each with the reason it comes from inflation. Closing shops or cutting staff are things a business might decide to do, not direct effects of inflation.

8. State the four stages of the business cycle (2 questions)

0450/12/M/J/23 Q3 part (c) and 0450/13/O/N/22 Q3 part (c): 4 marks, one per stage: **growth, boom, recession, slump**. The order does not matter. "Downturn" for recession and "depression" for slump are accepted. Introduction, maturity and decline belong to the product life cycle and score nothing; so do "peak" and "trough", which are turning points, not stages.

9. Judge whether a change always benefits businesses (2 questions)

Paper 1 (e), 6 marks, general: "Do you think all businesses benefit from an increase in government spending?" (0450/12/O/N/22 Q3); does a fall in unemployment always benefit businesses (0450/12/M/J/22 Q2)?

1. **A benefit** (k) → consequence (an): contracts and grants; more customers with wages.
2. **A drawback** (k) → consequence (an): higher taxes later; scarce workers and rising wages.
3. **Decision with a reason** (eval × 2): usually "not all": a construction firm wins road contracts while a shop gains little; a firm needing many new workers may struggle to grow.

No marks for case details. Write about the effect on **businesses**, not on consumers or the economy.

10. How a change in unemployment affects the business (1 question)

Paper 2 (a), 8 marks: two ways a jewellery company may be affected by a forecast rise in unemployment (0450/22/M/J/24 Q4). Treat it like a recession (type 1): lower demand, easier recruitment, less pressure for pay rises. Develop each in three steps, one applied to the case.

Worked examples

Example 1

The table shows data for country R.

Year	GDP (\$ billion)	Unemployment (%)	Inflation (%)
2023	480	5.0	3.0

Year	GDP (\$ billion)	Unemployment (%)	Inflation (%)
2024	492	4.6	4.5
2025	486	5.8	2.0

(a) Calculate the percentage change in country R's GDP from 2024 to 2025. Show your working. **[2]**

(b) Identify which stage of the business cycle country R was most likely in during 2025. Use two pieces of evidence from the table to support your answer. **[3]**

(c) Identify which government economic objective was met better in 2025 than in 2024, and explain why. **[2]**

(a) $\frac{486-492}{492} \times 100 = -1.22$ (1), so GDP **fell by about 1.2%** (1).

(b) Recession (1). GDP fell, from \$492 billion to \$486 billion (1), and unemployment rose from 4.6% to 5.8% (1).

(c) Low and stable inflation (1): the rate of inflation fell from 4.5% to 2.0%, so prices were rising more slowly (1).

Total: $2 + 3 + 2 = 7$ marks.

Example 2

Fernhill Furniture makes wooden dining tables in a factory with 45 employees. It has a \$300 000 bank loan with a variable interest rate, and it uses an overdraft each year in the months before its busy season. Interest rates have just risen from 3% to 6%.

Explain two ways Fernhill Furniture could respond to the rise in interest rates. **[6]**

Way 1. Delay its plan to buy new machinery with more borrowing (k). The yearly interest on its existing \$300 000 loan rises from $300\,000 \times 0.03 = 9000$, so \$9000, to $300\,000 \times 0.06 = 18\,000$, so \$18 000 (app), so extra borrowing would push expenses up even further and cut its profit again (an).

Way 2. Reduce how much it uses its overdraft, for example by holding less timber in inventory and chasing customers who owe it money (k), in the months before its busy season (app), so it borrows less at the higher rate and its cash outflows on interest fall (an).

Each way earns k + app + an: 6 marks. The extra \$9000 a year in loan interest ($18\,000 - 9000 = 9000$) is the figure that makes the application convincing.

Example 3

Do you think a cut in interest rates helps a business more than a cut in the tax on profits? Justify your answer. **[6]**

A cut in interest rates makes loans and overdrafts cheaper (k), so a business that borrows pays less interest, its expenses fall and it is more likely to borrow to expand (an). A cut in the tax on profits leaves the business with more profit after tax (k), so it has more retained profit to reinvest or to pay out as dividends, which keeps its owners and investors keen (an).

The interest cut helps more for most businesses, because it works through both routes: it lowers the costs of a business that borrows and also leaves customers with more to spend on their own loans and mortgages, so sales can rise (eval). A cut in profit tax helps only a business that is already making a profit, so a new or struggling business that makes a loss gains nothing from it (eval).

Two developed points (2 k + 2 an), then a decision with a comparing reason (2 eval). No case is given, so application isn't marked. Deciding the tax cut helps more, because a business with no loans gains nothing on its costs from cheaper borrowing while every profitable business keeps more of its profit, would earn the eval marks too.

Example 4

Kestrel Coaches runs day tours by coach for tourists and local people. Last year it sold 20 000 tickets at \$40 each before tax, and a 10% sales tax was added, so customers paid \$44. Most of its customers are on holiday or spending money on leisure. It employs 18 drivers, who are hard to replace. Two changes are expected next year in its country:

- The economy is forecast to move into a boom, and Kestrel's manager expects ticket sales to rise by 10% if prices stay the same.
- The government will raise the sales tax on tickets from 10% to 15%.

Consider how each change might affect Kestrel Coaches. Which change is likely to have the biggest effect on its revenue? Justify your answer. [12]

Last year Kestrel's revenue (before tax) was $20\,000 \times 40 = 800\,000$, so \$800 000.

The boom. In a boom more people are in work and incomes are rising, so families have more to spend on leisure such as coach tours, and more tourists may visit. A 10% rise in ticket sales would mean $20\,000 \times 1.1 = 22\,000$ tickets, and revenue of $22\,000 \times 40 = 880\,000$, so \$880 000, which is \$80 000 more. Kestrel might even raise its prices while demand is strong. But a boom also brings problems: other businesses will be hiring too, so it may be hard to recruit extra drivers, and the 18 it has may ask for higher pay. Without more drivers, Kestrel may not be able to run the extra tours, so some of the extra revenue may not appear.

The sales tax rise. If Kestrel passes the tax on, the price customers pay rises from \$44 to $40 \times 1.15 = 46$, so \$46, a rise of $\frac{2}{44} \times 100 \approx 4.5\%$. Tours are not a necessity, so some customers may choose a cheaper day out, and ticket sales could fall. If Kestrel keeps the price at \$44 to protect sales, it keeps only $44 \div 1.15 \approx 38.26$, so about \$38.26 per ticket, so revenue on 20 000 tickets falls to about \$765 200, roughly \$34 800 (about 4.3%) less. Either way the tax works against revenue. But the tax applies to every coach and tour company, so Kestrel's price does not rise against its direct rivals'.

Conclusion. The boom is likely to have the bigger effect on Kestrel's revenue. Its customers spend on leisure, which is exactly what rises when incomes grow, and the expected \$80 000 rise is more than twice the most the tax rise could take away (about \$34 800 if Kestrel absorbs it all). The tax rise is the smaller effect because a \$2 rise on a \$44 day out is small for people already spending on holidays, and rival tour companies face the same tax. The boom's effect depends on Kestrel finding enough drivers, so the manager should start recruiting and training drivers now.

Both changes discussed in context with figures, and a choice that says why the other matters less: Level 3 (9–12). Choosing the tax rise, justified by a shortage of drivers, would score as well.

Common mistakes

- **Mixing up the business cycle and the product life cycle.** Answering "introduction, growth, maturity, decline" for the business cycle, or "boom" and "slump" for the product life cycle. Business cycle: growth, boom, recession, slump.
- **Giving "peak" and "trough" as stages.** They are turning points. The four stages are growth, boom, recession and slump.
- **Thinking inflation rises in a recession.** Demand is weak in a recession, so inflation is usually low or falling. Rising material prices and wages belong to a boom.
- **Saying a business will hire more people in a recession without saying why.** The bigger pool of applicants makes recruiting easier and cheaper; say what the business gains, such as skilled staff for an expansion or lower labour costs.
- **Incomplete definitions.** For inflation: the **general** price level (not one product), **prices** (not costs) and **over time**. For GDP: the **time period**. Describing features ("unemployment falls") or causes is not a definition, and neither is rearranging the words of the term.
- **Confusing taxes and interest rates.** Interest is the price of borrowing, paid to the lender; tax is paid to the government. Interest rates are not government income and do not mean inflation has risen.
- **Thinking a tax rise helps the business.** Tax money goes to the government, not to the business.
- **Forgetting that competitors face the same change.** A tax rise or interest rate rise hits every business of that kind, so don't claim it makes this business's prices look high next to its rivals'.
- **Jumping steps.** Linking an interest rise straight to "lower profit" or "less disposable income" without the link in between earns little. Show the route: rate up → loan repayments up → expenses up → profit down.
- **Repeating the knowledge as analysis.** "Lower demand, so fewer sales" says the same thing twice. Analysis is a new consequence: "...so revenue falls and the second shop is put off".
- **Saying inflation raises revenue and profit because prices rise.** Costs rise too, and higher prices can lose sales.
- **Vague effects.** "It will affect profit" or "it may not survive" scores nothing without the reason.
- **In a 12-mark question, a conclusion that only repeats the paragraphs above.** Give a new reason why one change matters more, say why the other matters less, and answer the exact measure asked (revenue or profit).

How to get the marks

- **Define** (2 marks): one sentence with every part. Inflation: general price level + over time. GDP: total value of goods and services in a country + over a year. Unemployment: willing and able to work + cannot find a job.
- **Identify / State**: short, different answers in the recognised words ("recession", "low and stable inflation"); only the first two (or four) are marked.
- **Outline and Explain** (Paper 1, 4 and 6 marks): an effect on the business (k), a different case detail for each (app) and, for "explain", what it leads to for this business (an): lower revenue, higher cash outflows, delayed expansion, less retained profit.
- **Paper 2 (a)** (8 marks): two effects, each named and then explained in a chain of three steps, one using the case's numbers (the rate going from 2% to 6%, the loan, the tax rates). Work out a figure if you can.
- **Paper 1 (e)** (6 marks): no case details. One benefit and one drawback, each developed, then a decision that compares them. "It depends on the type of business" earns evaluation only if you say **which** businesses and **why**.
- **Paper 2 (b)** (12 marks): discuss **every** change named, in the case, through both routes; then choose one and say why the other matters less.
- **"Justify your answer"**: the marks are in the reason, not the choice. Either choice can score full marks.
- **Read the change exactly**: a rise or a fall, interest or tax, which tax, recession or boom. Answering about the wrong one scores nothing.

Quick check

1. Name the stage of the business cycle in each case. (a) GDP has risen for three years, factories are running at full capacity, and businesses report that skilled workers are very hard to find. (b) GDP has stopped falling, but unemployment is 11% and many shops in town centres have closed.
2. A typical basket of goods cost \$250 last year and costs \$265 this year. Calculate the rate of inflation. A worker's pay rose by 4% over the same year: can she buy more or less than before? Explain.
3. A printing business uses an overdraft of \$60 000 on average through the year. The interest rate on the overdraft rises from 6% to 9%. How much extra interest will it pay in a year?
4. A company makes a profit before tax of \$150 000. The tax on profits rises from 20% to 25%. Calculate its profit after tax before and after the change, and the fall. Explain one way the fall could affect the company.
5. Identify two ways a business might respond to a recession.

Answers

1. (a) **Boom**: GDP is high, demand exceeds capacity and labour is scarce. (b) **Slump**: GDP is at its lowest, unemployment is high and many businesses have failed.
2. Inflation = $\frac{265-250}{250} \times 100 = 6$, so **6%**. Her pay rose by 4%, less than the 6% rise in prices, so she can buy **less** than before: her real income has fallen.
3. Before: $60\,000 \times 0.06 = 3600$, so \$3600. After: $60\,000 \times 0.09 = 5400$, so \$5400. Extra interest = $5400 - 3600 = 1800$, so **\$1800** a year.
4. Before: $150\,000 \times (1 - 0.20) = 120\,000$, so **\$120 000**. After: $150\,000 \times (1 - 0.25) = 112\,500$, so **\$112 500**. The fall is $120\,000 - 112\,500 = 7500$, so **\$7500**. With less profit after tax there is less retained profit, so the company has less of its own money to pay for new equipment and may have to borrow or delay its plans (or it pays smaller dividends, so shareholders are less happy).
5. Any two: cut costs (for example less overtime or cheaper suppliers); cut prices or launch a cheaper range; delay expansion; make survival the main objective; look for customers in other countries.

Past questions to try

- **0450/22/M/J/25 Q4**: part (a), two effects on a business of the economy moving into recession (8 marks).
- **0450/21/O/N/24 Q2**: part (b), an interest rate cut against a tax rise: which affects profit more?
- **0450/21/M/J/25 Q4**: part (a), one effect each of higher income tax and higher profit tax.
- **0450/12/M/J/22 Q2**: part (e), does a fall in unemployment always benefit businesses?