

Cambridge IGCSE · Business Studies 0450 · Notes

Cash-flow forecasting and working capital

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Last checked 5 October 2026

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. **Why cash matters.** Explain why a business needs cash, and why a business making a profit can still fail if it runs out of cash.
 2. **What a cash-flow forecast is.** Say what a forecast shows, how a simple one is built from cash inflows and outflows, and why it is important.
 3. **Complete or amend a forecast.** Fill in missing figures in a simple forecast, and change it when something changes (a new cost, a late payer, a new contract).
 4. **Interpret a forecast.** Read a forecast to spot when the business will be short of cash, by how much, and why.
 5. **Overcome a short-term cash-flow problem.** Explain ways to deal with a cash shortage, such as an overdraft, delaying payments to suppliers or asking customers who owe money to pay sooner.
 6. **Working capital.** Explain what working capital is and why it is important.
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Understand it

Cash and why it matters

Cash is the money a business holds in notes, coins and its bank account, ready to spend. Every business needs it to:

- **pay day-to-day costs:** wages, suppliers, rent, electricity, advertising, interest;
- **repay short-term debts** when due, such as an overdraft;
- **meet emergencies**, such as a broken machine or a sudden fall in sales;
- **survive:** a business that cannot pay its debts can be forced to close, even with plenty of orders.

Cash and profit are different things. **Profit** is revenue minus costs over a period. It is counted when a sale is made, even if the customer has not paid yet. **Cash** is only counted when money actually arrives in or leaves the bank. So a business can be **profitable and still run out of cash**, for example when:

- it sells on **credit**, so the sale counts in profit now but the cash arrives weeks later;
- it pays for **inventory** (goods and materials) long before it sells it;
- it buys a **non-current asset**, such as a van, paying a large sum at once;
- it is **growing fast** (overtrading), buying materials and paying staff for big orders before customers pay.

Profit matters in the long term; cash matters now, because without it this month's bills cannot be paid.

Revenue is not cash either: a credit sale is revenue when it is made, but cash only when the customer pays.

Cash inflows and cash outflows

A **cash inflow** is money coming into the business. A **cash outflow** is money going out.

Cash inflows	Cash outflows
cash sales (customers paying at once)	payments to suppliers (trade payables) for goods and materials
payments from customers who bought on credit (trade receivables)	wages and salaries
money received from a bank loan	rent, electricity, insurance, advertising
a government grant	buying non-current assets (machinery, vehicles, buildings)
money put in by the owner, or from selling shares	loan repayments and interest
selling a non-current asset no longer needed	tax
interest or dividends received	dividends paid to shareholders

Be precise: the inflow is the **payment** from trade receivables (customers who owe the business money), and a loan **received** is an inflow while a loan **repaid** is an outflow. Revenue, profit and costs are income statement words, not cash flows.

The cash-flow forecast

A **cash-flow forecast** is an estimate of the cash a business expects to receive and pay out in each of the coming months. It looks forward: nothing in it has happened yet. It is usually set out like this:

Row	How it is worked out
Cash inflows	each inflow listed, then a total
Cash outflows	each outflow listed, then a total
Net cash flow	cash inflows minus cash outflows for the month

Row	How it is worked out
Opening balance	the cash a business has at the start of the month
Closing balance	the cash a business has at the end of the month: opening balance + net cash flow

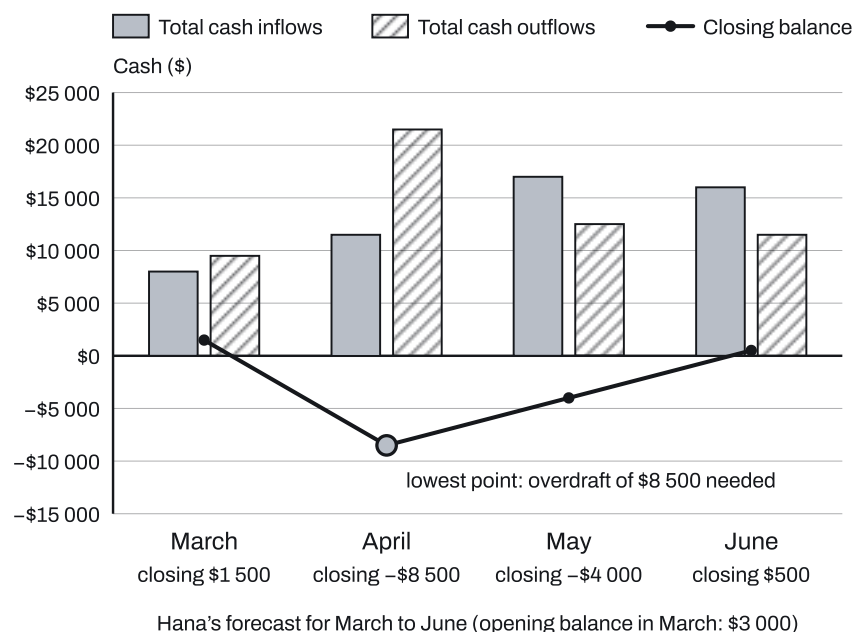
The closing balance of one month becomes the opening balance of the next, because the cash at the end of March is the same cash at the start of April. A negative figure is shown in **brackets**, so (2 000) means minus \$2000. A negative closing balance means the business has spent more than it had: it must have an overdraft or other borrowing to cover the gap.

How to complete or amend a forecast

Three rules fill any gap:

1. **Net cash flow = total inflows – total outflows.** If a total is missing, work backwards: inflows = net cash flow + outflows; outflows = inflows – net cash flow.
2. **Closing balance = opening balance + net cash flow.** Adding a negative net cash flow makes the balance smaller.
3. **Opening balance = last month's closing balance.**

To **amend** a forecast, change the rows and months the change affects, then work the totals and balances through every later month.



The chart is Hana's forecast from Example 2. The closing balance falls below zero in April, when a \$9000 van is bought in a quiet month, and stays negative in May even though May's net cash flow is positive. A forecast shows the shortfall months **before** they happen.

Interpreting a forecast

When you read a forecast, ask four questions:

1. **When** does the closing balance go negative, and for how many months?
2. **How big** is the largest shortfall? That is the size of the overdraft needed.
3. **Why** does it happen? Look for outflows that jump (a large purchase) or inflows that dip (a quiet season, slow payers).
4. **Is it temporary?** A shortfall that recovers soon is a short-term problem; one that keeps growing means the business spends more than it earns.

Why a cash-flow forecast is important

- **It warns of shortfalls in advance**, so the business can act in time: arrange an overdraft, delay a purchase, chase customers.
- **It shows how much to borrow**: the largest negative closing balance is the overdraft limit to ask for.
- **It supports a loan application**: a bank wants to see there will be cash for repayments; it is part of a new business's business plan.
- **It helps planning and decisions**: whether a new machine can be afforded, and in which month.
- **It helps manage cash**: comparing actual figures with the forecast shows whether spending is under control.
- **It spots spare cash** that could pay off a loan or buy in bulk.

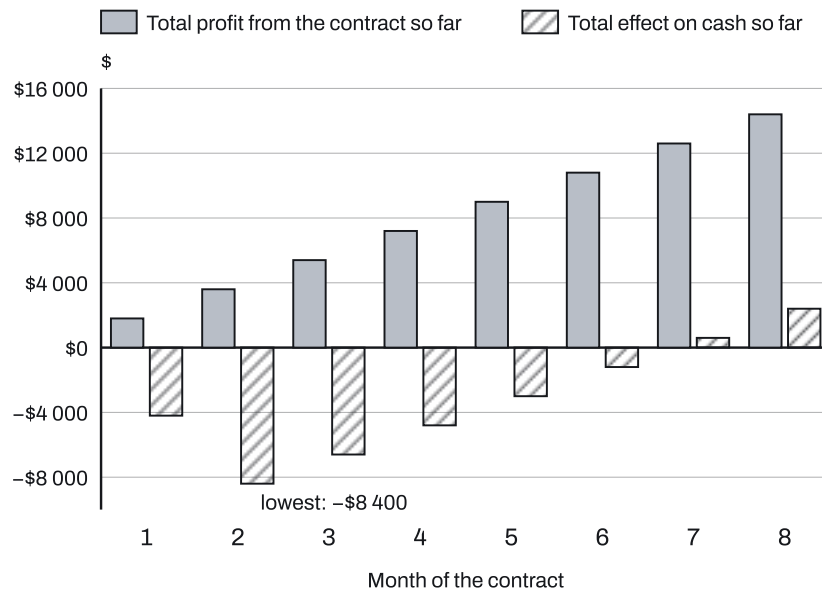
It is only as good as its estimates, but far better than finding a shortfall when the wages cannot be paid.

Causes of cash-flow problems

A **cash-flow problem** is when a business does not have enough cash to pay its bills when they are due. The usual causes:

- **Customers are given too long to pay**, or many sales are on credit: cash comes in late.
- **Suppliers are paid too quickly**, or give no trade credit: cash goes out early.
- **Too much inventory**: cash is tied up in goods on the shelves.
- **Overtrading**: growing faster than the cash coming in can support.
- **Seasonal or falling demand**: fewer sales in some months, but the same rent and wages.
- **Poor planning or unexpected costs**: no forecast, or a forecast that left out a big bill.
- **A large one-off purchase**, such as equipment, paid for from cash instead of long-term finance.

The heart of most of these is a **timing gap**: cash goes out to pay for goods and staff before cash comes back from customers.



The chart is from Example 4. The contract makes a profit from the first month, yet it takes cash out of Kai's account for six months, because he pays for the lunches at once but is paid two months later.

Overcoming a short-term cash-flow problem

Every way works by doing one of two things: **bringing cash in sooner or in larger amounts**, or **sending cash out later or in smaller amounts**. In an answer, always say which.

Way	Effect on cash	Drawback
Bank overdraft	lets the business spend more than is in its account, up to a limit	interest, often high; the bank can ask for it back at short notice
Short-term bank loan	a cash inflow now	interest; repayments are outflows later
Delay paying suppliers (longer trade credit)	outflows happen later, so cash stays in the business longer	suppliers may refuse or withdraw discounts
Ask customers to pay sooner (shorter credit, early-payment discounts, cash only)	inflows arrive earlier	customers may go to rivals; a discount means less cash in total
Delay or cancel buying non-current assets	a large outflow is avoided or moved to a better month	the business goes without the equipment
Sell a non-current asset no longer needed	a one-off cash inflow	the asset is gone if needed later
Find cheaper suppliers	smaller cash outflows each month	quality may fall

Way	Effect on cash	Drawback
Reduce inventory (buy smaller amounts more often)	less cash spent on goods waiting to be sold	may run out if demand rises

These are **short-term** fixes. Issuing shares or retained profit are long-term finance, too slow for next month's gap, and "cut costs" or "increase sales" alone are too vague.

Working capital

Working capital is the money available to pay day-to-day costs (current assets minus current liabilities).

- **Current assets** are what the business owns that will turn into cash within a year: cash, inventory and trade receivables.
- **Current liabilities** are what it owes that must be paid within a year: trade payables, an overdraft, short-term loans.

working capital = current assets – current liabilities

Working capital is the **fund** that pays the day-to-day costs, not the costs themselves. It is not the start-up capital used to set a business up, and it is not used to buy non-current assets such as machinery or a franchise; those need long-term finance.

Why working capital is important:

- **To pay day-to-day costs** (wages, suppliers, bills): without it the business cannot buy materials or pay staff, so it cannot trade.
- **To repay short-term debts** on time; a business that cannot pay may become **insolvent** and close.
- **To cope with emergencies** and unexpected costs, and with **seasonal demand** (paying staff through quiet months).
- **To keep a good credit reputation**, so suppliers keep giving trade credit and banks will lend; and **to support a loan application**.
- **To take opportunities**, such as bulk-buying discounts, and **to give customers credit**, which can win sales.

Holding far more than needed has a cost too: idle cash could have paid off a loan or bought equipment.

Key facts and formulas

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

Fact or formula	Status
Cash-flow forecast: an estimate of the cash a business expects to receive and pay out in each of the coming months	Learn it

Fact or formula	Status
Net cash flow = cash inflows – cash outflows (for the month)	Learn it
Closing balance = opening balance + net cash flow	Learn it
Opening balance (the cash a business has at the start of the month) = the previous month's closing balance	Learn it
Missing outflow = cash inflows – net cash flow; missing inflow = net cash flow + cash outflows	Learn it
In a forecast, a negative figure is shown in brackets: (2 000) means minus \$2000	Learn it
Working capital: the money available to pay day-to-day costs (current assets minus current liabilities)	Learn it
Working capital = current assets – current liabilities	Learn it
Ways to overcome a short-term cash-flow problem: overdraft, short-term loan, delay paying suppliers, ask customers to pay sooner, delay buying non-current assets, sell unwanted assets	Learn it
Profit is counted when a sale is made; cash is counted when the money arrives or leaves	Learn it

How to do it

We have tagged 27 questions on this topic (2021–2026), on Paper 1 and Paper 2. Nine of them have parts of more than one type, so the counts add to 39.

Question type	Questions
Explain ways to overcome a cash-flow problem	6
Explain why cash, managing cash flow or working capital is important	6
Calculate missing values in a cash-flow forecast	5
Explain why a cash-flow forecast is useful	4
Identify or explain cash inflows and cash outflows	4
Define a term	4
Explain causes of cash-flow problems	3
Profit versus cash	3
Calculate working capital	2

Question type	Questions	
Explain how a change affects a cash-flow forecast	2	
The mark scheme codes are k (knowledge: a correct point), app (application: a detail from the case), an (analysis: a developed consequence) and eval (evaluation: a justified judgement).		
Part	Marks	What earns them
Paper 1 "Define"	2	a full definition; a partial one gets 1
Paper 1 "Identify" or "Calculate X and Y"	1 each	short, different points or correct values; only the first ones asked for are marked
Paper 1 "Outline" (c)	4	each point: k + app
Paper 1 "Explain" (d)	6	each point: k + app + an
Paper 1 (e) "Do you think ...?" or "Explain two ... Which ...?"	6	2 k + 2 an + 2 eval; general, so no app
Paper 2 (a)	8	either four points × (1 + 1 explanation in context), or two points × (1 + up to 3 development, one of them in context)
Paper 2 (b) "Consider ... Which ...? Justify"	12	levels: applied discussion of every option, then a choice that says why the others were rejected

1. Explain ways to overcome a cash-flow problem (6 questions)

Paper 1 (d), 6 marks: each of two ways earns k + app + an.

- 1. Name a short-term way** (k): overdraft, short-term loan, delay paying suppliers, ask customers to pay sooner, delay buying equipment, sell an unwanted asset.
- 2. Tie it to the business** (app): its product, customers, suppliers' terms, or the month or size of the shortfall.
- 3. Say what it does to cash inflows or outflows** (an). "Improves cash flow" earns nothing; "so cash leaves the business a month later" does.

Example for a garden centre short of cash in April: "Ask the plant supplier for 60 days to pay instead of 30 (k), as the garden centre's busy season starts in May (app), so the April payment becomes a May outflow, when more cash is coming in (an)."

Variations you will meet:

- **A toy maker with a cash-flow problem (0450/12/F/M/26 Q1, part (d))**: the report says many gave a method's advantages instead of how it helps cash, some gave ways to raise profit, some confused trade payables with trade receivables, and a few explained why the problem arose.
- **A small jewellery shop that pays its suppliers 30 days later (0450/12/O/N/25 Q2, part (d))**: asking for longer than 30 days was ready application; an overdraft, a short-term loan, delaying or selling non-current assets and asking customers to pay sooner were also credited.

- **A bicycle retailer with a negative balance in September (0450/13/M/J/23 Q1, part (d)):** long-term answers (more capital, shares, retained profit), cutting prices or advertising alone, and anything about production were not credited. The report says many wrote "cash flow" without saying which part changed.
- **A snack maker forecasting negative balances (0450/12/F/M/21 Q3, part (d)):** the report says many repeated that a way "would improve cash flow" without saying how, or wrote about profit.
- **Paper 2 (a), two ways for a soap maker (0450/21/O/N/21 Q4, part (a)):** the report praised using the case's figures: cutting the days customers take to pay from 60 back towards 40 or 20 (more cash in), and paying suppliers after 30 or 40 days instead of 20 (less cash out).
- **Paper 2 (b), a bank loan, a 20% booking deposit or trade credit for a hotel (0450/22/F/M/22 Q4, part (b)):** answers without the effect on cash were often limited to Level 1. Better ones saw the loan brings cash in now but adds repayments with interest later, and the deposit brings cash in at booking and was lower than the 30% rival hotels charged; some thought trade credit meant suppliers would stop supplying.

2. Explain why cash, managing cash flow or working capital is important (6 questions)

Identify (2): names only. Outline (c), 4 marks: each reason k + app. Paper 2 (a), 8 marks: 1 per reason, up to 3 more explaining it, one in context.

1. **Pick different reasons:** day-to-day costs, short-term debts, emergencies, survival; for working capital also credit reputation, bulk-buying discounts, seasonal demand, offering credit, a loan application. Paying wages and paying suppliers are **one** reason.
2. **Tie each to the business** (app) with a different case detail.
3. **For 8 marks, build a chain:** reason → what happens without the money → consequence.

Variations you will meet:

- **Identify two reasons why cash is important (0450/12/O/N/25 Q2, part (b)):** "pay expenses" or "pay short-term debts" counts without an example.
- **Why managing cash flow matters for a bicycle retailer (0450/13/M/J/23 Q1, part (c)):** the mark scheme refused "invest or expand", anything about profit, and "support a loan application".
- **Why cash is important for a beauty products maker (0450/12/O/N/22 Q2, part (c)):** wages, suppliers, advertising, short-term debts, emergencies, each linked to the case.
- **Why working capital is important for a clothing retailer (0450/12/M/J/23 Q4, part (c)):** the report says different costs earned only once, some confused working capital with profit, and some defined the term needlessly.
- **Working capital for a hairdresser starting up (0450/11/O/N/22 Q4, part (c)):** two examples of expenses earned at most 2 marks, and working capital does not buy the franchise.
- **Paper 2 (a), working capital for a bathroom-products maker (0450/21/O/N/25 Q3, part (a)):** reason, then a chain of up to three steps, one about the case, such as buying components to keep making its products.

3. Calculate missing values in a cash-flow forecast (5 questions)

Paper 1 (b), 2 marks: 1 per value, in a three-month table.

1. **Use the right rule:** net = inflow – outflow; closing = opening + net; opening = last month's closing. A missing inflow or outflow is worked backwards from the net cash flow.
2. **Check the sign:** a negative answer needs brackets or a minus sign. A \$ sign and the 000s are not needed.

Variations you will meet:

- **Net cash flow and a missing inflow (0450/13/M/J/25 Q2, part (b)):** X is a negative net cash flow, (15); Y is an inflow worked back, 90. The report says a common mistake was leaving out the minus sign for X.
- **A missing outflow and a closing balance (0450/11/M/J/25 Q3, part (b)):** X = 500 (inflow minus a negative net cash flow), Y = (40). Many lost a mark by not showing Y as negative.
- **A missing inflow and outflow (0450/13/M/J/23 Q1, part (b)):** the commonest wrong answer was \$0 for Y, from missing that the net cash flow was negative.
- **Net cash flow and a closing balance (0450/11/M/J/23 Q2, part (b)):** both positive; some lost a mark by making X negative.
- **An opening balance and a net cash flow (0450/12/F/M/21 Q3, part (a)):** the opening balance is the previous closing balance, (300), and Y is (400); the commonest error was leaving out the brackets.

4. Explain why a cash-flow forecast is useful (4 questions)

Identify (1 each); (e), 6 marks, general; Paper 2 (a), 8 marks, in context.

1. **Name a use (k):** spot shortfalls in advance, size the overdraft, support a loan application, plan and decide, manage cash, spot idle cash.
2. **Develop it (an):** what the business can then do, such as arrange an overdraft before the shortfall month. It looks ahead: it does not show profit or sales already made.

Variations you will meet:

- **Identify four reasons a forecast is useful (0450/11/M/J/25 Q3, part (c)):** the report calls it the most challenging part (c) on the paper; a common error was saying it helps work out profit or loss.
- **Two ways a forecast is used, then the most important (0450/12/F/M/24 Q3, part (e)):** general. For example, a loan application against spotting a shortfall in time, then decide which matters more and why.
- **Paper 2 (a), four reasons for a theatre to prepare one before opening (0450/22/M/J/23 Q3, part (a)):** 1 per reason, 1 for linking it to the case. The report says most did not apply their reasons, and some listed many expenses (repetition).
- **Paper 2 (a), two reasons a forecast in the appendix matters to a toy shop (0450/22/M/J/21 Q3, part (a)):** the report says many thought it showed sales and costs already made; stronger answers said it helps the owner plan ahead, and used the appendix figures.

5. Identify or explain cash inflows and cash outflows (4 questions)

Identify (1 each). Paper 2 (a), 8 marks: 1 per inflow or outflow, 1 for applying it. Name the **movement of money** ("payments received from trade receivables", "repaying the bank loan"), and give different examples.

Variations you will meet:

- **One inflow and one outflow** (0450/12/F/M/24 Q3, part (a)): only the first answer for each is marked.
- **One of each, a car repair business** (0450/13/O/N/21 Q2, part (b)): the report says revenue, profit, costs or the single word "loans" lost marks.
- **Four examples of a cash inflow** (0450/11/M/J/23 Q2, part (c)): "trade receivables" alone and "investors" were not credited; payments from trade receivables and funds from investors were.
- **Paper 2 (a), two inflows and two outflows for a rug maker's first year** (0450/22/F/M/25 Q4, part (a)): cash sales of rugs, the owner's own money, a bank loan; wages, factory rent, electricity, interest, raw materials, each with a case detail.

6. Define a term (4 questions)

Paper 1 (a), 2 marks: full definition 2, partial 1.

- **Cash-flow forecast** (0450/12/O/N/25 Q2, part (a)): 1 for inflows and outflows, 1 for the idea of an estimate of the future: an estimate of the cash a business expects to receive and pay out in each of the coming months.
- **Working capital** (0450/12/O/N/23 Q1, part (a); 0450/11/O/N/21 Q1, part (b)): the money available to pay day-to-day costs (current assets minus current liabilities). "Funds to pay wages" alone is partial; the 2021 report says some defined starting capital instead.
- **Opening balance** (0450/12/M/J/21 Q2, part (a)): the cash a business has at the start of the month. "Funds" or "capital" instead of cash, reordering the words, or only "last month's closing balance" were not credited.

7. Explain causes of cash-flow problems (3 questions)

Identify (2); (d), 6 marks: each cause k + app + an; Paper 2 (a), 8 marks.

1. **Name a cause** (k): customers given too long, suppliers paid too quickly, too much inventory, overtrading, seasonal or low demand, poor planning.
2. **Find it in the case** (app), then **say what it does** (an): cash in arrives later, or cash out leaves sooner.

Variations you will meet:

- **Identify two reasons** (0450/11/M/J/23 Q2, part (a)): the report says a common error was describing a cash-flow problem instead of its causes; the commonest correct answers were falling demand and too long a credit period.

- **An office-equipment shop giving customers 4 weeks to pay (0450/13/M/J/25 Q2, part (d)):** the 4 weeks was ready application. The report says some described the table, made vague statements about more outflows, confused cash flow with profit, or gave solutions.
- **Paper 2 (a), a sandwich business (0450/23/M/J/22 Q4, part (a)):** marks came most often from the timing gap: suppliers paid at once, business customers paying at the end of the month.

8. Profit versus cash (3 questions)

Paper 1 (c), 4 marks, or (e), 6 marks, general. Give a **clear difference** (cash pays this month's bills, profit matters for long-term survival; a credit sale counts in profit before the cash arrives). For (e), develop a point for profit (source of finance, reward for risk, measure of success) and one for cash (pays day-to-day costs, credit sales delay cash, less need for a costly overdraft), then decide.

Variations you will meet:

- **The difference between profit and cash for a driving school (0450/12/F/M/22 Q3, part (c)):** 1 for knowing profit or cash, 1 for a clear difference (needed for full marks), 2 for case links. The report says many assumed revenue is the same as cash.
- **Is making a profit more important than managing cash flow? (0450/11/O/N/23 Q3, part (e); 0450/13/M/J/21 Q2, part (e), for a growing business):** the 2023 mark scheme did not accept "important for growth" unless linked to profit as a source of finance. The 2021 report says many treated the two as the same.

9. Calculate working capital (2 questions)

Paper 1 (b), 2 marks: current assets – current liabilities for the right year, with units (\$m if the table is in millions).

- **A clothing maker, two years given (0450/11/M/J/24 Q3, part (b)):** the wrong year earned at most 1; the right figure in the working but not given as the final answer earned 1.
- **A food retailer (0450/13/M/J/22 Q2, part (b)):** "m" was needed for full marks; the report says some combined random figures from the table.

10. Explain how a change affects a cash-flow forecast (2 questions)

Paper 1 (d), 6 marks: for each change, which row moves (sales, wages, a purchase, redundancy pay), which way and when, using the case.

- **A competitor closes and the minimum wage rises, for a car repair business (0450/13/O/N/21 Q2, part (d)):** more customers → higher inflows; higher wage outflows. The report says some explained effects on revenue or profit, or misread the closure as more competition.
- **New packing technology costing \$40 000 that makes 35 workers redundant (0450/12/M/J/21 Q2, part (d)):** a large outflow to buy it; then lower wage outflows; possibly redundancy payments. The report says most found only one effect, and some said jobs would be lost without the effect on outflows.

Worked examples

Example 1

(a) A business has current assets of \$85 000 and working capital of \$30 000. Calculate its current liabilities. **[2]**

(b) Identify two cash inflows that do not come from selling products. **[2]**

(a) Working capital = current assets – current liabilities, so current liabilities = 85 000 – 30 000 (1) = 55 000 dollars (1).

(b) Money received from a bank loan (1). Money from selling an unwanted delivery van (1).

This is a general question, so there is no case to apply. Part (a) earns 1 for the method and 1 for the answer; part (b) earns 1 per inflow (2 + 2 = 4). Total 4 marks.

Example 2

Hana runs a plant nursery as a sole trader. Her cash-flow forecast for March to June is below (\$). She plans to buy a van in April.

	March	April	May	June
Cash sales	6 000	9 000	14 000	12 000
Payments from credit customers	2 000	2 500	3 000	4 000
Total cash inflows	8 000	A	17 000	16 000
Payments to suppliers	5 000	8 000	7 000	6 000
Wages	3 000	3 000	4 000	4 000
Rent and bills	1 500	1 500	1 500	1 500
Purchase of a van	0	9 000	0	0
Total cash outflows	9 500	21 500	12 500	11 500
Net cash flow	(1 500)	B	4 500	4 500
Opening balance	3 000	1 500	C	(4 000)
Closing balance	1 500	(8 500)	(4 000)	D

(a) Calculate A, B, C and D. **[4]**

(b) State the overdraft limit Hana should arrange, and the months in which she will be using it. **[2]**

(c) Hana is considering two changes: **delaying the van until June**, or **asking her supplier to let her pay April's \$8000 bill in June instead**. For each change, calculate the new closing balance for April and explain how the change affects Hana's cash flow. **[6]**

(d) Which change should Hana choose? Justify your answer. [2]

(a) $A = 9000 + 2500 = 11\,500$ (1). $B = 11\,500 - 21\,500 = -10\,000$, written (10 000) (1). C = April's closing balance = (8 500) (1). $D = -4000 + 4500 = 500$ (1).

(b) \$8500, the largest negative closing balance (1). She uses it in April and May, and is back above zero by the end of June (1).

(c) **Delay the van.** April outflows fall to $21\,500 - 9000 = 12\,500$, so net cash flow is $11\,500 - 12\,500 = -1000$ and April's closing balance is $1500 - 1000 = 500$ dollars (1). The \$9000 outflow moves from April, her quiet month, to June (k), so her balance never goes below zero: May closes at $500 + 4500 = 5000$ dollars and June at $5000 + 4500 - 9000 = 500$ dollars, and she needs no overdraft at all (an).

Pay the supplier later. April outflows fall to $21\,500 - 8000 = 13\,500$, so net cash flow is $11\,500 - 13\,500 = -2000$ and April's closing balance is $1500 - 2000 = -500$ dollars (1). The \$8000 outflow is delayed by two months (k), which cuts the shortfall from \$8500 to \$500 but does not remove it: May closes at $-500 + 4500 = 4000$ dollars, and June's outflows rise to $11\,500 + 8000 = 19\,500$, so June closes at $4000 + 16\,000 - 19\,500 = 500$ dollars (an).

(d) Hana should delay the van, because it removes the shortfall completely, so she pays no overdraft interest and does not depend on her supplier agreeing (eval). Delaying the supplier still leaves her \$500 overdrawn in April and risks the supplier refusing or ending her credit terms, while the van can wait two months if she can manage deliveries until her busy season (eval).

Part (a) earns 1 per value (4), part (b) 1 per point (2), part (c) a calculation mark plus k and an for each change ($3 + 3 = 6$) and part (d) 2 eval marks. Total 14 marks. Either change leaves June's closing balance at \$500, because it only moves an outflow to a later month.

Example 3

Explain two reasons why a profitable business might still run short of cash. Which reason is likely to be the bigger danger for a new business? Justify your answer. [6]

The business sells on credit (k). The sale counts in revenue and profit on the day it is made, but the customer pays weeks later, while wages and suppliers must be paid now, so the bank balance can fall even while the income statement shows a profit (an).

The business holds too much inventory (k). Cash has been spent on goods sitting in the storeroom, and that spending does not reduce profit until the goods are sold, so the business looks profitable while the money is tied up and not available to pay this month's bills (an).

Selling on credit is likely to be the bigger danger for a new business, because it has no trading record, so its own suppliers may want paying at once while it still has to offer credit to win customers, leaving it squeezed from both sides (eval). Inventory is under the owner's control: ordering smaller amounts more often frees cash quickly, whereas when credit customers actually pay is decided by them (eval).

This is a general question, so there are no marks for application: $2\,k + 2\,an + 2\,eval = 6$.

Example 4

Kai owns a café with 4 employees. A local company asks him to supply lunches for its office staff. The contract would bring in \$6000 of revenue each month. Extra ingredients and a part-time cook would cost \$4200 each month, paid in the same month. The company pays for each month's lunches two months later (lunches made in month 1 are paid for in month 3). Kai has \$3000 in the café's bank account and no overdraft.

(a) Calculate (i) the profit the contract makes each month, and (ii) the largest amount by which the contract reduces Kai's bank balance, and the first month in which the contract has added cash overall. [3]

(b) Explain two problems Kai could face if he accepts the contract without arranging more working capital. [8]

(a) (i) Profit = $6000 - 4200 = 1800$ dollars a month (1).

(ii) In months 1 and 2 Kai pays out $2 \times 4200 = 8400$ dollars and receives nothing, so the contract has reduced his balance by \$8400 by the end of month 2 (1). From month 3 the cash effect rises by $6000 - 4200 = 1800$ dollars a month: -6600 , -4800 , -3000 , -1200 , then $+600$, so month 7 is the first in which it has added cash overall (1).

(b) **Problem 1: he cannot pay the contract's costs before the company pays him** (1). Kai must pay \$4200 a month for ingredients and the cook from month 1, but the first payment arrives only in month 3 (1). By the end of month 2 he is \$8400 out of pocket, far more than the \$3000 in his account (1). He would run out of cash to buy the ingredients, so he could not supply the lunches and could lose the contract (1).

Problem 2: the café's usual bills may go unpaid (1). The wages of his 4 employees and the café's own suppliers are still due every month (1), and the contract will soak up the spare cash he normally uses for them (1). If he paid staff or suppliers late, staff could leave and suppliers could stop giving him trade credit, harming the café as well as the contract (1).

Part (a) earns 1 per step (3 marks). In part (b), each problem earns 1, plus 3 for developing it, one of them in context ($4 + 4 = 8$). Total 11 marks. Kai's \$3000 covers only part of the \$8400 gap, so he would need an overdraft of at least $8400 - 3000 = 5400$ dollars, or shorter payment terms from the company.

Common mistakes

- **Confusing cash flow with profit.** Reports in 2021, 2022, 2023 and 2025 all name this: saying profit pays day-to-day bills, that a positive balance is profit, or that a forecast records or works out profit. A forecast is not an income statement, and revenue is not cash.
- **Thinking a forecast shows what has already happened.** It is an estimate of the future.
- **Losing the minus sign**, or making a positive answer negative. Check the sign of the net cash flow before working backwards; treating a negative one as positive gives answers such as \$0.
- **Leaving out the units** in working capital ("million"), or combining random figures from the table.
- **"It would improve cash flow."** Say whether cash comes **in** sooner or goes **out** later. For the effect of a change, name the inflow or outflow, not just "revenue" or "profit".

- **Ways to raise profit instead of cash**, vague "cut costs" or "increase sales", or a method's general advantages instead of how it eases the shortage.
- **Answering the wrong question**: causes when ways are asked for, solutions when causes are, describing the table, or saying what a cash-flow problem is instead of why it happens.
- **Long-term fixes for a short-term gap**, such as selling shares or retained profit; and production or raw materials for a retailer.
- **Mixing up trade payables (suppliers the business owes) and trade receivables (customers who owe it)**.
- **Imprecise inflows**: "trade receivables", "investors" or "loans" alone; revenue, profit and costs are not cash flows.
- **Trade credit misunderstood**: the supplier lets the business pay later; it does not stop supplying.
- **Working capital confused** with profit, starting capital, capital in general or capital spending, or with the costs themselves (it is the funds that pay them). It does not buy a franchise or machinery.
- **One reason given twice**: paying wages and paying suppliers are both day-to-day costs. Listing many expenses is repetition.
- **Defining "opening balance" with "funds" or "capital"**, or reordering the words; and defining terms the question did not ask for.
- **Loose words**: "revenue", "expenditure", "finance" or "money" where the answer needs cash inflows, cash outflows, cash or working capital.
- **Weak application**: ignoring the forecast or appendix figures, or using one case detail for both points.

How to get the marks

- **Define** (2 marks): the full idea. For a cash-flow forecast, both inflows and outflows **and** "estimate of the future"; for working capital, money for **day-to-day costs** or current assets minus current liabilities.
- **Calculate** (1 per value, or 2 with a method mark): show the working; brackets or a minus sign for negatives; units such as \$m when the table is in millions; the right year.
- **Explain, Paper 1 (d)** (6 marks): point (k), case detail (app) and the effect on **cash inflows or outflows** (an). The mark schemes for ways to overcome a problem say the analysis must show the effect on inflow or outflow.
- **Paper 1 (e)** (6 marks): general, so no case details. Two developed points, then a decision that compares them and says **why** (or **when**) one matters more. The June 2025 report says candidates still reach decisions without clear justification: give a reason and say why it beats the alternative.
- **Paper 2 (a)** (8 marks): two points developed in a chain (reason → what happens → consequence), at least one link about the case; or four points with one applied explanation each.
- **Paper 2 (b)** (12 marks): every option, its effect on inflows or outflows, in context; then a choice with a reason from the case and why each other option was rejected.

Quick check

1. A dental clinic expects cash inflows of \$24 000 and cash outflows of \$27 500 in July, and inflows of \$30 000 and outflows of \$26 000 in August. Its opening balance for July is \$6000. Calculate the net cash flow and the closing balance for each month.
2. For a printing business, is each item a cash inflow, a cash outflow, or neither this month? (a) \$2000 received from a customer who bought on credit last month. (b) A \$15 000 bank loan paid into its account. (c) This month's loan repayment. (d) Goods sold this month on 30 days' credit. (e) Dividends paid to shareholders.
3. A shop has inventory of \$20 000, trade receivables of \$18 000 and cash of \$10 000. It owes trade payables of \$26 000 and has an overdraft of \$10 000. (a) Calculate its working capital. (b) It then uses \$6000 of its cash to pay suppliers. What is its working capital now?
4. A business buys goods for \$7000, paying cash, and sells them in the same month for \$10 000 on 60 days' credit. Calculate the profit on these goods and the effect on its cash this month, and explain the difference.
5. A garden-furniture shop's forecast shows negative closing balances in February and March, then large positive ones from April. Explain why an overdraft is more suitable than selling its delivery van to cover the gap.

Answers

1. July: net cash flow = $24\,000 - 27\,500 = -3\,500$, written (3 500); closing balance = $6\,000 - 3\,500 = 2\,500$ dollars. August: opening balance = 2500; net cash flow = $30\,000 - 26\,000 = 4\,000$; closing balance = $2\,500 + 4\,000 = 6\,500$ dollars.
2. (a) Inflow. (b) Inflow. (c) Outflow. (d) Neither this month: the cash arrives next month, when the customer pays. (e) Outflow.
3. (a) Current assets = $20\,000 + 18\,000 + 10\,000 = 48\,000$; current liabilities = $26\,000 + 10\,000 = 36\,000$; working capital = $48\,000 - 36\,000 = 12\,000$ dollars. (b) Current assets fall to $48\,000 - 6\,000 = 42\,000$ and current liabilities to $36\,000 - 6\,000 = 30\,000$, so working capital is still $42\,000 - 30\,000 = 12\,000$ dollars: paying a debt changes the cash, not the working capital.
4. Profit = $10\,000 - 7\,000 = 3\,000$ dollars. Cash this month = $-7\,000$ dollars, because the \$7000 has been paid out but the \$10 000 will not arrive for 60 days. The sale counts in profit when it is made; it counts in cash only when the customer pays.
5. The gap is short-term: it closes in April when summer sales bring cash in. An overdraft covers just the amount needed, with interest only on what is used, and is repaid from April's inflows. Selling the van brings cash in once, but the shop then cannot deliver furniture in its busiest months, losing sales.

Past questions to try

- **0450/13/M/J/23 Q1**: parts (b) to (d), calculating missing values, why managing cash flow matters, and two ways to fix a September shortfall.
- **0450/22/F/M/22 Q4**: part (b), choosing between a bank loan, customer deposits and trade credit to improve cash flow.
- **0450/12/F/M/24 Q3**: part (e), two uses of a cash-flow forecast and which matters most.
- **0450/23/M/J/22 Q4**: part (a), two reasons a sandwich business might have cash-flow problems.