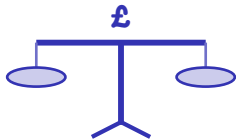


Finance & Accounting

A-Level Business ■ Topic 10

A-Level Business



What we will cover

- 1 Financial statements
- 2 Depreciation
- 3 Profitability ratios
- 4 Liquidity & gearing
- 5 Investment appraisal
- 6 Recap



statements reveal performance



The income statement

Revenue – cost of sales = **gross profit** . Then subtract expenses to get operating profit, then interest and tax to get profit for the year.

It shows performance over a period. The statement of financial position is a snapshot of assets and liabilities on one day.

Reading down an income statement

revenue the value of everything sold in the period

cost of sales the **direct** cost of the goods that were sold

gross profit revenue minus cost of sales

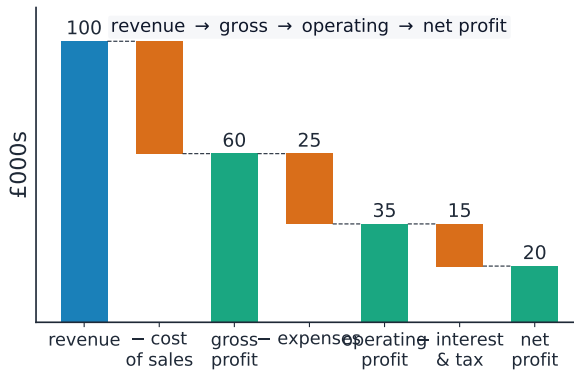
expenses rent, wages, marketing – the indirect costs

operating profit gross profit **after taking off expenses**

profit for the year after interest and tax – what is available to shareholders

Each line answers a different question: gross profit tests the **product**, operating profit the **run-
ning of the business**, and profit for the year the **whole financing structure**.

The income statement, in detail



The income statement steps down from revenue to net profit

Statement of financial position

what it owns

current assets
non-current assets

=

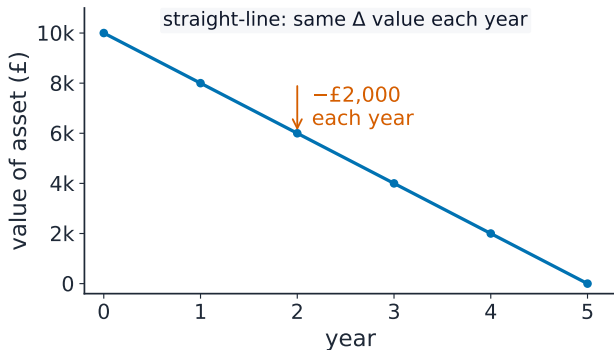
funded by

current liabilities
non-current liabilities
equity (owners)

The **balance sheet** is a photo of what the firm owns and owes on one day.

assets = liabilities + equity – the two sides always **balance**.

Depreciation



Depreciation spreads a non-current asset's cost over the years it is used. A £10,000 machine over 5 years loses £2,000 a year – an expense each year, so profit is not overstated.



Profitability ratios

40%

of revenue

gross profit

$$\text{ROCE} = \frac{\text{op. profit}}{\text{capital employed}} \times 100\%$$

Profitability : how well sales & capital turn into profit.

Worked example

rev £500k, gross £200k, op. £80k, capital £400k

gross margin = 40%; op. margin = 16%; **ROCE** = 20%

The efficiency and gearing ratios, and what ratios cannot do

gross profit margin

gross profit as a percentage of revenue

efficiency ratios

show how well the firm uses its resources – **inventory turnover**, receivable days, payable days

acid test ratio

current assets **minus inventory**, over current liabilities – liquidity without relying on stock selling

gearing

long-term debt as a share of capital employed

high gearing

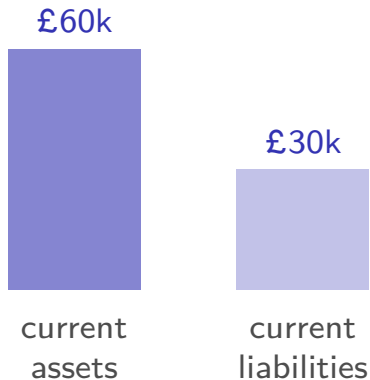
heavy borrowing – risky if interest rates rise, but it **boosts returns** when things go well

ARR

the accounting rate of return – average annual profit as a percentage of the initial investment

Ratios use **past** data, which may not predict the future, and they **ignore non-financial factors** – staff morale, brand, market change. Say so in any evaluation.

Liquidity and gearing



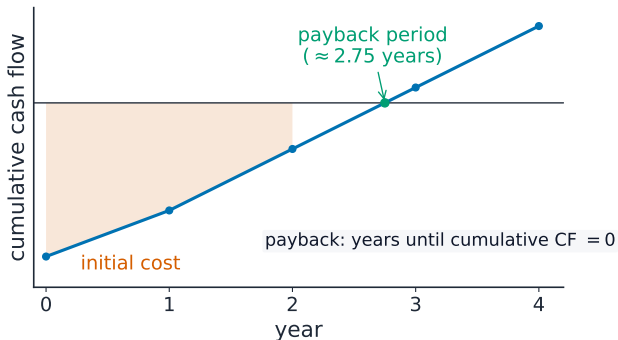
Liquidity – can it pay short-term debts?

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}} = 2.0$$

acid test (drop inventory) = 1.2. **Gearing**
 $= \frac{\text{non-current liabilities}}{\text{capital employed}}$ – high = heavy borrowing.



Payback and ARR



The **payback period** is when cumulative cash flow climbs back to zero – shorter is safer.

$$\text{ARR} = \frac{\text{avg. annual profit}}{\text{initial investment}} \times 100\%$$

ARR : £25k profit on £100k
= 25%.

Finance and accounting strategy

At the top level, managers use financial data and budgets to choose between strategies.

Before a big decision, they ask: can we afford it, how will it affect profit, cash flow and gearing, and what is the likely return?

Net present value and discounting



Discounting shrinks future cash to today's value – £100 next year is worth ~£91 now.

NPV = discounted inflows – initial cost. A **positive NPV** adds value.

Payback, ARR and NPV: what each is good for

payback

how long until the investment is recovered

its strength

simple, and it focuses on risk – a short payback means less exposure

its weakness

it ignores everything after the payback point

ARR

shows **profitability** as a percentage, comparable with other returns

its weakness

it uses profit rather than cash, and ignores the timing of it

NPV

the most complete: it discounts future cash flows to today's value, so timing and the cost of capital both count

Use all three and say where they disagree. A project with a fast payback and a negative NPV is telling you something the payback alone cannot.

Ratio analysis

profitability - profit from sales and capital

$$\text{margins} = \frac{\text{gross or operating profit}}{\text{revenue}} \times 100\%$$

$$\text{ROCE} = \frac{\text{operating profit}}{\text{capital employed}} \times 100\%$$

higher = more profit kept from each sale
and from each dollar invested

liquidity - can it pay short-term debts?

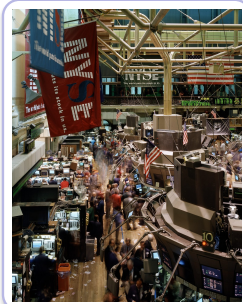
$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$\text{acid test} = \frac{\text{current assets} - \text{inventory}}{\text{current liabilities}}$$

about 1.5–2 is usually safe; the acid test
is stricter - inventory can be slow to sell

The ratio toolbox: profitability and liquidity at a glance

Profitability ratios, continued



Investors use profitability, liquidity and gearing ratios to judge a firm's financial health

Three ratios, and the numbers behind them

Operating profit margin

Operating profit margin = $\frac{\text{operating profit}}{\text{revenue}} \times 100$ – profit from trading, before interest and tax.

Return on capital employed

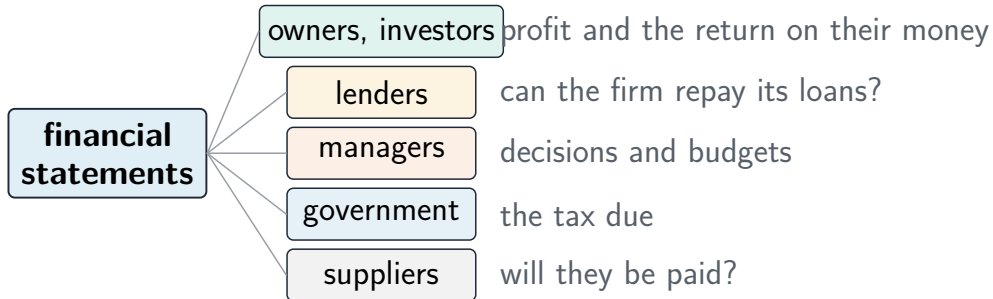
Return on capital employed (ROCE) = $\frac{\text{operating profit}}{\text{capital employed}} \times 100$: the return earned on all the long-term money in the business.

Non-current assets

Non-current assets are the ones kept over a year – property, machinery, vehicles – and they sit above current assets on the statement of financial position.

A margin says how profitable each sale is; ROCE says whether the whole investment was worth making. A firm can be good at one and poor at the other.

How stakeholders use financial statements



Each stakeholder reads the statements for a different reason

Exam tips

- Calculate and interpret the key ratios – **gross/net profit margin, current ratio, gearing, ROCE** – always against a benchmark or a trend.
- For **investment appraisal** know **payback** (time to recover), **ARR** (average % return) and **NPV** (discounted; a positive NPV means accept).
- A **current ratio** of about 1.5–2 is healthy: too high wastes resources, too low risks liquidity problems.
- State the **limitations of ratios** (historical figures, no qualitative factors) in your evaluation.



Topic 10 – key takeaways

1

Statements

income statement & balance sheet

2

Profitability

margins & ROCE measure profit

3

Liquidity

current & acid test; gearing = borrowing

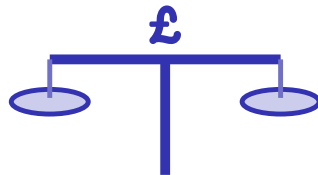
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Appraisal

payback, ARR, NPV judge projects

Check yourself

- 1 Revenue minus cost of sales gives what?
- 2 Assets equal liabilities plus what?
- 3 Acid test drops which current asset?
- 4 A positive NPV means a project does what?



Answers 1. gross profit 2. equity 3. inventory 4. adds value