Your notes

GCSE Business: revision notes

Break-even

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Break-even

- **Break-even** is the level of output at which **total revenue** equals total costs, so there is no profit and no loss.
- **Contribution** per unit = selling price – variable cost per unit. **Break-even** output = **fixed costs** ÷ contribution per unit.
- Example: price £10, variable cost £6 per unit and **fixed costs** £8,000. **Contribution** = £4, so **break-even** output = 8,000 ÷ 4 = 2,000 units. Break-even revenue = 2,000 × £10 = £20,000.

Break-even charts

- The **fixed costs** line is horizontal. The total costs line starts at the level of **fixed costs** and rises. The **total revenue** line starts at zero and rises.
- **Break-even** is where the **total revenue** and total costs lines cross. To the left there is a loss; to the right there is a profit.

Margin of safety

- **Margin of safety** = actual (or planned) output – **break-even** output. If the business in the example sells 2,500 units, its **margin of safety** is 500 units.

Changes and uses

- **Break-even** output falls if the price rises, or if fixed or **variable costs** fall. It rises if costs rise or the price falls.
- **Break-even** analysis helps with planning, setting prices and getting finance. But it assumes all output is sold at one price and that costs don't change.

Key terms

Break-even	The level of output where total revenue equals total costs.

Contribution	Selling price minus variable cost per unit.
Margin of safety	The amount by which output is above the break-even level.
Fixed costs	Costs that don't change with output.
Variable costs	Costs that change with output.
Total revenue	Selling price multiplied by quantity sold.
Break-even chart	A graph showing costs and revenue, and where they cross.

Your notes

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is break-even?
2. What is the formula for contribution per unit?
3. How is break-even output calculated?
4. Price is £10, variable cost is £6 per unit and fixed costs are £8,000. What is the break-even output?
5. What is the margin of safety?
6. A business breaks even at 2,000 units and sells 2,500. What is its margin of safety?
7. What happens to break-even output if fixed costs rise?
8. What happens to break-even output if the selling price rises?

Answers

1. The output where total revenue equals total costs
2. Selling price – variable cost per unit
3. Fixed costs divided by contribution per unit
4. 2,000 units
5. The amount by which sales are above break-even output
6. 500 units
7. It rises
8. It falls

What to do next

Practise 12 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

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