

Finance 2

Financial Statements of a Company

- A private limited company (ltd), a public limited company (plc) and a limited liability partnership must produce two main financial documents annually.
- Auditors must ensure that both documents give a true and fair view of a company's state of affairs.
 1. The trading or profit and loss account
 2. The balance sheet

Financial Statements of a Company

Profit and loss account

This covers a trading period of one year, showing gains and losses over that period and whether the company has made a (loss), or a profit.

Gross profit = turnover - cost of goods sold

Net profit = gross profit - expenses

Turnover		100,000
Cost of goods sold		20,000
Gross profit		80,000
Distribution	20,000	
Salaries	29,000	
Administration	6,000	55,000
Net profit before tax		25,000

Financial Statements of a Company

- Gross profit as a percentage of turnover
 $(80,000/100,000) \times 100 = 80\%$
- Net profit as a percentage of turnover
 $(25,000/100,000) \times 100 = 25\%$

Financial Statements of a Company

Balance sheet

- Whereas the profit and loss account covered a whole year's trading, the balance sheet is a snap-shot of the assets and liabilities of the company at one time period only; usually at the end of the accounting year.

Financial Statements of a Company

FIXED ASSETS		LONG TERM LIABILITIES	
Land & buildings	155,000	Share capital	85,000
Furniture & fittings	20,000	Reserves (savings)	75,000
Plant & equipment	25,000	Debentures (loans)	65,000
	200,000		225,000
CURRENT ASSETS		CURRENT LIABILITIES	
Stock	10,000	Trade creditors	15,000
Debtors	15,000	Tax owed by company	7,000
Bank account	20,000	Overdraft	3,000
Cash in hand	5,000		
	50,000		25,000
GRAND TOTALS	250,000		250,000

Financial Statements of a Company

Fixed assets:

- (tangible) things with a long life that are used for the running of the business, and not for re-sale such as buildings, vehicles, machines, office equipment etc,
- (intangible) intellectual property rights (patents, trademarks, domain names) and goodwill (brand, image).

Financial Statements of a Company

- **Current assets:** things which represent cash or can be changed into cash in a relatively quick time; stock, work in progress, money owed to the company, money in bank and cash.

Financial Statements of a Company

- **Long term liabilities:** money that is owed but which does not have to be paid within the year; long term capital put into the business, share capital, reserves and loans.

Financial Statements of a Company

- **Current liabilities:** money that is owed which does have to be paid within the year; money owed to creditors, suppliers, tax (VAT, PAYE, NI) and the bank (overdraft).

Capital employed

- The total finance used by the company. This is found in two ways.
 - Long term liabilities (£225,000)
 - All assets - current liabilities ($£250,000 - £25,000 = £225,000$)

Return on capital employed (ROC)

- Measures the amount of money being made (net profit) in relation to the capital invested (capital employed) in the business.
 - $(£25,000/£225,000) \times 100 = 11.1\%$
- This can be used to compare other ways of making a profit (or getting interest) from investing capital.
- For example, if an investment account with £225,000 deposited gave an annual gross interest rate of 10%.

Working capital

- Ready money that is available for use.
 - Current assets - current liabilities.
 - £50,000 - £25,000 = £25,000.

Working capital ratio or current ratio

- The ratio of current assets to current liabilities.
 - $£50,000 / £25,000 = 2$
- The current ratio is 2:1, for every pound the company owes in the short term it has two pounds.
- A ratio of 1:1 would mean that the company has only just enough money to cover current liabilities and hence has no effective working capital.
- A ratio of 4:1 would indicate that the company has too much money lying idle; it could be invested in the business or elsewhere.

Liquidity ratio (Acid test ratio)

- This looks at whether a company has enough ready money if all short term money owed was demanded instantly. In this case the stock element of the current assets is not used, as it is not instant money.
 - Current assets - stock. $£50,000 - £10,000 = £40,000$
 - Current liabilities. $£25,000$
 - $£40,000 / £25,000 = 1.6$

Liquidity ratio (Acid test ratio)

- The liquidity ratio is 1.6:1, for every pound the company owes in the short term it has 1.6 pounds.
- A ratio of 0.5:1 would indicate a shortage of ready cash.
- Note that this does not mean that the company is bankrupt.

Legal business structures

- Sole trader (self-employed)
- Partnership (self-employed)
- Limited liability partnership (self-employed)
- Limited liability company (ltd or plc)
- Franchise (self-employed, partnership or company)
- Social enterprise (usually a company)

March 2010: from ONS

Of 2.1 million businesses:

59%	Companies and public corporations
24%	Sole traders
13%	Partnerships
4%	Government & non-profit

Size

- 89% of all enterprises had less than 10 employees
- 98% had less than 50 employees
- The very largest companies (those with 250+ employees) accounted for just 0.4% of all business enterprises

Age

- 14% of businesses were under two years old
- 29% were under four years old
- 44% of businesses were 10 or more years old

Break Even

- All private transport businesses, as with any other type of business, are set up in order for investors to make money. The factors of production for good X;

$$Q_x = f(L_d, L_a, K) \text{ (Land, Labour and Capital)}$$

Break Even

- All private transport businesses, as with any other type of business, are set up in order for investors to make money. The factors of production for good X;

$$Q_x = f(L_d, L_a, K) \quad (\text{Land, Labour and Capital})$$

Also, **enterprise**, which is the organisation of these factors: decide what to produce, how, when, where, how much to produce etc. This process involves **risk**, in that the decision is made to produce goods or services before any goods or services are sold. In setting up and running a business there are usually **costs incurred before revenue** is received.

Break Even

- This process involves **risk**, in that the decision is made to produce goods or services before any goods or services are sold.
- In setting up and running a business there are usually **costs incurred before revenue** is received.

Break Even

- We normally identify two key types of costs: fixed or standing and variable or running.
 - Fixed costs are usually a function of time; the costs are incurred whether or not an item is used.
 - Variable costs are those incurred by actually using an item.
- There are a variety of ways in which to measure 'use' (seat occupancy, tonnes lifted, people moved, distance etc.).

Break Even

- To combine fixed and variable costs a common unit must be used.
 - If fixed costs are £40,000 per annum and annual distance is 50,000 km then fixed cost per km are $\text{£}40,000/50,000 = \text{£}0.80$ per km.
 - This figure can then be added to the variable cost per km.

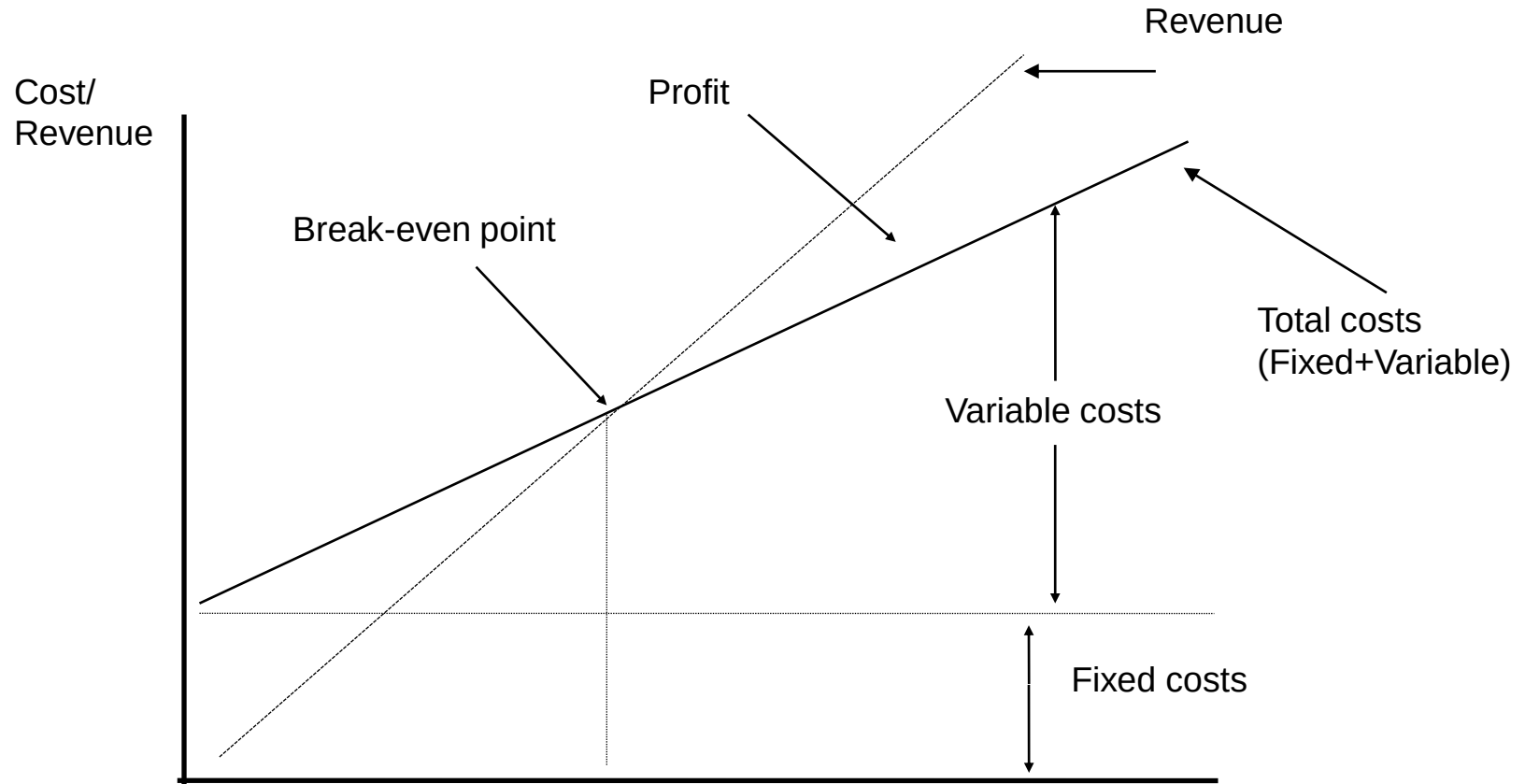
Break Even

- Note if distance travelled increases, the calculated fixed costs per km will decrease, but total fixed costs will remain constant.
- If distance travelled increases variable costs per km will remain constant but total variable costs will increase.

Break Even

- An operator or investor wants to make a profit and will also want to know at which point **revenue equals costs - the break-even point.**
- In the diagram below annual distance is used as the measure of output.

Break Even



Example of cost functions that intersect

- The fare (P) for a taxi ride is $10p + 8d$. The fare (P) for car hire is $330p + 4d$.
- Note that the first element in each equation is a constant, so it is like a fixed cost.
- The second element (d) is variable. Assume d is distance travelled: a variable cost based on kilometres.

Example of cost functions that intersect

At what distance is the taxi the cheaper form of travel?

Construct the equations and make them equal to each other, as with the break-even point equations.

$$\text{Taxi} = 10 + 8d$$

$$\text{Car} = 330 + 4d$$

	$330 + 4d =$	$10 + 8d$	
Add -10 to each side	$330 - 10 + 4d$	$=$	$10 - 10 + 8d$
	$320 + 4d =$	$8d$	
Add -4d to each side	$320 + 4d - 4d =$	$8d - 4d$	
	$320 =$	$4d$	
	$80 =$	d	

At a distance of 80 km the taxi and car hire are equal. Up to 80 km taxi is cheapest, whereas after 80 km car hire is cheapest.

Break Even

Calculate the break-even point based on the following figures.

Annual distance 40,000 km

Fixed costs £30,000

Variable costs £0.50

Profit target 15 per cent

How To.....

- We need two equations: one for revenue and one for total costs, both of which are based on distance travelled. The solution to the equations will be to find the distance at which revenue = total costs, the break-even point (BEP).

How To.....

- The total cost equation (TC) will be:
 - $\text{fixed costs} + (\text{variable cost} \times \text{distance } (d))$.
- The revenue equation (REV) will be:
 - $\text{total cost plus profit margin (calculated on variable cost only)} \times \text{distance } (d)$.

Total Cost

Fixed Cost - £30,000

Variable cost - $40,000\text{km} \times £0.50 = £20,000$

Total Cost - $£30,000 + £20,000 = £50,000$

Revenue

Total Cost - $£30,000 + £20,000 = £50,000$

Profit Margin - $£50,000 * 15\% = £7,500$

Revenue - $£57,500 / 40,000 \text{ km} = 1.4375$

Break Even

$$1.4375d = 0.5d + 30,000$$

$$0.9375d = 30,000$$

$$d = 30,000/0.9375$$

$$d = 32,000 \text{ km}$$

Groupwork

Construct an equation to calculate the break-even point based on the following figures.

Annual distance 40,000 km

Fixed costs £20,000

Variable costs £0.40

Profit target 20 per cent

Total Cost

Fixed Cost - £20,000

Variable cost - $40,000\text{km} \times £0.40 = £16,000$

Total Cost - $£20,000 + £16,000 = £36,000$

Revenue

Total Cost - £36,000

Profit Margin - $£36,000 * 20\% = £7,200$

Revenue - $£43,200 / 40,000 \text{ km} = 1.08$

Break Even

$$1.08d = 0.4d + 20,000$$

$$0.68d = 20,000$$

$$d = 20,000/0.68$$

$$d = 29,412 \text{ km}$$