Chapter 10

Total Absorption and Marginal Costing

How do I calculate the cost of producing one unit of output?

To find out how much something costs, we simply add up the costs of everything used to make it. But this simple approach works only when all the costs are variable or direct. A variable cost (or direct production cost) is one that increases as production increases.

For example, to make more cakes, more raw materials (flour, eggs and milk) are required. However, you would not need another oven or other equipment – which are fixed costs (indirect production costs or production overheads), which are costs that do not vary with output.

Variable costs	Increase as production increases, e.g. raw materials
Fixed costs	Do not increase with output, e.g. machinery

How is the cost of the oven accounted for? This cost is spread across all the cakes produced.

Total Absorption Costing

Fixed costs are absorbed by the firm's output – so, a small proportion of these indirect production costs is allocated to each unit produced.

This is total absorption costing - used by accountants in audited financial statements, as required by accounting standards.

Total absorption costing –
allocates a proportion of fixed costs to each unit produced.

When setting out its budget for the period, the business will estimate its fixed costs, and will plan how many units it will produce. This will allow it to allocate fixed costs to this period, and to calculate the rate at which it absorbs fixed costs per unit, with the equation fixed costs, divided by the number of units produced.

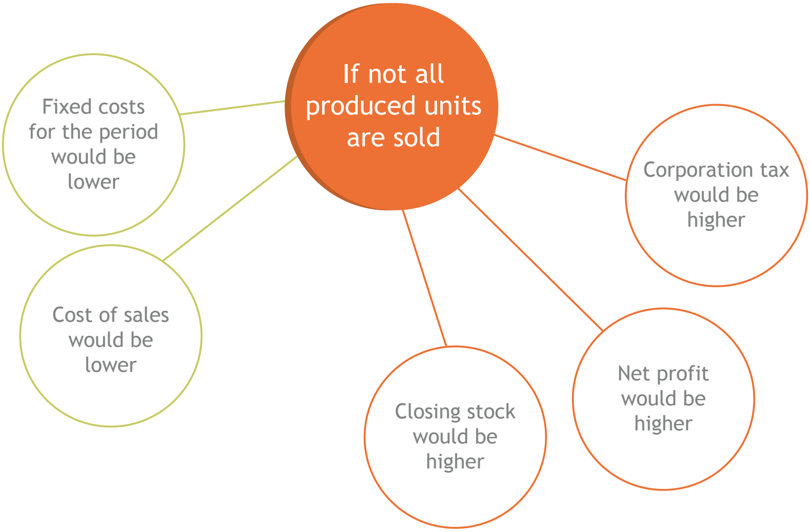
Fixed Costs Per Unit = **Fixed Costs** / **Number Of Units Produced**

Remember that a business may not manage to sell all the units it produces – some of these units may remain, adding to stock levels. Therefore, not all the fixed costs that the firm has incurred end up as production costs for this period.

In that case, the cost of sales would be lower, while the value of the closing stock that remains for the next trading period is higher. As a result, the firm will report a higher net profit figure - and pay more corporation tax. Clearly, the business would prefer to treat all its fixed costs as production costs for this period, in order to pay less tax.

A drawback to total absorption costing is that any inaccuracies in estimating fixed costs or outputs mean that the business has absorbed too few or too many fixed costs. Its accounts must then be adjusted for under- or over-absorption.

Under-absorption and over-absorption complicate
the accounting process.



Marginal Cost

Unless reporting to external accounting standards, management accountants within the firm will use marginal costing to make decisions.

Marginal cost refers to the additional cost of producing an extra unit of output. Therefore, it considers only the extra variable costs to pay when production increases.

Marginal cost – the cost of producing an extra unit of output

Marginal costing allocates fixed costs to the period they were incurred. This means ignoring any fixed costs already paid (for example, the cost of an oven last year), because they are no longer relevant to production this year. To make one more cake, we do not need to pay any more for the actual oven, so why account for the cost of the oven?

Marginal costing – allocates the fixed costs in full to the period in which they were incurred, allowing decision-makers to focus on only the relevant variable costs and to ignore fixed costs

An example to illustrate how marginal costing works:

	£
Unit selling price	10
Unit variable cost	(3)
Contribution per unit	7
Sales volume	1 000 000
Total contribution	7 000 000
Fixed costs	(4 000 000)
Profit	3 000 000

A business might sell its cakes for £10 each. From this, it must subtract the variable or marginal cost of each cake: £3. This leaves it with a contribution per unit of £7.

This means that after paying its variable costs, the business is left with £7 from each cake it sells, which can contribute towards its fixed costs. Once fixed costs have been paid, the contribution will add to the firm's profit.

Contribution pays towards fixed costs and profit

	£
Contribution per unit	7
Sales volume	1 000 000
Total contribution	7 000 000

If the business sells 1m cakes, its total contribution would be £7m.

Subtracting its fixed costs of £4m would leave it with a profit of £3m.

	£
Total contribution	7 000 000
Fixed costs	(4 000 000)
Profit	3 000 000

Marginal costing does not rely on estimates, so there is no under- or over-absorption, making the accounting process much simpler.

No under-absorption or over-absorption – simple accounting process.