3.3 Costs and revenues

Types of costs

Anything a business spends money on is a cost. There are endless things that businesses need to buy in order to produce goods and services. These range from large capital expenditures, such as buying land for a new factory, to everyday expenditures, such as purchasing fuel for delivery vehicles. These everyday expenditures are known as revenue expenditures.

Figure 1. Anything that a business spends money on is defined as a cost; a cost for this business would be the rice needed to make these rice noodles.

Credit: Longhua Liao, Getty Images

Generally speaking, businesses work to reduce their costs of production. Lower costs can lead to higher profits for the business, helping to sustain the activities of the business over time. It is important to understand, however, that for-profit social enterprises and non-profit social enterprises may differ from for-profit commercial enterprises with regard to their approach to costs. Social enterprises may distribute value to a wider range of stakeholders by paying workers a living or generous wage, by paying suppliers fairly for resources (rather than using their power to force lower prices for resources), and by finding ways to foster healthy social ecosystems around themselves through generative/regenerative activities (Section 1.5.6

(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/generativeregenerative-business-id-36546)). All of these practices may involve higher costs for social enterprises.

This section will classify business costs into simple groups. Classifying costs can help businesses identify and track costs more easily, which should help reduce them. Costs can be classified into two broad sets of categories:

- fixed costs and variable costs
- direct costs and indirect costs/overheads

Fixed and variable costs

Figure 2. A coffee shop has both fixed and variable costs.

Credit: Yagi-Studio, Getty Images

The first method of classifying costs simply asks the question: 'Does the cost increase directly with production?' If the answer is yes, then the cost is a variable cost. If the answer is no, then the cost is a fixed cost.

The example of a simple coffee shop is used below to explore the differences between fixed and variable costs.

Variable costs

As mentioned above, variable costs vary directly with production. If a coffee shop sells one more cup of coffee, which costs will increase? Well, to start with, all of the things that go into the drink. So variable costs will include the coffee beans, the milk and any sugar or additional flavourings. But that is not all. If the shop sells one more cup of coffee, it will also have to buy one more paper cup. So packaging is also a variable cost.

Figure 3. Types of variable costs.

The types of variable costs will depend on the business, but will normally include things such as:

- materials
- packaging
- delivery
- piece-rate wages and sales commission (Subtopic 2.4 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39054))
- cleaning (hotels, for example)

The fact that variable costs are defined as varying *directly* with production should not be overlooked. A variable cost is defined by its cause-and-effect relationship with output. Some students make the mistake of classifying advertising as a variable cost, arguing that if advertising increases then so does output. This is incorrect because the relationship is the wrong way around. When there is an increase in advertising costs, there is no guarantee that demand and therefore output will rise. To be a truly variable cost, an increase in output must lead to increased costs of production for the business. So, if there is no production, the variable costs must be zero.

Sometimes, but not always, payments to workers are considered variable costs too. For example, some workers are paid piece-rate wages, which are wages that vary depending on the amount the employee produces. Other employees may be paid commission. Commission is when sales employees are paid a small amount, often a percentage, for every item they sell. For example, employees in a clothing store may receive an additional payment every time they sell a customer an item of clothing.

Exam tip

It is important to make a distinction between the terms 'variable costs per unit' and 'total variable costs'. Variable costs per unit are the variable costs of making one product. Total variable costs are the sum of all variable costs for the entire output.

Graphing variable costs

Variable costs (VC) can be graphed using data on quantities of cups of coffee produced and the total variable costs at different quantities. For example, assume it costs $1 to make a single cup of coffee. The total variable costs can be calculated at different quantities, as shown in **Table 1**.

Table 1. Total variable costs at different levels of quantities produced (output).

Quantity of cups of coffee per month (output)	Total variable costs ($)
0	(0 x 1) = 0
500	(500 x 1) = 500
1000	(1000 x 1) = 1000

Quantity of cups of coffee per month (output)	Total variable costs ($)
1500	(1500 x 1) = 1500
2000	(2000 x 1) = 2000
2500	(2500 x 1) = 2500
3000	(3000 x 1) = 3000

These values can be plotted in a graph (**Figure 4**) where the quantity of cups of coffee is represented in the *x*-axis and sales revenues are represented in the *y*-axis. As you can see, as quantity/output increases, the total variable cost of production (TVC) increases.

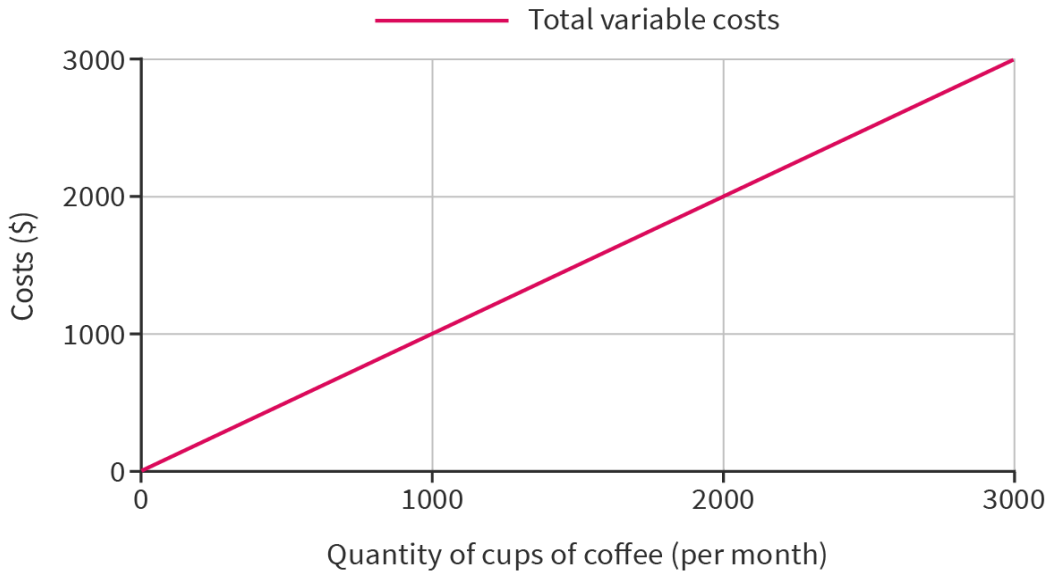

Figure 4. Total variable costs increase as the quantity of cups of coffee increases.

Fixed costs

Fixed costs (FC) are those that stay the same at different levels of output. In the short term (the period during which it is difficult to change resources), there are items that need to be paid for no matter the level of output. These will not change quickly over

time. For example, rental contracts for a physical space are usually for a set period of time, such as a year or more. This will stay the same, regardless of how much the business produces.

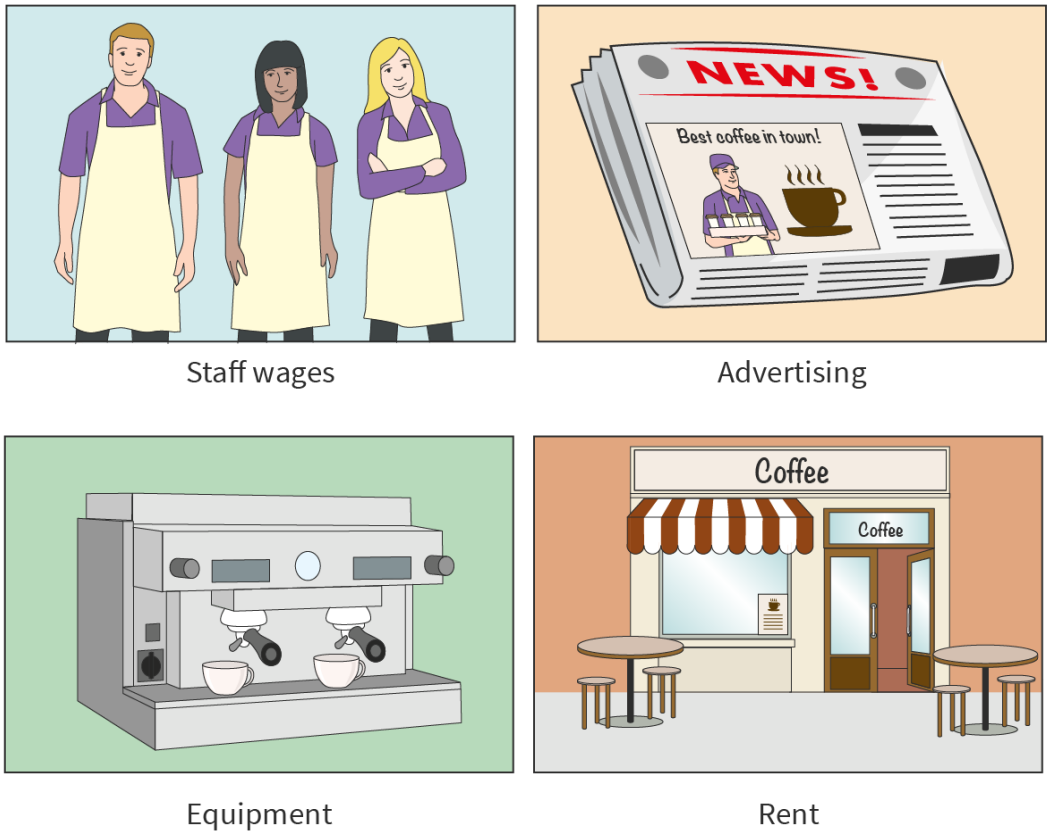

Figure 5. Types of fixed costs.

Consider the coffee shop once more. The variable costs include all the things that go directly into a drink, as well as the packaging. But ingredients alone are not enough to make a hot cup of coffee. Other things are needed too, such as a coffee machine, a place where customers can sit and drink the coffee, and someone to make the coffee and receive the payment from the customers.

These are examples of fixed costs:

- salaries and wages of staff that are not dependent on output
- rent and mortgage payments
- machines and other capital equipment
- fixtures and fittings
- insurance

Exam tip

Whether employee payment is counted as fixed or variable depends on the payment methods.

As you learned in Subtopic 2.4 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39054), salary and wages are two different types of financial rewards. Salary is a payment for work over a period of time that is not directly related to the number of hours put into the work. Salaries are usually for a year of work and are paid in 12 equal instalments. These are considered fixed costs.

A wage is also a payment for work, but is usually paid per hour, or per piece. Wage payments could be monthly, or they may be more irregular. Wages can be fixed or variable, depending on whether they are paid in relation to output.

Graphing fixed costs

Fixed costs can also be displayed in a graph. Using the example of the coffee shop again, assume that the salaries and wages of staff are $5500 per month, the rent is $1000 per month, and insurance, leasing of equipment, and other miscellaneous fixed costs are $500 per month. This means that the total fixed costs are $7000 per month. These fixed costs will be the same, regardless of whether the coffee shop produces zero cups of coffee or 3000 cups of coffee. The data in **Table 2** shows this. **Figure 6** shows a graph of both the fixed and variable costs.

Table 2. Fixed costs for the coffee shop.

Quantity of cups of coffee per month	Fixed costs ($)
0	7000
500	7000
1000	7000
1500	7000
2000	7000

Quantity of cups of coffee per month	Fixed costs ($)
2500	7000
3000	7000

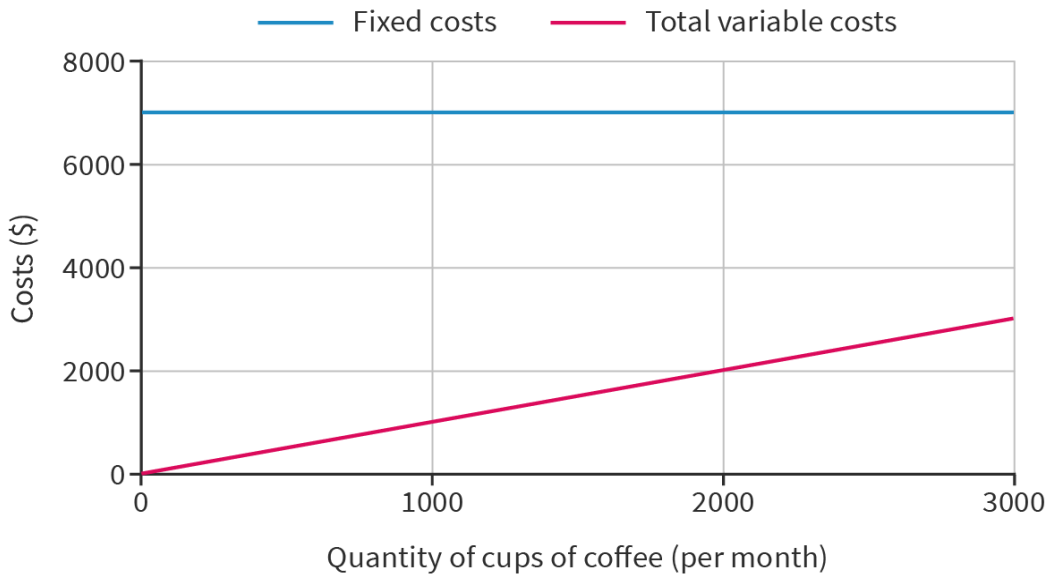

Figure 6. Fixed costs stay constant as the quantity of cups of coffee increases.

Figure 6 shows the fixed costs staying constant as the quantity/output of cups of coffee increases. You can see that this differs from total variable costs, which increase as quantity/output increases.

Exam tip

Remember to consider the same timeframe for both variable and fixed costs. The data above shows quantity and costs for one month. But the data could be expressed with other time periods. You will need to indicate the time frame in the graph title and axes.

Total costs

Total costs (TC) refer to all the variable costs and fixed costs that a business pays to produce its product.

For the coffee shop, variable costs per month and fixed costs per month can be put together. The addition of both costs will give the total costs per month, as shown in **Table 3**. **Figure 7** illustrates these costs in a graph, along with the variable and fixed costs.

Table 3. Total costs are the sum of fixed and variable costs.

Quantity of cups of coffee	Variable costs ($)	Fixed costs ($)	Total costs ($)
0	0	7000	7000
500	500	7000	7500
1000	1000	7000	8000
1500	1500	7000	8500
2000	2000	7000	9000
2500	2500	7000	9500
3000	3000	7000	10000

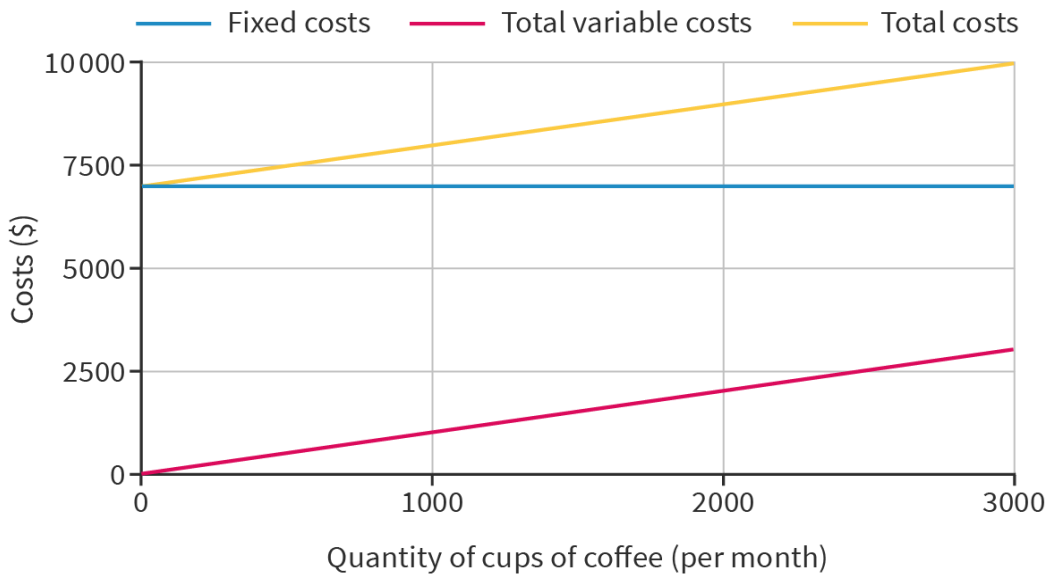

Figure 7. Total costs are the sum of variable costs and fixed costs.

Exam tip

Fixed costs do not start at zero. This is because, even if a business produces no output, it will have to pay for rent, equipment and other fixed costs. Total costs include both fixed and variable costs. So the minimum total costs, at zero output, would start at the fixed cost line, as shown in **Figure 7**.

Activity

Below is a partly completed table of the fixed, variable and total costs of the Casual T-shirt Company at different quantities/output per month.

Output (T-shirts)	Fixed costs ($)	Variable costs ($) ($9 per T-shirt)	Total costs ($)
0			
500	5000		
1000		9000	
1500			
2000			23 000

- Copy and complete the table, using the figures provided to work out the missing costs.
- Use the data in your completed table to draw a graph showing the relationships between the quantity/output of T-shirts and the fixed, variable and total costs of production.

Semi-variable costs

Some costs could be seen as having both variable and fixed elements. Electricity is a good example. In the coffee shop example, a small amount of extra electricity would be needed to power the espresso machine and make an additional cup of coffee. This is obviously a variable cost. However, electricity will also be used to power the lights and keep the fridges cool, and these do not vary with output. If more customers come into a shop, they do not consume more light. This element of the electricity bill is therefore fixed. For this reason, electricity is classified as a semi-variable cost. Other examples of semi-variable costs include:

- mobile phone bills that incur a monthly fixed fee plus a charge for any additional units that are used
- production staff who are paid a basic salary plus a bonus for any additional output

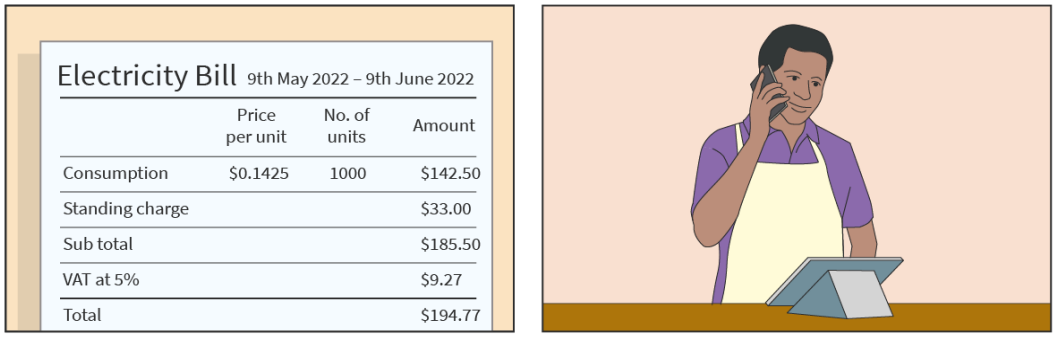

Figure 8. Some examples of semi-variable costs.

Direct and indirect costs

This method of classifying costs relates to the parts of the business that deal with budgets. Some costs relate directly to the sale of the goods, while some relate to other parts of the business. Complex businesses will have a huge number of costs. In order for these costs to be tracked, they need to be allocated to the correct department.

Figure 9. National chains have both direct and indirect costs.

Credit: AerialPerspective Images, Getty Images

Take the example of a nationwide clothing retailer that has branches in 15 different cities as well as a head office, which deals with things like marketing and operations. Each store will have direct costs associated with it. This will include the wages of people who work in that store, the goods they sell and the electricity to keep the shop lights on.

This is simple enough, but what about the wages of the marketing staff working at the head office? And the CEO's salary? How should they be allocated? As these relate to all stores and not just one, they are referred to as indirect costs/overheads. These costs are not directly related to sales of the goods in the 15 retail locations either.

Direct costs

Large companies may divide themselves into sections so they can keep track of what is being spent in the business. Each section will have a budget attached to it and must take care to stay within those allocated amounts.

Direct costs are those that can only be attributed to a single part of the business – that is, directly linked to the sale of the goods or the provision of the service. Examples include:

- staffing cost of employees in that particular section of the business

- utility costs of a single branch of a chain store
- material costs for a product line
- running costs of a single store to be allocated to the correct department

Figure 10. Types of direct costs.

Indirect costs

Indirect costs are more difficult to allocate than direct costs. Using the example of the clothing retailer, all costs from the head office would be referred to as an indirect cost for the 15 retail branches. The activities carried out in the head office affect all the branches, so it makes sense to split the costs of the head office between the branches.

Indirect costs are different in different companies, but examples may include:

- nationwide advertising campaigns
- accountancy and auditors' fees
- salaries of the board of directors
- expenses of running a central human resources department

- ICT and infrastructure costs

The head office.
Credit: Liyao Xie, Getty Images

National advertising campaign.
Credit: Jorge Juan Perez / EyeEm, Getty Images

Board members' salaries.
Credit: AzmanL, Getty Images

ICT and infrastructure costs.
Credit: Tom Sibley, Getty Images

Figure 11. Types of indirect costs.

Theory of Knowledge

Businesses such as call centres or restaurants often have a high rate of labour turnover (Subtopic 2.4 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39054)). Any workers that leave need to be replaced using a recruitment and selection process. This recruiting process and training of new employees will cost the business money.

This situation causes a great deal of uncertainty for a business. You might ask whether it is possible to really know all the costs of a business. How might a business deal with this lack of knowledge about important costs for its operations?

Case study

As a result of the COVID-19 pandemic, remote working has brought benefits to some employees, such as better work–life balance and a reduction in commuting time.

Companies have also benefited from remote working. Some have been able to reduce fixed costs, such as the renting of office space or the provision of coffees and snacks for employees. Others, such as Facebook/Meta and Stripe, have been able to cut costs by offering employees the ability to work remotely and thus relocate to less expensive areas, in exchange for a cut in pay.

Finally, some businesses have been able to hire workers from different regions. This wider labour supply can lead to lower costs for labour, both from salary payments and social security taxes.

1. Define fixed costs. [2 marks]
2. Explain how remote working can reduce fixed costs. [2 marks]