

**OCR GCSE Business Studies**

**Unit 3: Production, Finance  
& External Business  
Environment**

**Course Companion**



**Essential study notes to support your OCR GCSE  
Business Studies Unit 3 Course**



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# Section1 Production

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## Topic overview

The specification requires you to:

- Demonstrate an understanding of job, batch, process and flow methods of production
- Analyse and discuss reasons for choice
- Analyse and discuss the importance of adding value in a dynamic competitive environment
- Analyse and discuss methods of increasing the efficiency of production
- Calculate, explain and interpret fixed, variable, average and total costs
- Analyse and discuss the importance of size of business and scale of production - economies and diseconomies of scale
- Discuss ways in which business may respond to changing external costs
- Calculate, plot and interpret break-even
- Evaluate break-even as a decision-making tool

# Methods of Production

## Introduction

There are a variety of methods that can be used by a small business to make and/or deliver the goods and services it provides to a market. In this section we look at the four main methods.

## Job production

Job production involves making one-off or small number of items. These are normally made to customer's specification, ranging from the simple (e.g. a haircut), to the moderately difficult (e.g. a wedding cake) and finally to something long and complex (e.g. building a new football stadium). Job production methods are often undertaken used by small businesses, particularly those operating in the service sector.

The main advantages and disadvantages of using job production include:

Advantages	Disadvantages
Product usually high quality	Cost of producing one unit or job is higher
Producer meets individual customer needs	Labour –intensive
Greater job satisfaction – involved in all stages of production	Requires investment in skills and training

## Batch production

Batch production occurs when many similar items are produced together. Each batch goes through one stage of the production process before moving onto next stage. Good examples include:

- Cricket bat manufacture
- Baking / meal preparation
- Clothing production

The benefits and drawbacks of batch production include:

Advantages	Disadvantages
Making in batches reduces unit costs	Time lost switching between batches – machinery may need to be reset
Can still address specific customer needs (e.g. size, weight, style)	Need to keep stocks of raw materials. Cash also investment in work-in-progress
Use of specialist machinery & skills can increase output and productivity	Potentially de-motivating for staff

## Process production

Process production involves a series of processes which raw materials go through. The end result is a large quantity of finished product. Process production tends to be quite capital intensive (i.e. requiring significant investment in production machinery and facilities).

Examples include:

- Oil refining
- Cement

The advantages and disadvantages of using process production include:

Advantages	Disadvantages
Processes can normally be automated which reduces unit costs	Heavy investment required in process design and production equipment / facilities
Large quantities can be produced	Difficult and disruptive if the production process has to be stopped
Ideal for products which have to be of a consistent quality	Little opportunity to make different versions of the product

## Flow production

Flow production involves using an assembly or production line. Product moves continuously through each production process. When one task is finished next task must start immediately. Car manufacturing is a good example.

The benefits and drawbacks of flow production include:

Advantages	Disadvantages
Ideal for large-scale production of mass-market products	Expensive set up
Cost per unit is low	Large stocks may be needed unless lean production (e.g. JIT) is used
Can still use computer-programmed machinery to create personalised products	Jobs can be repetitive and boring

## Adding Value during Production

### What is added value?

Adding value sounds like a bit of business jargon – and it is! However, it also has quite a precise meaning which is important. So it is worth learning this:

**Adding value = the difference between the price of the finished product/service and the cost of the inputs involved in making it**

**Added value** is equivalent to the **increase in value** that a business creates by undertaking the production process.

It is quite easy to think of some examples of how a production process can **add value**.

Consider the examples of new cars rolling down the production line being assembled by robots. The final, completed and shiny new car that comes off the production line has a value (price) that is more than the cost of the sum of the parts. Value has been added. Exactly how much is determined by the price that a customer pays.

Alternatively, imagine a celebrity chef preparing a meal at his luxury restaurant. Once the cooking is complete, the meal is being served and sold for a high price, substantially more than the cost of buying the ingredients. Value has been added.

You don't have to use robots or have the culinary skills of Gordon Ramsay to "add value". For example, businesses can add value by:

- **Building a brand** – a reputation for quality, value etc that customers are prepared to pay for. Nike trainers sell for much more than Hi-tec, even though the production costs per pair are probably pretty similar!
- **Delivering excellent service** – high quality, attentive personal service can make the difference between achieving a high price or a medium one
- **Product features and benefits** – for example, additional functionality in different versions of software can enable a software seller to charge higher prices; different models of motor vehicles are designed to achieve the same effect.
- **Offering convenience** – customers will often pay a little more for a product that they can have straightaway, or which saves them time.

A business that successfully adds value should find that it is able to operate profitably. Why? Remember the definition of adding value: where the selling price is greater than the costs of making the product.

By definition, a business that is adding substantial value must also be operating profitably.

Finding ways to add value is a really important activity for a start-up or small business. Quite simply, it can make the difference between survival and failure; between profit and loss.

The **key benefits to a business of adding value** include:

- Charging a **higher price**
- Creating a **point of difference** from the competition

- **Protecting** from competitors trying to steal customers by charging lower prices
- **Focusing** a business more closely on its target market segment

## An example of added value



Consider what happens to the ingredients in a packet of Tyrrells Crisps.

Actually, Tyrrells call their crisps “potato chips”. According to their website:

*“We grow our own potatoes and turn them into great tasting, crunchy potato chips. We're in control from 'seed to chip', and that's what makes our chips deliciously unique.”*

The main ingredient for a packet of potato chips is, unsurprisingly, potatoes.

So, how much **added value** is created by the production process, turning potatoes into crisps (sorry, chips)?

It is time to do some maths! We'll try to keep it simple!

Potatoes are sold by farmers at around £125 per metric tonne. That's 1,000 kg of potatoes, which equals around 12.5 pence per kilogramme.

What about a packet of Tyrrells crisps? The typical 50g grab bag of Tyrrells costs the retailer around 50 pence to buy (the consumer then pays about £1 per packet).

If there are 50 grams of potato in a bag, then the sales value of 1kg of Tyrrells crisps would be approximately :  $50 \times 20 \times £0.50 = £500$

So, for each tonne of potatoes, Tyrrells is turning something that they could sell for £125 into something they sell for £500.

The difference between £500 and £125 is not quite the total added value. Tyrrells has to take account of the other production costs (e.g. labour, energy, and other ingredients).

However, you can see how the production process of turning the humble potato into bags of premium-priced crisps is a good example of a business that is “adding value”.

# Productivity & Efficiency

## Introduction

In this section we look at two important concepts:

- Managing the production capacity of a small business (how much it can make or how many customers it can serve)
- Production efficiency – how well the business makes use of its assets and people

## Managing capacity

Capacity can be defined as:

**The maximum output that a business can produce in a given period with the available resources**

Capacity is usually measured in production units (e.g. 1,000 cars per month, or 500 customers served per day). It is unusual for a business to use all its capacity all of the time.

The proportion of capacity that a business uses is known as capacity utilisation, and it is an important measure of how efficiently a business is operating.

When a business is operating at less than 100% capacity, it is said to have “**spare capacity**”.

Sometimes spare capacity is not the problem – a business finds itself with **excess demand** (i.e. it cannot produce enough to meet demand). In such circumstances, what can it do to operate at higher than 100% normal capacity? It can often:

- Increase workforce hours (e.g. extra shifts; encourage overtime; employ temporary staff)
- Sub-contract some production activities (e.g. assembly of components)
- Reduce time spent maintaining production equipment

However, there are some potential pitfalls with operating at very high capacity (i.e. around 100%):

- **Negative effect on quality** (possibly)
  - Production is rushed
  - Less time for quality control
- **Employees suffer**
  - Added workloads & stress
  - De-motivating if sustained for too long
- **Loss of sales**
  - Less able to meet sudden or unexpected increases in demand
  - Production equipment may require repair

## Productivity and efficiency

It is important that every business makes effective use of its assets. The investment in production capacity is often significant. Think about how much it costs to set up a factory; the production line with all its machinery and technology, or to set up and operate a call centre. Another good way to look at how efficiently a business operates is to look at “**productivity**”.

Productivity measures the relationship between **inputs** into the production process and the resultant **outputs**. Productivity can be measured in several ways: e.g.

- Output per worker or hour of labour
- Output per hour / day / week
- Output per machine
- Unit costs (total costs divided by total output)

The unit cost measure is particularly important. A falling ratio would indicate that efficiency was improving.

Why is achieving high productivity important?

- Most importantly, a more efficient business will produce lower cost goods than competitors. That means the business can either make a higher profit per unit sold (assuming that the product is sold for the same price as a competitor) or the business can offer customers a lower price than competitors (and still make a good profit/
- Investing in production assets (e.g. equipment, factory buildings) is expensive – a business needs to maximise the return it makes on these assets

There are various ways in which a business can try to improve its productivity:

- Training – e.g. on-the-job training that allows an employee to improve skills required to work more productively
- Improved motivation – more motivated employees tend to produce greater output for the same effort than de-motivated ones
- More or better capital equipment (this links with the topic of automation)
- Better quality raw materials (reduces amount of time wasted on rejected products)
- Improved organisation of production – e.g. less wastage

# Production Costs

## What are costs?

Costs are the **amounts that a business incurs in order to make goods and provide services**. Every business incurs costs, but they vary in terms of their type and amount.

A good starting point is to consider the difference between the two main types or categories of cost, namely:

- **Fixed costs** – costs which do not vary with output
- **Variable costs** – costs which change as output changes

## Fixed costs

**Fixed costs do not change as output varies.** In other words, they are fixed even if output moves up or down from period to period.

Examples of fixed costs include:

- Rent & council tax
- Wages and salaries
- Marketing (advertising, market research)
- Insurance, banking & legal fees
- Software
- Consultant and adviser costs
- Design and development
- Heating, light and other energy costs
- Leased equipment charges

**Note – just because a cost is classified as “fixed”, that does not mean that the cost will stay the same.**

For example, the rental of an office or shop will be paid to the landlord. The rent stays the same for a specific period (e.g. 5 years). However, the rent may change (up or down) when the rental agreement is renegotiated when due.

The important point about a cost like rent being “fixed” is that it **has to be paid**, whatever the level of sales achieved.

Fixed costs are particularly important when it comes to calculating the **break-even output** of a business. A business needs to generate enough **contribution** (a kind of profit) to cover its fixed costs in order for it to break-even.

The higher the level of fixed costs in a business, the higher must be the achieved output in order to break-even.

As a result, a good strategy for most start-ups is to focus on controlling and minimising fixed costs.



## Variable costs

Costs which change when output changes are called “**variable costs**”

Variable costs tend to be those relating directly to the production or sale of a product. Good examples include:

- Raw materials & bought-in stocks and components
- Wages based on hours worked or amount produced
- Marketing costs based on sales (e.g. % discounts offered on a sales price)
- Agent and other commissions

Total variable costs can be calculated by a simple formula:

$$\text{Variable cost per unit} \times \text{output}$$

## Total costs

The total costs of a business can be calculated by simply adding together the variable costs at different levels of output to fixed costs.

**Total costs (TC) = Fixed costs (FC) + variable costs (VC)**

Let’s look at an example: Graham’s van repair business has the following costs and sales output for March:

Variable costs per job	£75
Garage rent & rates	£500
Wages	£1,500
Advertising	£100
Other fixed costs	£400
Expected number of jobs for month	100

What are the total costs for March?

Start with the variable costs, which equal £75 x 100 (i.e. VC per job times the number of jobs) = £7,500

Fixed costs total £2,500 (i.e. £500 + £1,500 + £100 + £400)

So total costs are £10,000 (i.e. VC + FC or £7,500 + £2,500)



# Economies & Diseconomies of Scale

## Economies of scale

Consider the following questions:

- Why can you now buy a high-performance laptop for just a few hundred pounds when a similar computer might have cost you over £2,000 just a few years ago?
- Why is the average price of digital cameras falling all the time whilst the functions and performance level are always on the rise?
- How can IKEA profitably sell flat-pack furniture at what seem impossibly low prices?

The answer is – **economies of scale**. Scale economies have brought down the unit costs of production and have fed through to lower prices for consumers.

Economies of scale are a key advantage for a business that is able to grow.

Most firms find that, as their production output increases, they can achieve lower costs per unit.

Economies of scale are the **cost advantages** that a business can exploit by **expanding their scale of production**. The effect of economies of scale is to reduce the average (unit) costs of production.

Here are some examples of how economies of scale work:

### Technical economies of scale:

Large-scale businesses can afford to invest in expensive and specialist capital machinery. For example, a supermarket chain such as Tesco or Sainsbury's can invest in technology that improves stock control. It might not, however, be viable or cost-efficient for a small corner shop to buy this technology.

### Specialisation of the workforce

Larger businesses split complex production processes into separate tasks to boost productivity. By specialising in certain tasks or processes, the workforce is able to produce more output in the same time.

### Marketing economies of scale

A large firm can spread its advertising and marketing budget over a large output and it can purchase its inputs in bulk at negotiated discounted prices if it has sufficient negotiation power in the market. A good example would be the ability of the electricity generators to negotiate lower prices when negotiating coal and gas supply contracts. The major food retailers also have buying power when purchasing supplies from farmers and other suppliers.

### Financial economies of scale



Larger firms are usually rated by the financial markets to be more 'credit worthy' and have access to credit facilities, with favourable rates of borrowing. In contrast, smaller firms often face higher rates of interest on overdrafts and loans. Businesses quoted on the stock market can normally raise fresh money (i.e. extra financial capital) more cheaply through the issue of shares. They are also likely to pay a lower rate of interest on new company bonds issued through the capital markets.

## Disadvantages of Growth (Diseconomies of Scale)

A business may eventually experience a rise in unit costs caused by diseconomies of scale.

**Diseconomies of scale** a firm may experience relate to:

**High capacity utilisation** – if the business is operating at too high utilisation, then production assets are more likely to break down. Machinery may require more maintenance or replacement; people (in a service industry) may become de-motivated, resulting in lower quality and productivity

**Control** – monitoring the productivity and the quality of output from thousands of employees in big businesses is imperfect and costly – this links to the concept of the **principal-agent problem** – how best can managers assess the performance of their workforce when each of the stakeholders may have a different objective or motivation?

**Communication and co-operation** - workers in larger firms may feel a sense of alienation and subsequent loss of morale. If they do not consider themselves to be an integral part of the business, their productivity may fall leading to higher wastage and higher costs.

## Section 2 Finance

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### Topic overview

In this section you are required to be able to:

- Analyse and discuss the need for, and use of, finance
- Evaluate sources of finance
- Analyse and discuss influences on the choice of finance
- Calculate, interpret and analyse cash flow forecasts
- Recommend methods of dealing with forecast cash flow problems
- Evaluate cash flow forecasts as a decision-making tool
- Demonstrate understanding of profit as a reward for enterprise and risk taking
- Calculate, interpret, and make use of, revenue, cost and profit data



## Sources of Finance

### The challenge of raising money

Often the hardest part of starting and running a business is raising the money to keep going.

An entrepreneur might have a great business idea and clear plan for how to exploit a market opportunity. However, unless sufficient finance can be raised, the entrepreneur will struggle to make the most of the opportunity.

Raising finance for a business requires careful planning. The entrepreneur needs to decide:

- **How much finance is required?** Raising finance is hard work and expensive – the start-up should avoid having to go through the process too often!
- **When and for how long the finance is needed?** A useful distinction can be made between long-term, medium-term and short-term finance
- **What security (if any) can be provided?** This will affect the ability of the business to raise a bank or other loan where the lender requires some security (or “collateral”)
- **Whether the entrepreneur is prepared to give up some control** (ownership) of the start-up in return for investment?
- **Whether the cost of the finance** (e.g. interest charged) is justified

The finance needs of a business should also take account of these key areas:

- **Set-up costs** -the costs that are incurred before the business starts to trade
- **Getting ready to produce** - the fixed assets that the business needs before it can begin to trade
- **Working capital** (the stocks needed by the business –e.g. raw materials + allowance for amounts that will be owed by customers once sales begin)
- **Growth and development** (e.g. extra investment in capacity)

### Finance to cover different periods

An important consideration when obtaining finance for a business is when and for how long the finance is needed. A useful distinction can be made between long-term, medium-term and short-term finance. The table below summarises the main examples and uses of each category:

Long-term	Medium-term	Short-term
Finances the whole business over many years	Finances major projects or assets with a long-life	Finances day-to-day trading of the business
<b>Examples:</b>	<b>Examples:</b>	<b>Examples:</b>
Retained profits	Bank loans	Bank overdraft
Share capital	Leasing	Trade creditors
Venture capital	Hire purchase	Short-term bank loans
Mortgages	Government grants	Factoring
Long-term bank loans		

## Share capital

Share capital is the **money invested in a company by the shareholders**. Share capital is a **long-term source of finance**. In return for their investment, shareholders gain a share of the ownership of the company. An illustration of an example company share ownership structure is shown below:

Shareholder	Number of Shares	Shareholding
Angela	300	15%
Nicolas	400	20%
Gordon	600	30%
Barack	700	35%
<b>Total</b>	<b>2,000</b>	<b>100%</b>

Shareholders benefit from the protection offered by **limited liability** – they are only liable for the amount they invest in share capital rather than the overall debts of the company.

The founding entrepreneur is very likely to invest in the share capital of the start-up. This is a common method of financing a start-up. Ideally the founder will try to provide all the share capital of the company, retaining 100% control over the business.

A key point to note is that the entrepreneur may use a variety of personal sources (e.g. cash, personal investments) to finance the purchase of shares.

Once the investment has been made, it is the company that owns the money provided.

The shareholder obtains a return on this investment through **dividends** (payments out of profits) and/or increases in the value of the company when it is eventually sold.

A start-up company can also raise finance by selling shares to **external investors** – this is typically to a business angel or venture capitalist.



## Retained profits

Retained profit is the profit kept in the company rather than paid out to shareholders as a dividend. Retained profit is widely regarded as the most important long-term source of finance for a business.

Retained profits are a very cheap form of finance. They are also very flexible. They can be left in the business as cash in the bank. They can be invested in more fixed assets, extra stocks and so on.

Retained profits are also under the control of the business. It is up to the business owners to decide what to do with them, not the bank manager.

## Bank loan

A bank loan is the most common example of **loan capital** for a business.

**A bank loan** provides medium or long-term finance. The bank sets the **fixed period** over which the loan is provided (e.g. 3, 5 or 10 years), the rate of interest and the timing and amount of repayments.

The bank will usually require that the business provides some security (“collateral”) for the loan, although in the case of a start-up this security often comes in the form of personal guarantees provided by the entrepreneur.

Bank loans are good for financing investment in fixed assets (such as plant & machinery, land and buildings). They are generally charged at a lower rate of interest than a bank overdraft. The interest rate can be either fixed (e.g. 8% per year on the amount outstanding) or variable (where the interest rate varies depending on the Bank of England base rate).

However, a bank loan provides less flexibility than a bank overdraft. The business commits to meeting the bank loan repayments and interest – which it needs to do whether or not the cash flow position is good. A failure to meet the terms of the bank loan may lead to the bank putting the business into insolvency.

Bank loans tend not to be offered to start-ups or businesses with a track record of poor profitability and cash flow. Such businesses are perceived as being high-risk by banks that, as a result of the credit crunch, are more cautious about the kind of lending they offer.

## Trade credit

When a business buys raw materials, components, services or other goods from another business it will often look to pay for those at a later date. If it is allowed to do so, then that supplier is said to offer “trade credit” to the business. The supplier becomes a trade creditor – someone to whom the business owes money.

Trade credit is a short-term source of finance. It has several important advantages to a business:

- It is flexible – the amount of credit reflects the value of business done with a supplier

- It is low cost – trade creditors don't charge interest on the amount outstanding (unless payment is delayed well beyond the settlement date)
- It matches the purchase of goods and services – e.g. stocks can be bought and held for a period, with the finance provided by trade credit rather than cash

A common complaint amongst small businesses is the time it takes for their (larger) customers to settle bills. By delaying payment to a trade creditor, a business holds onto its cash balances for longer. However, by delaying payment, a business has to be careful not to damage its credit reputation.

## Bank overdraft

A bank overdraft is flexible **borrowing facility** on a bank current account which is repayable on demand.

A bank overdraft does not actually result in cash flowing into a business. Instead the business is allowed to let its bank account become “overdrawn” – i.e. in the red, up to a maximum amount.

For example, a business may find that it expects to have a cash shortfall of £15,000 during a month as a result of paying wages and suppliers. If the bank allows it, the overdraft facility can be used to temporarily “borrow” the cash from the bank.

A good way to think about a bank overdraft is to imagine a bank current account which can have either a positive (i.e. cash in the bank) or negative (i.e. cash owed to the bank) status.

The maximum amount that the bank account can go into the red is known as the **overdraft facility**.

How much interest does a business pay on a bank overdraft? It depends on what the bank balance is day to day. Interest is calculated daily, usually at a high rate, on the overdrawn balance.

You can see that a bank overdraft is a flexible form of finance. A business only pays interest on the amount of the overdraft facility used.

However it is important to realise that a bank overdraft is essentially a short-term source of finance designed to cover temporary shortages of cash. If a business finds itself using the expensive overdraft month after month, then it ought to consider whether a cheaper, long-term bank loan would be a more suitable source of finance.

## Leasing

Leasing is another word for renting assets (e.g. property) over a period of time. Leasing is a way of financing the use of such assets without actually having to buy them outright.

There are two main ways a business can pay for the resources and equipment it needs:

- Buy it outright (often referred to as “capital expenditure”)
- Hire purchase or lease



Buying outright is a good option if a business has the funds available, or if it is essential that it owns the equipment. However, paying for resources and equipment means an up-front outflow of cash. This might not be the best option for cash flow.

Paying for goods on hire purchase or leasing equipment allows a business to:

- Use an asset over a fixed period in return for regular payments (i.e. the cash outflow is spread over a longer period)
- Lets the business choose the equipment it needs, with the finance company buying it on behalf of the business

## Obtaining finance from outside investors

Should a business accept investment from outside investors?

You will have seen entrepreneurs making their pitches on Dragon's Den – this is a good example of how a start-up or small business tries to raise capital by encouraging people other than the entrepreneur to invest in the business idea.

For a start-up, the main source of outside (external) investor in the share capital of a company is **friends and family** of the entrepreneur. Opinions differ on whether friends and family should be encouraged to invest in a start-up company. They may be prepared to invest substantial amounts for a longer period of time; they may not want to get too involved in the day-to-day operation of the business. Both of these are positives for the entrepreneur. However, there are pitfalls. Almost inevitably, tensions develop with family and friends as fellow shareholders.

**Business angels** are the other main kind of external investor in a start-up company. Business angels are professional investors who typically invest £10k - £750k. They prefer to invest in businesses with high growth prospects. Angels tend to have made their money by setting up and selling their own business – in other words they have proven entrepreneurial expertise. In addition to their money, Angels often make their own skills, experience and contacts available to the company. Getting the backing of an Angel can be a significant advantage to a start-up, although the entrepreneur needs to accept a loss of control over the business.

## Using an entrepreneur's personal sources of finance

In practice, most businesses make use of the **personal financial sources** of the entrepreneur. This can be personal savings in the building society, a bank balance. It can be providing assets for the business (e.g. a car). It can also simply be **working for nothing!** The following notes explain these in a little more detail.

### *Savings and other "nest-eggs"*

An entrepreneur will often invest personal cash balances into a business. This is a cheap form of finance and it is readily available. Often the decision to start a business is prompted by a change in the personal circumstances of the entrepreneur – e.g. redundancy or an inheritance. Investing personal savings maximises the **control** the entrepreneur keeps over the business. It is also a strong signal of commitment to other potential investors and banks.



**Re-mortgaging** is the most popular way of raising loan-related capital for a new business. The way this works is simple. The entrepreneur takes out a second or larger mortgage on a private property and then invests some or all of this money into the business. The use of mortgaging like this provides access to relatively low-cost finance, although the risk is that, if the business fails, then the property will be lost too. However, the credit crunch falling house prices has made re-mortgaging harder.

### ***Borrowing from friends and family***

This is also common. Friends and family who are supportive of the business idea provide money either directly to the entrepreneur or into the business. This can be quicker and cheaper to arrange (certainly compared with a bank loan) and the interest and repayment terms may be more flexible than a bank loan. However, borrowing in this way can add to the stress faced by an entrepreneur, particularly if the business gets into difficulties.

### ***Credit cards***

This is a surprisingly popular way of financing a start-up. In fact, the use of credit cards is the **most common source of finance** amongst small businesses. It works like this. Each month, the entrepreneur pays for various business-related expenses on a credit card. 15 days later the credit card statement is sent in the post and the balance is paid by the business within the credit-free period. The effect is that the business gets access to a free credit period of around 30-45 days!

### ***Working for nothing!***

How can this be a source of finance? Simple - by working for nothing, an entrepreneur saves the business cash. By working long hours and multi-tasking, the entrepreneur reduces the need to employ others - and therefore saves cash that would otherwise have to be paid out in wages in salaries. In just about every start-up, the founders look to save cash (i.e. reduce the finance needed) by putting in the "hard yards".

# Cash Flow Forecasting

## Cash flow

**Cash flow** describes the movements of cash into and out of a business

When you look at the bank statement of any business, you soon realise that cash flow is a dynamic and often unpredictable part of business life.

In business, cash is always on the move...

- **Cash flows into the bank account** when customers pay for their sales, when a loan is received from the bank, interest is received or when assets are sold
- **Cash flows out of the bank account** when suppliers are paid, employee wages and salaries are paid; interest is paid to the bank and so on

You need to be able to distinguish between:

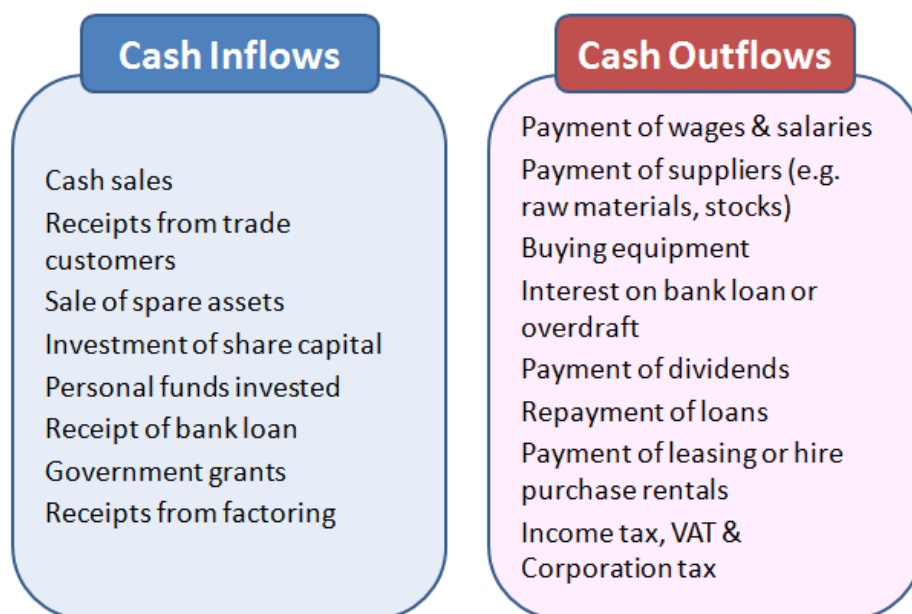
- **Cash inflows:** movements of cash **into** a business
- **Cash outflows:** movements of cash **out of** the business

The difference between the **cash inflows** and **cash outflows** during a specific period (e.g. a week, month) is known as the “**net cash flow**”.

The challenge for any business (particularly a start-up) is to ensure that it manages its net cash flow to ensure that it does not run out of money.

## Main types of cash inflow and outflow

The main types of cash flow can be summarised as follows:



## Why firms suffer cash flow problems

Start-ups and small businesses are especially vulnerable to cash flow problems. Here are some of the main reasons:

Firstly, it takes time before the business makes its first sales – the **pre-trading period** often involves incurring costs without getting any revenue in return.

For example, before it can begin to trade, a new shop has to pay for:

- Shop-fitting and merchandise to fill the shelves (stocks)
- The initial rent of the shop (note – it might be possible to negotiate a rent-free period)
- The wages of shop staff to get the store ready for trading

Suppliers may also demand immediate or early payment from the start-up as the business has not developed a track record for paying bills on time.

A new business usually has to spend up-front on expenses such as marketing and product development. The development phase of coming up with a new product may take some time – research, design, testing and similar activities all consume cash without generating any revenues.

Finally, the new business will not have reserves of cash built up from profitable trading – an important source of cash known as “**retained profits**”.

During the early months of trading, therefore, a start-up business faces its most significant challenges in managing cash flow. Without careful management and planning of cash, the business may run out of money. You can probably see why cash flow problems are a major cause of business failure amongst start-ups.

## The cash flow forecast

The cash flow forecast **predicts** the net cash flows of the business over a **future period**.

The forecast estimates what the cash inflows into the bank account and outflows out of the bank account will be. The result of the cash flow forecast is an estimate of the bank balance at the end of each period covered (normally this is for each month). An example of a simple cash flow forecast is shown below:

£'000	Jan	Feb	Mar	Apr	May	Jun
<b>Cash at start of month</b>	25	20	15	5	10	20
<b>Cash inflows</b>	20	25	20	15	20	25
<b>Cash outflows</b>	25	30	30	10	10	20
<b>Net cash flow</b>	-5	-5	-10	5	10	5
<b>Cash at end of month</b>	20	15	5	10	20	25



A business uses a cash flow forecast to:

- Identify potential shortfalls in cash balances – for example, if the forecast shows a negative cash balance then the business needs to ensure it has a sufficient bank overdraft facility
- See whether the trading performance of the business (revenues, costs and profits) turns into cash.
- Analyse whether the business is achieving the financial objectives set out in the business plan (which will almost certainly include some kind of cash flow budget)

## Why the cash flow forecast is so important

If a business runs out of cash and is not able to obtain new finance, it will become **insolvent**. It is no excuse for management to claim that they didn't see a cash flow crisis coming.

So in business, “cash is king”. Cash flow is the life-blood of all businesses – particularly start-ups and small enterprises. As a result, it is essential that management forecast (predict) what is going to happen to cash flow to make sure the business has enough to survive.

Here are the key reasons why a cash flow forecast is so important:

- **Identifies potential shortfalls in cash balances in advance** – think of the cash flow forecast as an “early warning system”. This is the most important reason for a cash flow forecast
- **Makes sure that the business can afford to pay suppliers and employees.** Suppliers who don't get paid will soon stop supplying the business; it is even worse if employees are not paid on time
- **Spot problems with customer payments** – preparing the forecast encourages the business to look at how quickly customers are paying their debts. Note – this is not really a problem for businesses (like retailers) that take most of their sales in cash/credit cards at the point of sale
- **As an important discipline of financial planning** – the cash flow forecast is an important management process, similar to preparing business budgets
- **External stakeholders such as banks may require a regular forecast.** Certainly if the business has a bank loan, the bank will want to look at cash flow forecasts at regular intervals

## Main causes of a cash flow problems

A **cash flow problem** arises when a business struggles to pay its debts as they become due.

Note that a cash flow problem is not necessarily the same as experiencing a cash outflow. A business often experiences a net cash outflow, for example when making a large payment for raw materials, new equipment or where there is a seasonal drop in demand.

However, when cash flow is consistently negative and the business uses up its cash balances, then the problem becomes serious.

The main causes of cash flow problems are:



Factor	Why It Causes a Cash Flow Problem
<b>Low profits or (worse) losses</b>	There is a direct link between low profits or losses and cash flow problems. Remember - most loss-making businesses eventually run out of cash
<b>Over-investment in capacity</b>	This happens when a business spends too much on production capacity. Factory equipment which is not being used does not generate revenues – so is often a waste of cash
<b>Too much stock</b>	Holding too much stock ties up cash and there is an increased risk that stocks become obsolete (i.e. it can't be sold)
<b>Allowing customers too much credit</b>	Customers who buy on credit are called “trade debtors” Offering credit to customers is a good way to build revenue, but late payment is a common problem and slow-paying customers put a strain on cash flow
<b>Overtrading</b>	This occurs where a business expands too quickly, putting pressure on short-term finance. For example, a retail chain might try to open too many stores too quickly before each starts to generate profits
<b>Seasonal demand</b>	Predictable changes in seasonal demand create cash flow problems – but because they are expected, a business should be able to handle them

## Taking action to improve cash flow

The best way to improve cash flow is to have a reliable and up-to-date cash flow forecast. This provides the information which highlights the main cash flow issues.

In terms of actions which management can take, here are the main options:

**Cut costs** – by far the most important method of improving cash flow. Every business can identify savings in non-essential costs if it looks hard enough. The recent credit crunch and recession has proved that businesses can take drastic actions to cut overheads and other costs, which immediately reduces cash outflows.

**Cut stocks:** reduce the amount of cash tied up by buying and holding raw materials or goods for resale. This can be done by (a) ordering less stock from suppliers and/or (b) offering discounts on stocks held to encourage customers to buy (ideally for cash).

**Delay payments to suppliers** – a dangerous game, but widely used in business. By taking longer to pay bills owed, a business can reduce cash outflows (at the risk of damaging relationships with suppliers though).

**Reduce the credit period offered to customers** – this is easier said than done. By asking customers to pay for their purchases quicker, a business can accelerate cash inflows. However, there is no guarantee that customers will agree. They may need to be given a financial incentive, such as a prompt-payment discount.



**Cut back or delay expansion plans** – many of the biggest cash outflows occur when a business is expanding (e.g. opening new offices or shops, adding a production line or factory). By delaying this expansion, cash can be conserved in the short-term.

# Understanding Revenues

## Revenue

A business exists to provide goods and services. Those products are sold to customers. When a customer buys a product, that transaction becomes a sale for the business. That's what businesses do – they make **sales**.

The value of sales made is the **revenue** of the business.

You will come across some different ways of describing sales. Alternative terms for “sales” include:

- Revenue (the official accounting term)
- Income
- Sales turnover
- Takings (often used by retailers)

So we know that sales arise through the **trading activities** of a business. How are sales measured?

The value of revenue in a given period is a function of the **quantity** of product sold multiplied by the **price** that customers paid. Total revenue can be calculated by this formula:

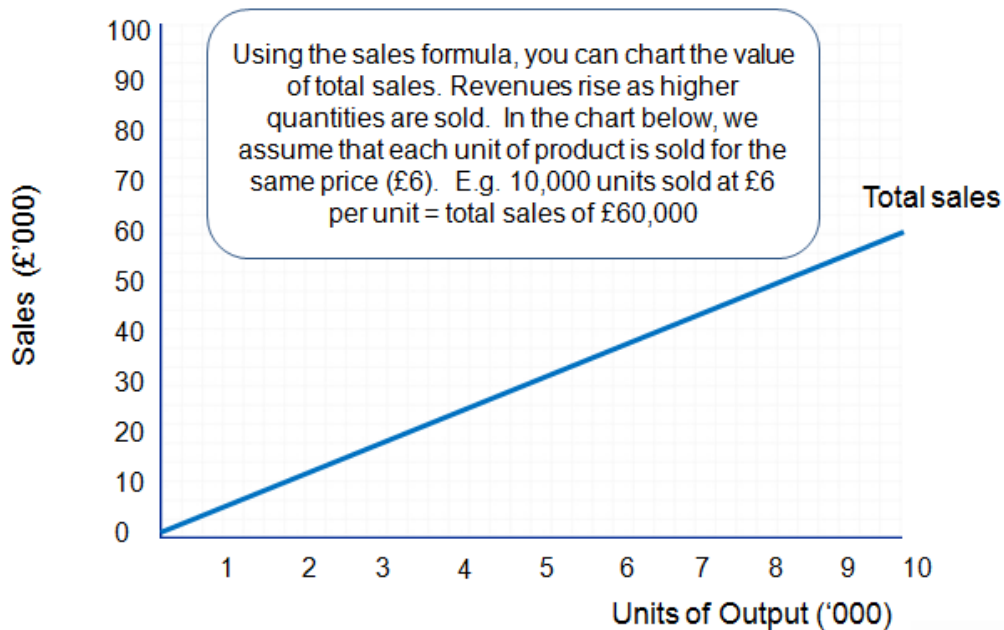
$$\text{Total revenue} = \text{volume sold} \times \text{average selling price}$$

A business that wants to increase revenue needs to either:

- Increase the amount or volume sold (higher quantity),
- Achieve a higher selling price,

Or (ideally) both of the above!





## Calculating revenue

To see how the revenue formula works, let's look at an example.

Sheila runs a web design business. Her budgeted revenue for next year is as follows:

Quarter	Number of jobs	Average value per Job	Total revenue
Jan-Mar	6	£2,500	£15,000
Apr-Jun	7	£2,500	£17,500
Jul-Sep	5	£3,000	£15,000
Oct-Dec	8	£2,750	£22,000
Total	26	£2,673	£69,500

In the example above, Sheila is budgeting to achieve total revenues of £69,500. These sales come from a total of 26 jobs, with an average selling price per job of £2,673.

How might Sheila do better than her estimated revenue for next year?

Winning more jobs might help, although 26 jobs already looks a lot of work. Sheila may find it hard to handle higher sales volumes, unless she is able to raise capacity by employing extra designing or outsourcing elements of the work.

In Sheila's case, the solution to higher sales can probably be found in the average selling price achieved. By focusing on smaller number of higher-value jobs, Sheila may be able to increase revenues and deliver a better service.

For example, if Sheila did just 20 jobs next year (6 fewer than budget) at an average price of £4,000 per job, then her total revenues would be £80,000 (20 x £4,000), an increase over the existing sales budget of £10,500.

## Demand

Demand is defined as:

**The amount (quantity) that customers are prepared to buy at a given price**

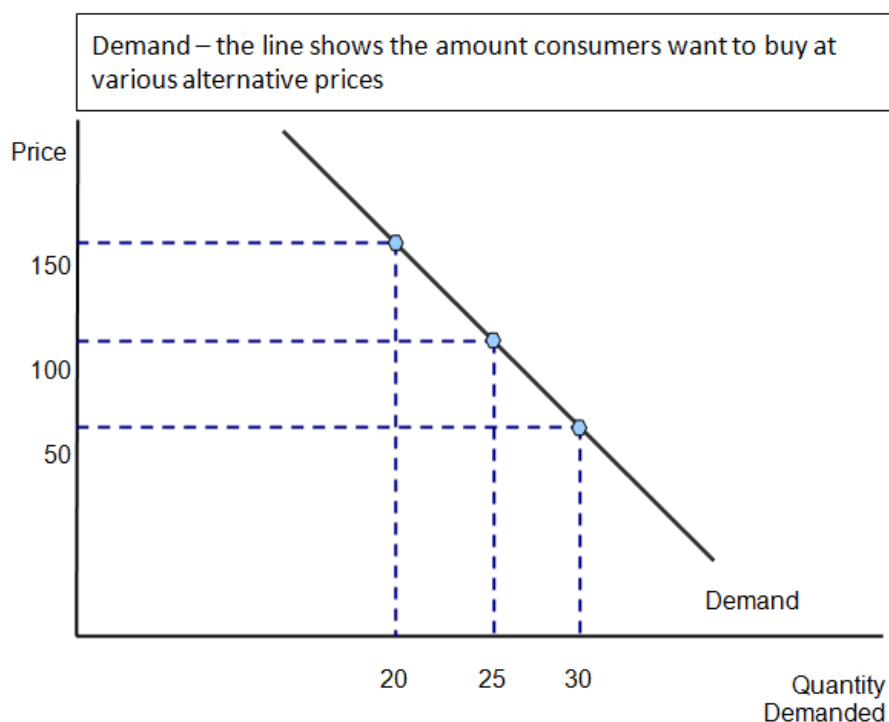
As customers, in an ideal world we would be able to buy whatever we wanted. However, we are restricted by a simple problem – we don't have unlimited money!

So, economists often prefer to talk about “**effective demand**” – which means the quantity that customers **are able to buy**.

Effective demand is all about the **ability and willingness of customers to pay** – or how much they can afford.

Normally, the quantity demanded for a product will increase if the price falls. Conversely, an increase in price will normally lead to a fall in quantity demanded.

The relationship between quantity demanded and price can be shown graphically by drawing a **demand curve**, as illustrated below:



## Factors that affect demand

The demand for a product will be influenced by several factors:

<b>Price</b>	The most important factor that affects demand. Products have different sensitivity to changes in price. For example, demand for necessities such as bread, eggs and butter does not tend to change significantly when prices move up or down
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<b>Income levels</b>	When an individual's income goes up, their ability to purchase goods and services increases, and this causes demand to increase. When incomes fall there will be a decrease in the demand for most goods
<b>Consumer tastes and preferences</b>	Can have a significant effect on demand for different products. Persuasive advertising is designed to cause a change in tastes and preferences and thereby create an increase in demand. A good example of this is the surge in sales of smoothies!
<b>Competition</b>	Competitors are always looking to take a bigger share of the market, perhaps by cutting their prices or by introducing a new or better version of a product
<b>Fashions and technology</b>	When a product becomes unfashionable or out-dated, demand can quickly fall away. The rapid decline in sales of Crocs is a great example

## Problems with estimating revenues

One of the hardest tasks an entrepreneur faces with a start-up business is coming up with a realistic estimate of revenues. The main problems concern the uncertainties about:

- **The size of the available market** – how much do customers already spend in the market? Not every market is well researched, particularly those which do not involve retailing or which are not covered by official statistics.
- **The price that customers will be prepared to pay for a new product.** A new business will often assume that customers will pay a higher price than they actually will. A new product into a market often has to be offered at a discount (lower price) in order to encourage customers to buy for the first time
- **The timing and source of sales:** where will customers buy and which methods will they use (e.g. from a physical store, marketing leaflet or online store?)
- **The effectiveness of marketing activities** – by definition, new businesses start without an established customer base. Launch marketing activities often do not generate the excitement and customer buzz that is intended!
- **The response of competitors** – how will they respond to a new challenger entering the market? A start-up business cannot expect to enter a market without a challenge from the existing operators.

In general, experience shows that start-ups tend to **overestimate** their expected revenues in the first year or two.



## Calculating and Interpreting Profit

### What is profit?

Profit is a very important concept for any business.

Profit is the financial **return** or **reward** that entrepreneurs aim to achieve to reflect the **risk** that they take.

Given that most entrepreneurs **invest** in order to make a return, the profit earned by a business can be used to measure the success of that investment.

Profit is also an important signal to other providers of finance to a business. Banks, suppliers and other lenders are more likely to provide finance to a business that can demonstrate that it makes a profit (or is very likely to do so in the near future) and that it can pay debts as they fall due.

Profit is also an important **source of finance** for a business. Profits earned which are kept in the business (i.e. not distributed to the owners via dividends or other payments) are known as **retained profits**.

Retained profits are an important source of finance for any business, but especially start-up or small businesses. The moment a product is sold for more than it cost to produce, then a profit is earned which can be reinvested.

Profit can be measured and calculated. So here is the formula:

$$\text{PROFIT} = \text{TOTAL SALES less TOTAL COSTS}$$

Here is an example which illustrates the formula in action:

Sales	Costs	Profit or Loss?
£100,000	£75,000	£25,000 (profit)
£100,000	£125,000	£25,000 (loss)
Total sales greater than total costs		= Profit
Total costs greater than total sales		= Loss
Total sales = total costs		= Break-even

### How profit is used

Profit arises when total sales exceed total cost for a period.

Once a profit has been made, the owners of the business have a choice:

- (1) Take the profit out of the business (e.g. pay a dividend to shareholders)



- (2) **Retain** the profit in the business – either in cash or by investing the profit into new assets

Most entrepreneurs reinvested or “retain” profits in a business. Why?

Profit is the most important source of finance for a business. It is defined as being an “internal source” in the sense that it is generated from within the business.

Why is profit important as a source of finance? Because it is entirely within the control of the business – it is not provided by outsiders.

Another reason is that retained profits are relatively cheap. They do have a cost – which is the return that the business owners could obtain by taking the money out of the business. However, the true cost of retained profit is much less than paying interest on a bank loan or overdraft.

What can profit be reinvested in? Essentially to help the business grow: e.g.

- Additional production capacity
- Investment in information technology
- To buy more stocks of raw materials and components

The alternative use for profit is to pay it as a reward or return to the business owners. For shareholders in a company, this method is known as a dividend.

A dividend provides a shareholder with one part of his/her return on investment.

The second part of the return comes when the value of the shares in the company increases.

## Handling a loss

A **loss** arises when **total costs are more than total revenues in a period**.

Over time, losses generally result in a **cash outflow** from a business. If the business does not have sufficient sources of finance to fund these losses, then it will not survive.

It is important to remember that losses are fairly common in business – particularly for start-ups or for businesses that are investing in a new product or market.

It is often the case that a business has to incur substantial costs (e.g. research, design, promotion) before it is able to generate revenues for a new business or product.

However, sustained or substantial losses place a business in trouble. A high proportion of start-ups go out of business because they fail to reach profitability. In other words, they do not manage to reach the **break-even** output.

Why might a business experience a loss when the business plan or budget expected a profit? The main reasons are:

- Revenues are lower than expected (the most likely) – entrepreneurs tend to be over-optimistic with their forecasts for revenues



- The business proves to be less productive or efficient than planned – e.g. it suffers from a higher degree of wastage during production, or suffers from too much capacity
- Unexpected costs arise – either costs that were not planned at all (e.g. a customer or supplier dispute) or where costs turn out to be much higher than expected
- The business suffers from unexpected changes outside its control – e.g. a rise in bank interest rates, a sudden change in consumer confidence, poor weather

The response to a loss should include:

- Reviewing the profit and cash flow forecasts to ensure that the business has sufficient cash to remain viable
- Looking at all major cost categories to see where savings can be made which do not damage revenues
- Renewed marketing activities to boost revenues – particularly in the short-term if cash flow is a problem

# Break-even Calculations & Analysis

## Introduction

In previous sections we looked at the important topics of sales, variable costs and fixed costs. These essential concepts come into play in break-even analysis, so we would recommend you look back at those ideas if you are still unsure what they mean.

Break-even analysis is a mathematical as well as business concept. You need to be able to perform the calculations on this area. However, break-even isn't just about numbers. You need to be able to understand the **analysis** and be able to **interpret** the results. You should also be able to describe the **limitations** of break-even analysis.

So what is "break-even"?

A business is said to "break-even" when it is earning **enough sales to cover all its costs**. The break-even point happens when **sales = total costs**.

In other words, at the break-even point, the business isn't making a profit, but it isn't making a loss either!

It might help to use a football analogy to help explain break-even. If the business is making a profit, it is winning. If it is making a loss, then it is losing. If the business is breaking-even, then the score is a draw.

When we look at break-even, we are concerned with the following key issues:

- At what level of production (output) does break-even take place?
- What is the effect on break-even of changes in the business?
- What business decisions can be taken which affect break-even and which will help improve profits?

## Contribution

Contribution looks at the profit made on individual products. It is used in calculating how many items need to be sold to cover all the business' costs (variable and fixed).

Let's start with a really important definition & formula (you really do need to know these!)

**Definition:**

**Contribution is the difference between sales and variable costs of production**

**Formulae:**

**Contribution = total sales less total variable costs**

**Contribution per unit = selling price per unit less variable costs per unit**



Total contribution can also be calculated as:

**Contribution per unit x number of units sold**

Let's look at a simple worked example of contribution. Here is some information about a business that just sells one product:

Selling price per unit	£30
Variable cost per unit	£18
Contribution per unit	£12 (i.e. £30 less £18)
Units sold	15,000

Using the formulae, we can perform the following calculation:

Contribution = £180,000 (i.e. £12 x 15,000 units)

Looking at the contribution per unit above (£12), you should be able to see that it can be increased by:

- Increasing the selling price per unit - i.e. more than £30
- Lowering the variable cost per unit - i.e. less than £18

Note that the total contribution of £180,000 is **not the total profit** made by the business. Why? This is because we have not yet taken account of the **fixed costs** of the business. Let's do that now...

Imagine that, in the example above, the business has the following fixed costs:

Admin:	£18,000
Marketing:	£25,000
Payroll:	£50,000
Other overheads:	£23,000
Total:	£116,000

The total fixed costs of the business are £116,000. If we take these away from the contribution (£180,000), then we can calculate the overall profit or loss of the business:

Total profit = contribution less fixed costs

Total profit = £180,000 - £116,000

= a profit of £64,000 (i.e. £180,000 less £116,000)

In the above example we calculated contribution per unit by subtracting variable cost per unit from selling price per unit.

Contribution per unit is a really useful number to have when answering questions on break-even.



## Break-even level of output

In this section, we'll take you through the different methods of calculating the production output (volume, or number of units produced) at which the business achieves break-even.

We'll look at three approaches:

- A table (or spread sheet) showing sales and costs over different levels of output
- A formula which you can use to calculate break-even output
- A graph which charts sales and costs

Each of these approaches basically does the same thing, but you need to be happy with them all – you never know which one the examiner might include in the exam!

For each approach, we have to make some important assumptions:

- Selling price per unit stays the same, regardless of the amount produced
- Variable costs vary in direct proportion to output – i.e. variable cost per unit is the same
- All output is sold
- Fixed costs do not vary with output – they stay the same

## Using a table to calculate break-even output

Here is a table showing the sales, variable costs, fixed costs and profits from various levels of output for a one-product business:

The product is sold for £10 per unit. The variable cost per unit is £4. Fixed costs are £40,000 (the same at each level of output).

Output	Sales	Variable Costs	Fixed Costs	Total Costs	Profit
'000	£'000	£'000	£'000	£'000	£'000
0	0	0	40	40	-40
1	10	4	40	44	-34
2	20	8	40	48	-28
3	30	12	40	52	-22
4	40	16	40	56	-16
5	50	20	40	60	-10
6	60	24	40	64	-4
7	70	28	40	68	2
8	80	32	40	72	8
9	90	36	40	76	14
10	100	40	40	80	20



Using the table, you can see that the break-even output is somewhere between 6,000 and 7,000 units. At 6,000 units, the business makes a loss of £4,000. At 7,000 units, the business makes a profit of £2,000.

## Using a formula to calculate break-even output

Let's use the same information as above to show how a formula can be used to quickly calculate the break-even output.

Remember contribution per unit?

Contribution per unit = selling price per unit less variable cost per unit

In this example, contribution per unit = £10 less £4 = £6 per unit

Here comes the clever bit – the formula

$$\text{Break-even output (units)} = \text{Fixed costs (£)} / \text{Contribution per unit (£)}$$

So, break-even output = £40,000 divided by £6 = 6,666

Note: break-even output is always expressed in terms of units

**So break-even output = 6,666 units**

If the information is available, it is always quicker and easier to use this formula rather than use a table or draw a chart.

## Using a chart to calculate break-even output

Using graph paper, it is possible to chart the financial data that allows the break-even output to be measured. We'll use the same example data one last time!

### Step 1

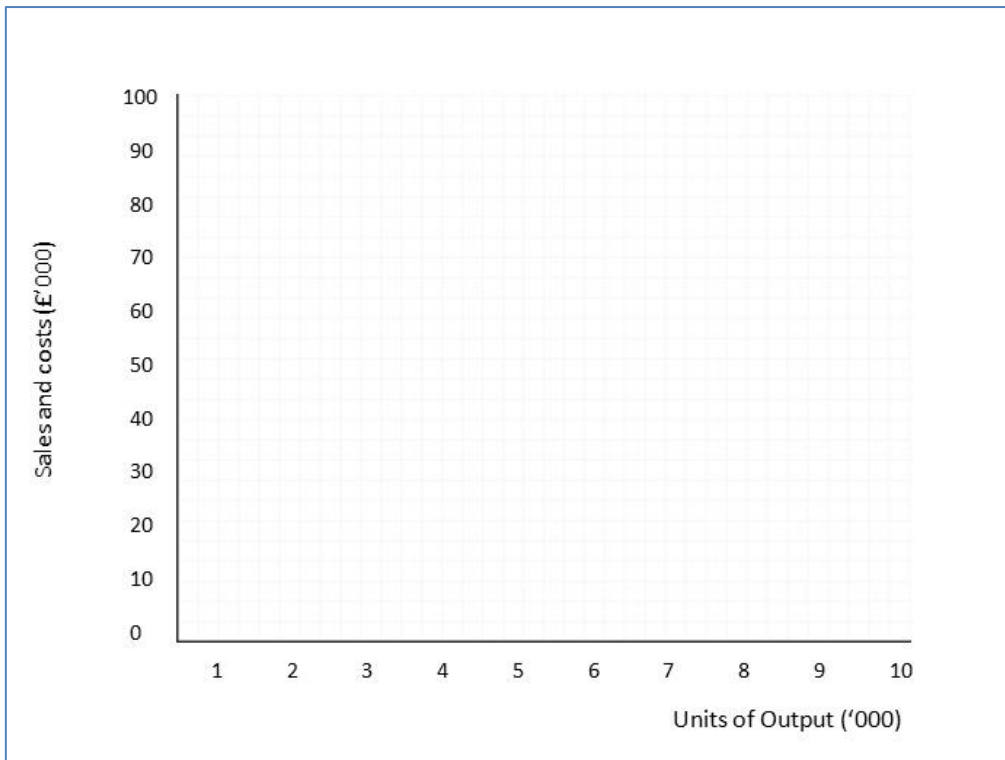
The first step is to produce two axes:

The vertical axis shows the value of sales & costs

The horizontal axis shows the output

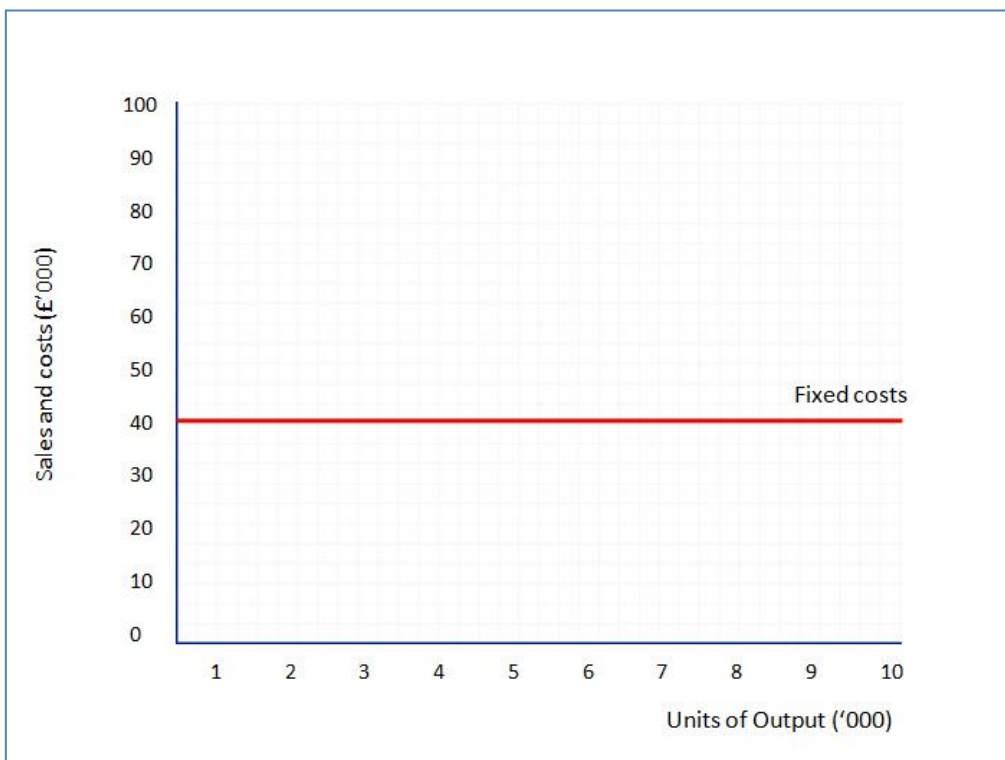
So here is what the blank chart would look like:





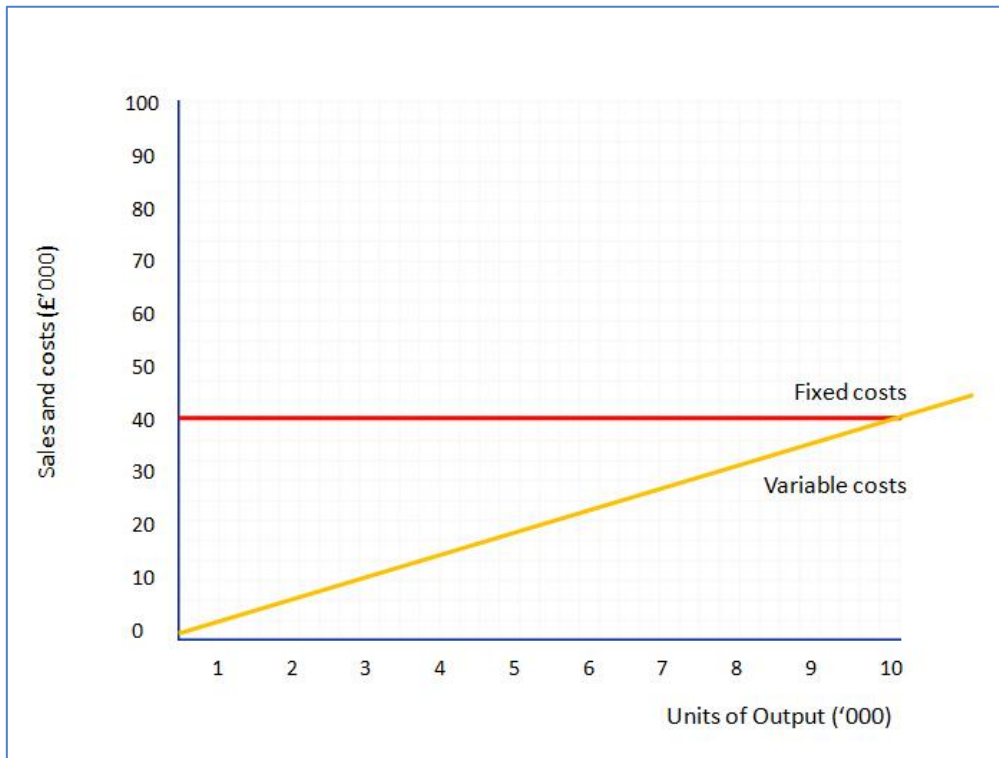
**Step 2**

The next step is to add the fixed cost line. Remember that we assume fixed costs don't change with the level of output. So the fixed cost line (in red below) is a horizontal line, showing £40,000.



### Step 3

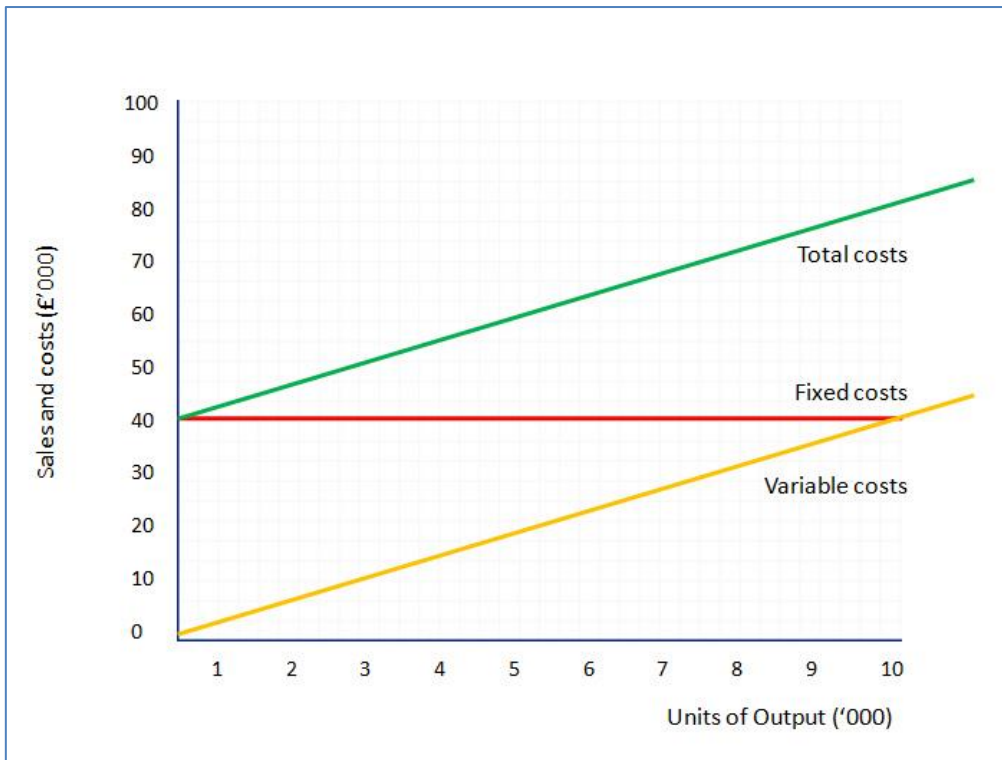
Next we add the variable costs. We assume that variable costs vary directly with output. In our example, the variable cost per unit is £4. So variable costs for 1,000 units will be £4,000, and at 5,000 units they will be £20,000. Remember that you only need to plot a couple of points to be able to draw the straight line (in yellow below).



### Step 4

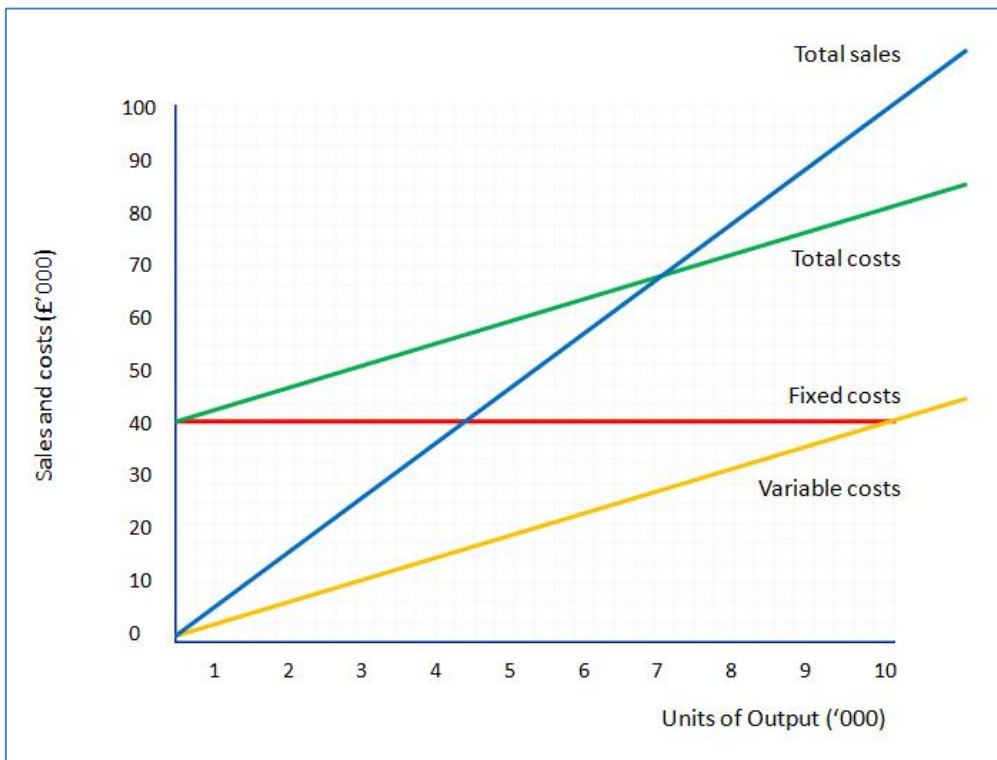
Next step is to add the variable costs to the fixed costs for each level of output. This is important. Remember that to calculate break-even we need to know total costs. The total cost line is shown in green on the chart.





**Step 5**

Having dealt with costs, we can now draw the line for total sales. Remember that we assume that all output is sold for the same selling price (in this case - £10 per unit). So total sales for 2,000 units will be £20,000; 10,000 units will make £100,000 of sales. The total sales line is drawn in blue below.



**Step 6**

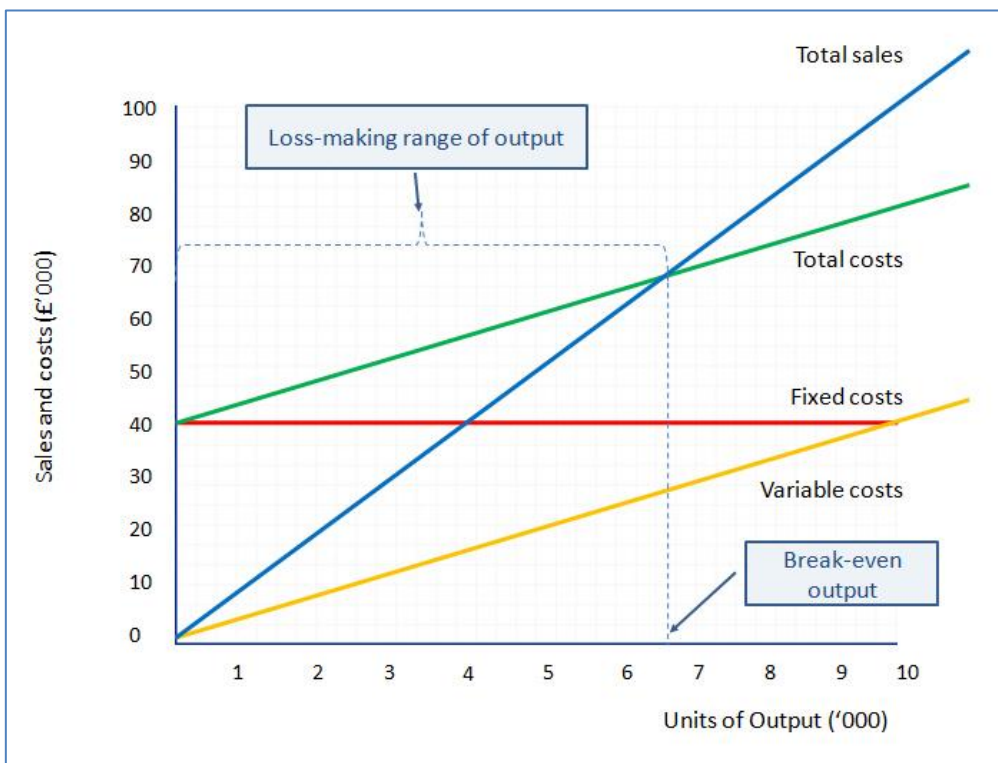
Almost there! The last step is to use these lines to identify certain information from the chart.

First, the break-even output. Remember this is the point where total sales = total costs. So the output is the point where the total sales line crosses the total costs line (e.g. where the blue line crosses the green line). Find this point on the chart and then follow a vertical line down to the output (horizontal) axis. You can see this brings us to 6,666 (approximately, since our chart isn't drawn perfectly to scale!).

Another thing you can notice from the chart is the over a range of output, total costs are higher than total sales (green line higher than the blue line). That means that in this range, the business is making losses. This is the **loss-making range of output**.

If the actual output is more than the break-even output, the business will be making a profit. In our example, any output more than 6,666 units will mean profits are earned.

The difference between the actual output and the break-even output is known as the "margin of safety". For example, if actual output were 8,000 units, then the margin of safety = 8,000 units less 6,666 units = 1,334 units.



## Changes to break-even

We have looked at three approaches to calculating break-even output using the same information.

The next stage is to consider what happens to break-even if the data changes. The best way to see the effect of these changes is to work through some calculations, which you can do in our exercises. However, here is a simple summary which you might find helpful:



Change	Effect on Contribution per Unit	Effect on Break-even Output
Higher selling price	Higher	Lower
Lower selling price	Lower	Higher
Higher variable cost per unit	Lower	Higher
Lower variable cost per unit	Higher	Lower
Increase in fixed costs	No change	Higher
Decrease in fixed costs	No change	Lower

The purpose of looking at the effect of changes in assumptions is to understand what happens to profit as key data in the business changes. This is usually referred to as “**what-if analysis**”.

What-if analysis can be done using any of the three methods. However, it is much easier and quicker to use the break-even formulae rather than drawing charts of new tables. We'll use the formulae for our worked example below.

Here is the starting data for our example:

### ***Gordon's Seafood Restaurant***

Gordon Romsey is planning to open a new seafood restaurant in the popular Cornish village of Padstow to compete with his good friend Rick Strain. His business plan makes the following assumptions:

Average selling price per meal	£40
Average variable cost per meal	£10
Monthly fixed costs	£9,300

Your task: calculate:

- (1) The contribution per unit & current break-even output
- (2) The current margin of safety assuming that Gordon sells 1,200 meals per month
- (3) What would happen to break-even output if the average selling price per meal increased to £50
- (4) What the margin of safety would be if monthly fixed costs were 20% higher but there was no change in the number of meals served per month and the average selling price stays at £40 per meal

So, using our break-even formulae, we can quickly get to the answers. Here's how:

#### **Question (1)**

Contribution per unit = £40 - £10 = £30

Break-even output = fixed costs / contribution per unit = £9,300 / £30 = 930 meals per month



**Question (2)**

Margin of safety = current output less break-even output = 1,200 meals – 930 meals = 270 meals

**Question (3)**

An increase of £10 in the average selling price per meal would increase the contribution per unit to £40 (i.e. £50 - £10).

So the break-even output will now be  $£9,300 / £40 = 744$  meals per month

That means that the break-even output has fallen from 930 to 744 meals. Gordon's restaurant has to sell fewer meals before it breaks even. That's good news!

**Question (4)**

Fixed costs will be 20% higher: that means fixed costs will be  $£9,300 \times 1.2 = £11,160$

Break-even output will now be  $£11,160 / £30 = 1,116$  meals per month

[note: the break-even output has risen (bad news) because fixed costs have gone up]

Margin of safety now = 1,200 meals – 1,116 meals = 84 meals per month

The margin of safety has fallen (bad news)

## Strengths and limitations of break-even analysis

Break-even analysis is a practical and popular tool for many businesses, particularly start-ups. However, you also need to know about the limitations of the method. Here is a summary:

Strengths	Limitations
Focuses entrepreneur on how long it will take before a start-up reaches profitability – i.e. what output or total sales is required	Unrealistic assumptions – products are not sold at the same price at different levels of output; fixed costs do vary when output changes
Helps entrepreneur understand the viability of a business proposition, and also those who will lend money to, or invest in the business	Sales are unlikely to be the same as output – there may be some build up of stocks or wasted output too
Margin of safety calculation shows how much a sales forecast can prove over-optimistic before losses are incurred	Variable costs do not always stay the same. For example, as output rises, the business may benefit from being able to buy inputs at lower prices (buying power), which would reduce variable cost per unit.
Helps entrepreneur understand the level of risk involved in a start-up	Most businesses sell more than one product, so break-even for the business becomes harder to calculate
Illustrates the importance of a start-up keeping fixed costs down to a minimum (higher fixed costs = higher break-even output)	Break-even analysis should be seen as a planning aid rather than a decision-making tool
Calculations are quick and easy – great for giving quick estimates	



# Section 3 External Business Environment

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## Topic overview

In this section you are required to be able to:

- Demonstrate knowledge and understanding of competitive and monopoly markets
- Analyse and discuss how a business may change its competitive environment
- Demonstrate knowledge and understanding of why the government promotes competition
- Demonstrate knowledge and understanding of how business and consumers have, and are, responding to pressure for greater environmental responsibility
- Discuss the social costs and benefits of business activity
- Demonstrate knowledge and understanding of environmental issues; analyse and discuss the responsibility of, and opportunities for, business
- Analyse and discuss sustainability and business
- Demonstrate knowledge and understanding of ethical business behaviour
- Discuss how business might be affected by changes in the level of government spending and taxation
- Discuss how business might be affected by changes in the rate of interest
- Discuss how business might be affected by rising, and falling, consumer incomes
- Discuss how business might be affected by changes in the level employment
- Discuss how changes to the population affect business activity
- Demonstrate knowledge and understanding of globalisation
- Demonstrate knowledge and understanding of the UK's international trade with Europe and other major trading partners
- Demonstrate knowledge and understanding of how UK business competes internationally
- Calculate, interpret and analyse the effect of exchange rate movement on business



## Competition in Markets

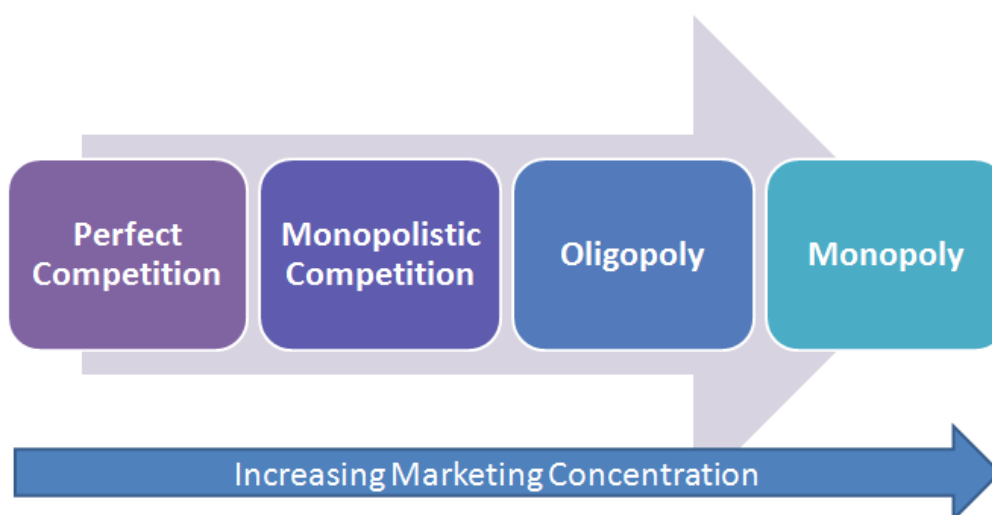
### Market Structures and the Degree of Competition

Very few, if any, businesses operate without facing competition. It is not enough to understand what customers value. A business has to be able to **deliver customer value better than the competition**. The ability to do this is heavily influenced by the **structure of the market** in which a business operates. The more competitive a market is – the harder the task becomes.

There are two basic approaches to analysing market structure:

#### Economist Approach:

In economics, there are four main categories of market structure:



These four categories can be summarised as follows:

Category	Key Features
<b>Perfect Competition</b> (rare in reality)	Many competitors – all offering the same product Intense competition Competitors have to accept the same price
<b>Monopolistic Competition</b>	Many small firms offering differentiated products Each firm has a small market share Examples include restaurants + many local service businesses
<b>Oligopoly</b>	Market dominated by a small number of firms, each with a large market share Tend to compete on non-price factors, including branding Potentially anti-competitive – particularly if competitors collude on price Examples – retail banking, confectionery, grocery retailing
<b>Monopoly</b>	One supplier in the market Has control over price and output – potentially bad news for customers Tend to be heavily regulated to protect consumers



## Porters Model of Industry Rivalry (“Five Forces”)

This alternative model looks at the nature of competition in a market in terms of the following competitive forces:



Dealing with each “force” in turn:

### ***Threat of Market Entry***

New entrants to an industry can raise the level of competition, thereby reducing its attractiveness. The threat of new entrants largely depends on the barriers to entry. High entry barriers exist in some industries (e.g. shipbuilding) whereas other industries are very easy to enter (e.g. estate agency, restaurants).

### ***Threat from Substitutes***

The presence of substitute products can lower industry attractiveness and profitability because they limit price levels.

### ***Bargaining Power of Suppliers***

Suppliers are the businesses that supply materials & other products into the industry. The cost of items bought from suppliers (e.g. raw materials, components) can have a significant impact on a company's profitability. If suppliers have high bargaining power over a company, then in theory the company's industry is less attractive.

### ***Bargaining Power of Customers***

Customers are the people / organisations who create demand in an industry.

### ***Intensity of Rivalry***

The intensity of rivalry between competitors in an industry will depend on:

**The structure of competition** - for example, rivalry is more intense where there are many small or equally sized competitors; rivalry is less when an industry has a clear market leader

**The structure of industry costs** - for example, industries with high fixed costs encourage competitors to fill unused capacity by price cutting



**Degree of differentiation** - industries where products are commodities (e.g. steel, coal) have greater rivalry; industries where competitors can differentiate their products have less rivalry

**Switching costs** - rivalry is reduced where buyers have high switching costs - i.e. there is a significant cost associated with the decision to buy a product from an alternative supplier

**Strategic objectives** - when competitors are pursuing aggressive growth strategies, rivalry is more intense. Where competitors are "milking" profits in a mature industry, the degree of rivalry is less

**Exit barriers** - when barriers to leaving an industry are high (e.g. the cost of closing down factories) - then competitors tend to exhibit greater rivalry.

## Improving Competitiveness

What can a business do to improve its marketing competitiveness, given the structure of the market in which it operates?

Taking the Porter model as an approach, here are three strategies a business could adopt:

### ***Reduce Customer Bargaining Power***

- Reduce over-reliance on customers – spread sales over more customers
- Focus marketing efforts on the most profitable customers

### ***Reduce Supplier Bargaining Power***

- Build relationships with key suppliers – achieve lower buying prices and better credit terms
- Have an alternative source of supply so that business is not over-reliant on one supplier

### ***Create Barriers against Competition***

- Build a brand
- Capture a fair share of distribution – perhaps by using multiple distribution channels
- Operate efficiently to compete at low cost


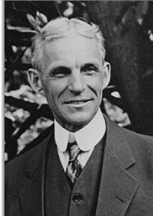
## Business Ethics

### What are business ethics?

Ethics are **moral guidelines** which govern **good behaviour**

So behaving ethically is **doing what is morally right**

Behaving ethically in business is widely regarded as good business practice. To provide you with a couple of quotes:

<p><b>“Being good is good business”</b></p>  <p>Dame Anita Roddick (1942-2007)</p>	<p><b>“A business that makes nothing but money is a poor kind of business”</b></p>  <p>Henry Ford</p>
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Ethical principles and standards in business:

- Define acceptable conduct in business
- Should underpin how management make decisions

An important distinction to remember is that behaving ethically is not quite the same thing as behaving lawfully:

- **Ethics** are about what is right and what is wrong
- **Law** is about what is lawful and what is unlawful

An ethical decision is one that is **both legal** and **meets the shared ethical standards** of the community

Businesses face ethical issues and decisions almost every day – in some industries the issues are very significant. For example:

- Should businesses profit from problem gambling?
- Should supermarkets sell lager cheaper than bottled water?
- Is ethical shopping a luxury we can't afford?

You will probably note the link between business ethics and **corporate social responsibility** (CSR). The two concepts are closely linked:

- A socially responsible firm should be an ethical firm
- An ethical firm should be socially responsible

However there is also a distinction between the two:

- CSR is about responsibility to all stakeholders and not just shareholders
- Ethics is about **morally correct behaviour**



How do businesses ensure that its directors, managers and employees act ethically?

A common approach is to implement a **code of practice**. Ethical codes are increasingly popular – particularly with larger businesses and cover areas such as:

- Corporate social responsibility
- Dealings with customers and supply chain
- Environmental policy & actions
- Rules for personal and corporate integrity

## Ethics in practice

You'll find lots of examples of business ethical decisions and dilemmas in areas such as:



Let's take one of the above – suppliers.

A business cannot claim to be ethical firm if it ignores unethical practices by its suppliers – e.g.

- Use of child labour and forced labour
- Production in sweatshops
- Violation of the basic rights of workers
- Ignoring health, safety and environmental standards

An ethical business has to be concerned with the behaviour of all businesses that operate in the supply chain – i.e.

- Suppliers
- Contractors
- Distributors
- Sales agents

The two articles below provide a good example of the ethical issues that arise in the supply chain: click on the images to read the stories:

### Primark fires child worker firms

UK clothing firm Primark has fired three Indian suppliers because they used child labour to finish goods.

The suppliers sub-contracted smaller firms, which were using child labour to carry out embroidery and sequin work.

The BBC's Panorama programme, which carried out a six-month investigation, alerted Primark to the problem.



Primark said that only a tiny part of its clothing range was affected

guardian.co.uk | TheObserver

News | Sport | Comment | Culture | Business | Money | Life & style | T

News > World news > India

### The hidden face of Primark fashion

The huge fashion store Primark sacked three of its suppliers last week after an investigation for the BBC's Panorama and The Observer uncovered children labouring in Indian refugee camps to produce some of its cheapest garments. Here we reveal the brutal reality of a supply chain that sees children as young as 11 sewing T-shirts which cost shoppers just a few pounds to buy on high streets across Britain. [Watch the Panorama preview here](#)

## Pressure for businesses to act ethically

Businesses and industries increasingly find themselves facing **external pressure** to improve their ethical track record. An interesting feature of the rise of consumer activism online has been increased scrutiny of business activities.

Pressure groups are a good example of this. Pressure groups are external stakeholders they

- Tend to focus on activities & ethical practice of multinationals or industries with ethical issues
- Combine direct and indirect action can damage the target business or industry

Some examples of business-related pressure groups can be found from the following links:

**Direct consumer action** is another way in which business ethics can be challenged.

Consumers may take action against:

- Businesses they consider to be unethical in some ways (e.g. animal furs)
- Business acting irresponsibly
- Businesses that use business practices they find unacceptable

Consumer action can also be positive – supporting businesses with a strong ethical stance & record. A [good example of this is Fairtrade](#).



## Is ethical behaviour good or bad for business?

You might think the above question is an easy one for businesses to answer? Surely acting ethically makes good business sense? As with all issues in business studies, there are two sides to every argument:

The advantages of ethical behaviour include:

- Higher revenues – demand from positive consumer support
- Improved brand and business awareness and recognition
- Better employee motivation and recruitment
- New sources of finance – e.g. from ethical investors

The disadvantages claimed for ethical business include:

- Higher costs – e.g. sourcing from Fairtrade suppliers rather than lowest price
- Higher overheads – e.g. training & communication of ethical policy
- A danger of building up false expectations

# Business & The Environment

## Introduction

Twenty years ago, environmental issues were rarely a priority on the agenda of business management. Now, there is an argument that operating an environmentally-friendly business is a top priority for business, particularly those whose operations and activities are nationwide and international. The environment has become a key external influence on businesses.

The key environmental issues which potentially constrain the ability of a business to achieve its objectives include:

Key Environmental Concerns	
Sustainability A “green” supply chain Minimising packaging Promoting environmental policies	Complying with environmental laws Carbon emissions Waste disposal

## Business & environmental regulation

Business activities are regulated by three main agencies in the UK:

- Environment Agency in England and Wales
- Northern Ireland Environment Agency
- Scottish Environment Protection Agency

And also by Local authorities who regulate

- Air quality & pollution
- Noise, odour and light pollution
- Land contamination
- Environmental health

Environmental laws and regulations are wide and varied, but essentially businesses have to make sure that they:

- Store and treat waste safely and securely
- Protect employees and environment from air pollution
- Don't produce excessive noise, smoke, fumes & other forms of pollution
- Comply with rules for storage and use of hazardous substances & waste

To meet their obligations, businesses need to focus on:

- Use of raw materials, water and other resources (inputs)
- Energy use and its impact on climate change
- Waste and pollution produced by the business



- The impact the business has on employees and the local, wider and international community

Whilst complying with these regulations and laws inevitably imposes additional costs on many businesses, it is possible to identify some advantages that arise for the environmentally-conscious business. These include:

- Lower raw material costs & waste disposal charges
- Longer life of assets which are recycled or repaired
- Trading opportunities with organisations that will only use environmentally-friendly suppliers
- Improved customer goodwill

## Sustainable business

You will see the word “**sustainable**” or “**sustainability**” used in many businesses these days.

A sustainable business is a business that has **no negative overall impact on the environment**.

That definition makes it quite hard to quantify whether the goal of sustainability has been met, since it assumes the net effect of a business activities on the environment can be measured in full.

In practice, a business that aims to be sustainable gets involved in a range of activities designed to “**minimise**” **their net effect on the environment**. These are activities such as:

- Using packaging that can be reused or recycled
- Minimising or eliminating the use of hazardous chemicals and processes that produce harmful by-products
- Working with suppliers to assess and improve their sustainability, or switching to more sustainable suppliers
- Using more energy-efficient equipment, or using renewable sources of energy
- Collaborating with other businesses that can use waste (or supply by-products that can be used as raw materials)
- Eliminating unnecessary activities – e.g. replacing some business travel with conference calls instead

To be effective, a strategy of building a sustainable business requires the drive and support of people through a firm – particularly top management. Management need to:

- Understand how changes will affect employees and other stakeholders
- Gain commitment and support from those stakeholders
- Anticipate changes in environmental legislation - try to be "ahead of the game"
- Set short and long-term objectives for sustainability projects
- Review progress and objectives regularly



# Business & Government Spending / Taxation

## What is government spending?

Government spending is also known as **public spending** and in Britain, it takes up over 45% of GDP. Spending by the **public sector** can be broken down into three main areas:

### Transfer Payments

Transfer payments are **welfare payments** made available through the **social security system** including the Jobseekers' Allowance, Child Benefit, State Pension, Housing Benefit, Income Support and the Working Families Tax Credit. The main aim of transfer payments is to provide a **basic floor of income or minimum standard of living for low income households**.

### Current Government Spending

This is spending on **state-provided goods & services** that are provided on a recurrent basis every week, month and year, for example salaries paid to people working in the NHS and resources for state education and defence. The NHS claims a sizeable proportion of total current spending – hardly surprising as it is the country's biggest employer with over one million people working within the organisation!

### Capital Spending

Capital spending includes **infrastructure spending** such as new motorways and roads, hospitals, schools and prisons.

You can see the main categories of government spending from this table:

£bn	Total
Health Care	120
Pensions	117
Welfare	109
Education	86
Other Spending	84
Defence	44
Protection	35
Interest	31
General Government	25
Transport	21
Total Spending	669



## How does government spending affect businesses?

The level of government spending has many direct and indirect effects on all businesses.

For firms selling goods and services to individual consumers and to other firms:

- Increased government spending may mean higher taxes
- Higher taxes reduce the ability of customers to purchase goods and services, which is likely to reduce consumer spending

Consequently increased government spending is often at the expense of private sector spending and is therefore potentially harmful to some firms

On the other hand, many businesses rely on government spending for their revenues and profits. For businesses that supply services to the public sector, demand is directly linked to how much government is spending. Good examples include:

- Construction firms that build and repair the road network
- Publishers who supply schools and colleges
- IT systems consultants who develop computer systems for public sector organisations

In November 2010 the UK Government announced substantial cuts in government spending as part of a comprehensive review of all government spending programmes. The resulting cuts will directly affect many firms who rely on demand from the public sector for their revenues.

## Government taxation

There are some key reasons why government needs to levy taxes; the main ones are:

- To raise revenue to finance government spending
- Managing aggregate demand - to help meet the government's economic objectives
- Changing the distribution of income and wealth
- Market failure and environmental targets – taxes may help correct market failures (e.g. pollution)

An important distinction can be made between **direct** and **indirect** taxes:

Direct taxation	Indirect taxation
<p>Direct taxation is <b>levied on income, wealth and profit</b></p> <p>Direct taxes include:</p> <p>Income Tax</p> <p>National Insurance Contributions</p> <p>Corporation Tax</p> <p>Capital Gains Tax</p>	<p>Indirect taxes are <b>levied on spending</b> by consumers on goods and services</p> <p>Examples:</p> <p>VAT (15% - 17.5%)</p> <p>Excise duties on fuel and alcohol, car tax, betting tax and the TV licence</p> <p>Who pays?</p> <p>The burden of an indirect tax might be passed onto the consumer by the producer</p>



	Depends on the price elasticity of demand and supply for the product
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The effects of the main types of taxation on businesses can be summarised as follows:

<b>Tax</b>	<b>Levied on</b>	<b>Impact</b>
<b>Income &amp; National Insurance</b>	Income	Affects disposable income of households An increase in income tax would potentially lower consumer spending Higher income tax may also reduce the incentive for employees to work (impact on motivation?)
<b>Corporation</b>	Business profits	Reduces profits available to retain and reinvest in a business A decrease in corporation tax may act as an incentive for a business to invest (to achieve greater profits)
<b>VAT</b>	Spending by households	Directly affects the selling prices of products bought by consumers and households An increase in VAT results in higher inflation and potentially lowers the disposable income of consumers
<b>Capital gains</b>	On profits from shares	Reduces benefits from financial investment

## Business & Interest Rates

### Credit and why businesses need it

Some small businesses trade in cash – and nothing else. Customers pay in cash and the expenses and costs of the business are settled in cash. There is no need for credit.

However, most businesses cannot survive simply with the cash they have in the bank. They need to borrow or lend from banks, suppliers and others in order to trade.

So in business, **credit** is about **borrowing** – owing money to others for a period of time.

For example, credit arises when:

- A business makes use of a **bank overdraft facility** – e.g. the bank account goes £50,000 “into the red” or overdrawn
- A business takes out a **bank loan** – e.g. £100,000 loaned over five years
- A business buys goods or services from a supplier and agrees to pay for them in 30 days – this is known as **trade credit**

The amount of credit that a business can raise will depend on several factors such as:

- Whether the business is profitable and is likely to remain so in the future
- The ability of the business to generate a positive cash flow to allow it to repay credit
- The strength of the relationship between the business and its creditors
- The industry or market in which the business operates

You may have heard about the “**credit crunch**” during 2008 and 2009. The credit crunch was about a reduction in the availability of credit for businesses. As lenders struggled to stay in business, they lost confidence in the ability of businesses to repay credit. So many businesses found themselves in financial trouble due to:

- Banks withdrawing or lowering overdraft facilities
- Banks refusing to provide bank loans, or making the repayments and interest charges worse
- Suppliers insisting on earlier payment of invoices
- Customers taking longer to pay their bills

The effects of the credit crunch – notably an increase in failed businesses – show just how important credit is to the business community.

### Interest rates

An interest rate is the **cost of borrowing money** or the **return for investing money**.

For example, a bank charges interest on amounts loaned out or on the balance of an overdrawn bank account.

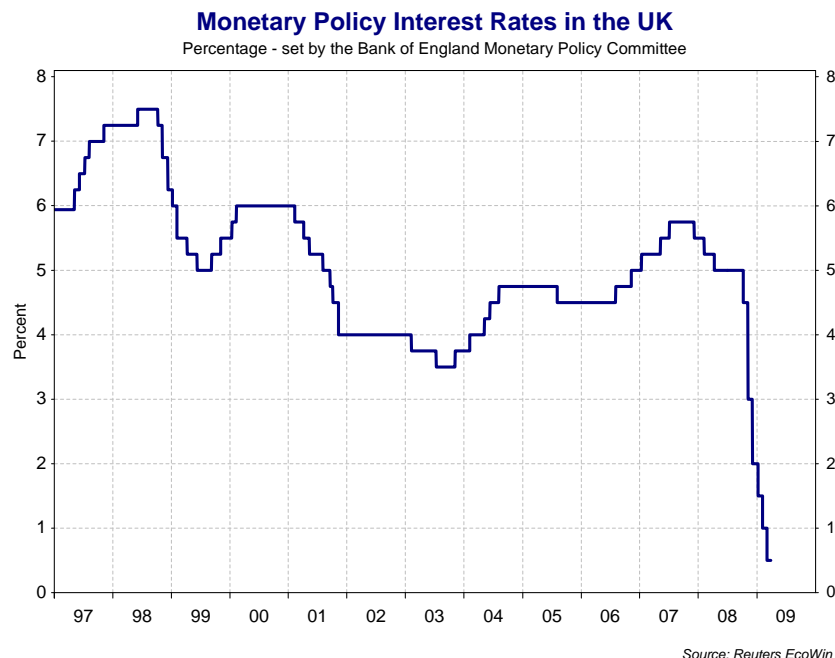
A bank will also pay interest to the owner of an account with a positive balance.

Interest rates vary depending on the type and provider of borrowing.



The **base interest rate** in the UK economy is set by the Bank of England. Each month, the Monetary Policy Committee of the Bank of England to decide what the base rate should be.

During the credit crunch, the base interest rate has fallen sharply to as low as 0.5%, as shown in the chart below:



The base interest rate set by the Bank of England affects other interest rates in the economy because it is the rate at which banks can themselves lend from the Bank of England.

In theory, a lower base rate will lead to lower interest rates on borrowings paid by businesses – but not necessarily.

The effect of a change in interest rate will be affected by whether borrowing is at a **variable** or **fixed** rate:

With a variable rate, the interest charged varies in relation to the base rate. So a fall in the base rate to 0.5% in early 2009 should mean that businesses with variable-rate overdrafts pay lower interest.

A fixed interest rate means that the interest cost is calculated at a fixed rate – which doesn't change over the period of the credit, whatever happens to the base rate.

## How businesses are affected by changes in interest rates

The effect of a change in interest rates will depend on several factors, such as:

- The amount that a business has borrowed and on what terms
- The cash balances that a business holds
- Whether the business operates in markets that depend on consumer spending

Let's look at the third factor listed above to examine the implications a little more closely.



Consider the example of households and consumers who like to pay for their goods and services using borrowing such as credit cards or a bank overdraft or loan. Also think about households who have substantial balances outstanding on a mortgage used to finance a house purchase.

An increase in interest rates will mean that the cost of borrowing rises.

In theory, a higher bank base rate will mean that credit card companies such as Visa and MasterCard will also raise the rate they charge borrowers on amounts that are outstanding.

A higher interest rate will also mean an increase in the monthly mortgage payments that are made by home-owners who have mortgages which are charged at a variable rate.

In both cases, the disposable income of consumers and households will fall.

The monthly mortgage payment might rise from say £500 to £550, which means that the household has £50 less disposable income available to spend or save.

If consumers and households think that the rise in interest rates is temporary or short-term, they may simply continue to spend as before. In this case, there will be little effect on demand. However, it might also prompt them to cut back on spending, which would result in lower demand.

Some businesses operate in markets which are very sensitive to changes in interest rates. These markets often involve goods and services where the purchase is financed by debt and where the price paid is relatively significant compared with the customer's income. For example:

- Housing (mortgages)
- Motor vehicles
- Holidays
- Major purchases of consumer goods – e.g. new kitchen equipment, audio-visual systems

# Business & Consumer Spending

## Introduction to the Business Cycle

Economies go through a regular pattern of ups and downs in the value of economic activity (as measured by gross domestic product or GDP. This is known as the “**business cycle**” (sometimes you also see it referred to as the “**economic cycle**”).

The business cycle is crucial for businesses of all kinds because it directly affects demand for their products.

The business cycle is characterised by four **main phases**:

- **Boom:** high levels of **consumer spending**, business confidence, profits and investment. Prices and costs also tend to rise faster. Unemployment tends to be low as growth in the economy creates new jobs
- **Recession:** falling levels of **consumer spending and confidence** mean lower profits for businesses – which start to cut back on investment. Spare capacity increases + rising unemployment as businesses cut back and reduce stocks
- **Slump / depression:** a prolonged period of declining GDP - very weak consumer spending and business investment; many business failures; rapidly rising unemployment; prices may start falling (deflation)
- **Recovery:** things start to get better; consumers begin to increase spending; businesses feel a little more confident and start to invest again and build stocks; but it takes time for unemployment to stop growing

## The importance of consumer spending

Every business is affected by the stage of the business cycle, but some businesses are more vulnerable to changes in the business cycle than others.

For example, a business that relies on **consumer spending** for its revenues will find that demand is closely related to movements in GDP. During a boom, such businesses should enjoy strong demand for their products, assuming that the products are actually what customers want! But during a slump, the business has to “ride out the storm” – suffering a sharp drop in demand.

[You can see lots of examples of this in the UK economy currently.](#)

During the housing-market inspired boom of the early 2000’s, many retail and consumer goods businesses took advantage of the boom. Consumers were prepared to take on significant personal debt in order to finance their purchases. However, the sharp economic downturn during 2008 and 2009 saw many businesses suffer sales falls of between 10-30%. Some did not survive – their fixed costs were just too high to be able to remain viable.

Businesses whose fortunes are closely linked to the rate of economic growth are referred to as “**cyclical**” businesses. Examples include:

- Fashion retailers
- Electrical goods



- House-builders
- Restaurants
- Advertising
- Overseas tour operators
- Construction and other infrastructure firms

By contrast, **some businesses actually benefit from an economic downturn.** If their products are perceived by customers as representing good value for money, or a cheaper alternative than more expensive products, then consumers are likely to switch. Good examples that were featured in the UK media during the recession of 2008/09 included:

- Value retailers (e.g. Aldi, Lidl, Netto)
- Fast-food outlets (e.g. Dominos, Subway)
- Domestic holidays (e.g. B&Bs and holiday cottages)
- Chocolate – for some reason, chocolate sales always increase strongly during an economic downturn!

## Business & Employment

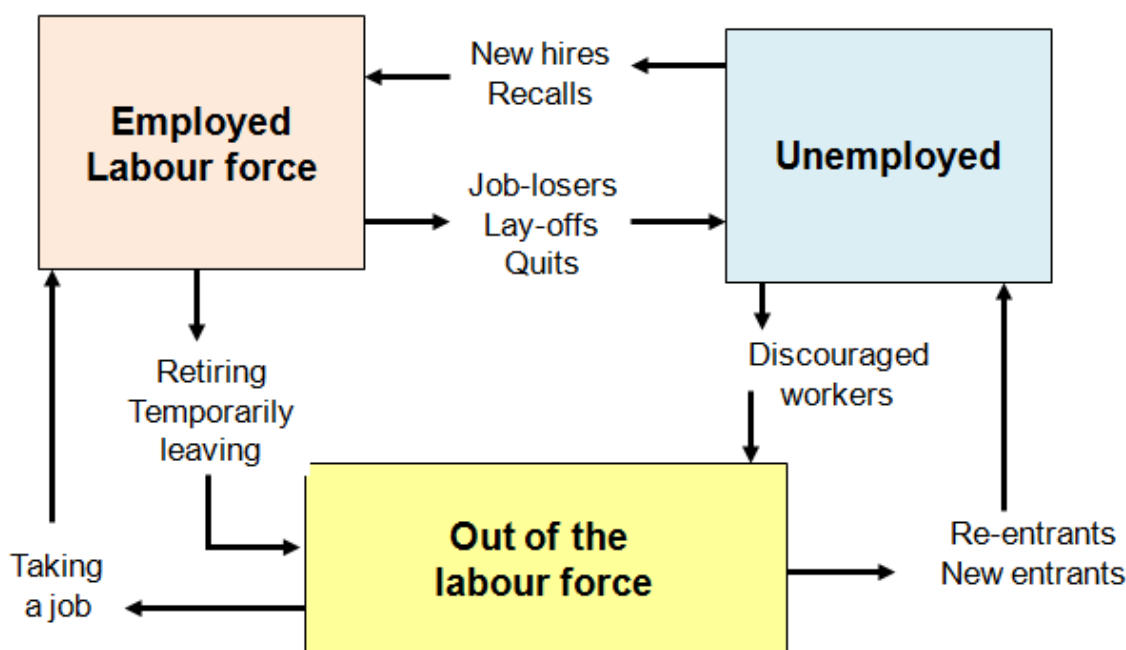
### What is unemployment?

Unemployment arises when the **supply** of those making themselves available for work is greater than the **demand** for workers. Unemployment is, therefore, the **excess supply of labour in the labour market**.

There are two main measures of the unemployment total in the UK:

- **The Claimant Count** measure of unemployment includes people who are eligible to claim the **Job Seeker's Allowance**. The Claimant Count is a “head-count” of people claiming unemployment benefit.
- **The Labour Force Survey** covers those who are without any kind of job including part time work but who have looked for work in the past month and are able to start work in the next two weeks. The figure also includes those people who have found a job and are waiting to start.

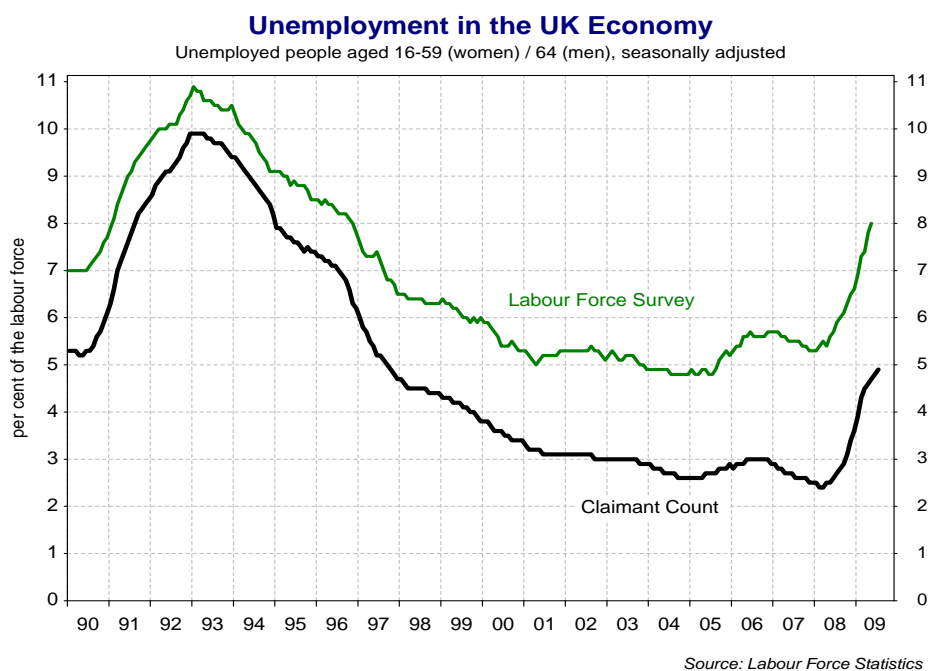
Measuring the number of people employed and unemployed at any one time is quite tricky! That is because there is a constant flow of people entering and leaving the labour market, moving between jobs, or changing the nature of their employment. You can see this illustrated below:



### What has happened to unemployment in the UK?

The most recent changes in claimant count and labour force survey measures of UK unemployment are summarised in the chart below:



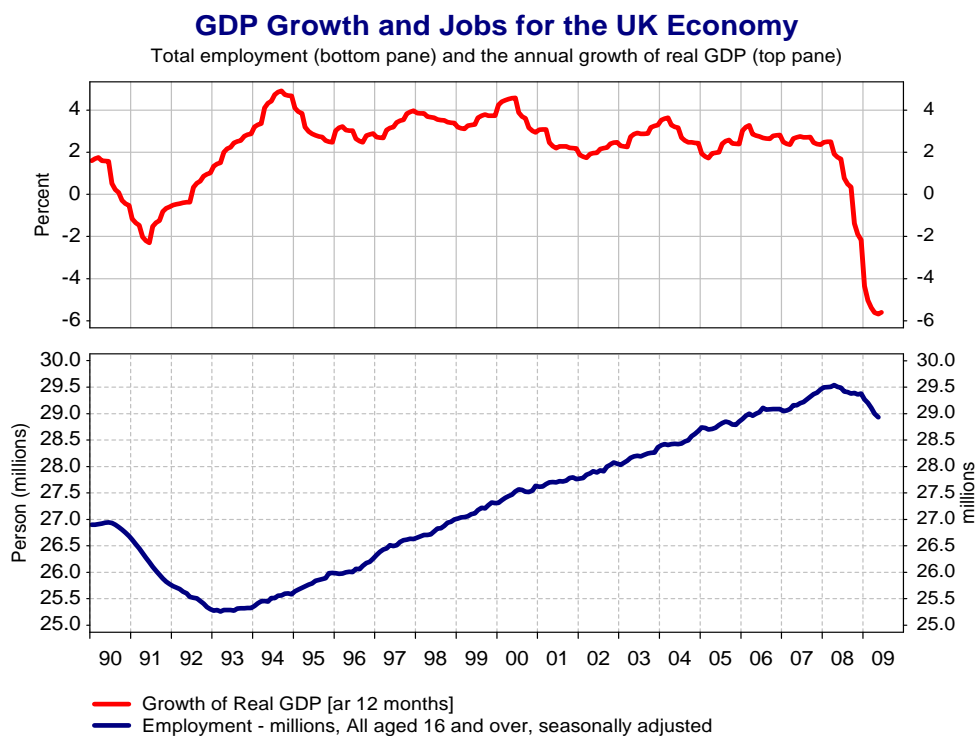


Looking at the data, you should be able to see:

- A long period of falling and then low unemployment from 1992 (recession peak) until 2008
- A steep increase in unemployment following credit crunch and global slump in 2008/09

It is also worth considering the link between economic growth (as measured by growth in GDP) and unemployment. The recent UK data for these two connected economic variables is shown below:





Looking at the chart above:

- Between 1992 and 2008, almost 4 million extra jobs were created in the UK economy
- There is a strong link between sustained economic growth (2-4% p.a.) and employment creation
- The recession of 2008/9 reversed the trend; employment fell by at least 0.5million

## Why employment and unemployment changes

There are four main causes of unemployment:

### **Seasonal unemployment**

Seasonal unemployment happens due to regular and predictable seasonal changes in employment / labour demand. Seasonal unemployment affects certain industries more than others. For example it is a common feature of employment in these industries:

- Catering and leisure
- Construction
- Retailing
- Tourism
- Agriculture

### **Frictional unemployment**

Frictional unemployment is **transitional** unemployment due to people moving between jobs:



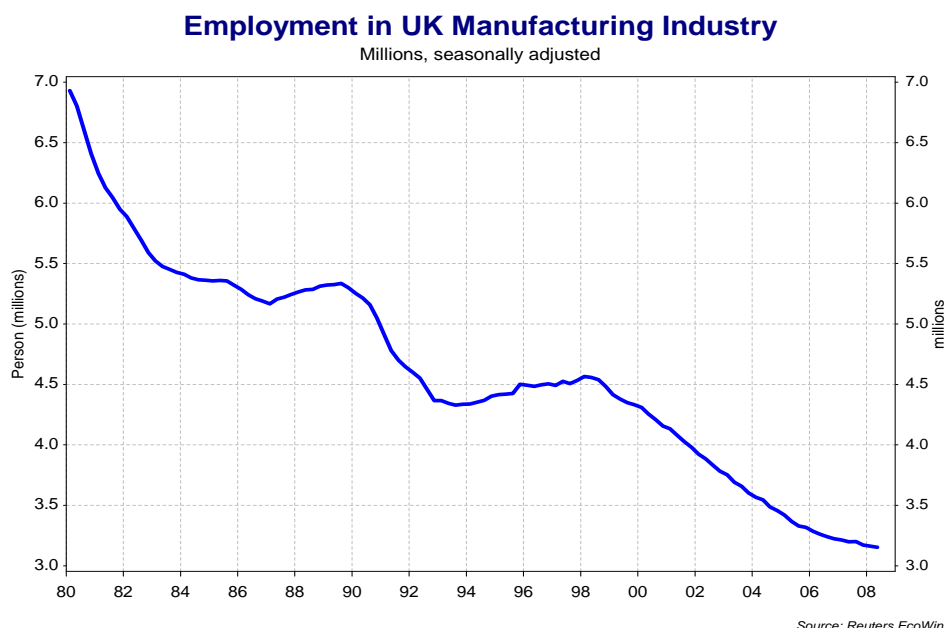
For example, redundant workers or people joining the labour market for the first time such as university graduates may take time searching to find the work they want at an acceptable wage or salary.

### **Structural unemployment**

Structural unemployment occurs when there is a **long run decline in demand** in an industry leading to a reduction in employment because of international competition.

For example, UK manufacturing industry has lost over 500,000 jobs in the last five years alone as production has shifted to lower-cost centres in Eastern Europe and emerging markets in Far East Asia. Many of these workers may suffer from a period of structural unemployment, particularly if they are in regions of above-average unemployment where job opportunities are scarce. You can see the effect of structural unemployment on the UK's manufacturing sector in the chart further below.

Structural unemployment exists where there is a mismatch between the skills of the workforce and the requirements of the new job opportunities. Many of the unemployed from manufacturing industry (e.g. in coal, steel and engineering) have found it difficult to find new work without an investment in re-training.



### **Cyclical unemployment**

**Cyclical unemployment** is due to a **lack of demand for goods and services**. When there is a **recession** or a slowdown in economic growth, we see a rising unemployment because of factors such as:

- Plant closures and other actions to reduce production capacity
- Business failures
- Redundancies
- Outsourcing to reduce costs

This is due to a fall in demand leading to a contraction in output across many industries.



An important evaluation point to note is that the economy does not have to go into recession for cyclical unemployment to start rising. Many jobs can be lost even in a mild slowdown phase and one reason for this is because of rising productivity.

## How businesses are affected by changes in employment & unemployment

### *Some business implications of rising / high unemployment:*

- Lower consumer spending = lower demand for income-elastic products
- Demand for inferior goods (lower price, quality) may increase
- Greater supply of labour – potentially lower wage/salary levels
- Unemployment creates insecurity in the workforce; potentially a cause of lower morale and de-motivation
- Danger of lost skills for industries as a whole
- Business may be impacted by social problems associated with high unemployment (e.g. rising crime)
- Recruitment (in theory) becomes easier – there should be more applicants for each vacancy
- Lower staff turnover – employees less likely to be able to find other jobs, or want to move in an uncertain economic climate

### *Some business implications of falling / low unemployment:*

- Consumers have more income = higher demand for income elastic goods
- Labour market “tightens” – increased upward pressure on wages / salaries
- Harder to recruit or expand without offering better worker packages – potentially affects ability to increase capacity
- Greater sense of job security and motivation in the workforce if the business is doing well

The appropriate response to changes in unemployment will depend on several factors, including:

- The nature / cause of unemployment (e.g. cyclical, structural, seasonal)
- The labour-intensity of the business
- The ability of the business to respond (resources, management structure etc)

Some typical responses are as follows:

Low Unemployment	High Unemployment
A chance to expand capacity to take advantage of higher demand	Reduced production capacity if demand falls



Adjust remuneration packages to remain competitive to attract staff	Headcount reductions (redundancy, recruitment freeze)
Invest in training to meet skills gap and help retain key staff	Reduce working capital (particularly inventories)
Offer more flexible working options to attract larger labour pool	Postpone or cancel investment projects
Consider outsourcing to access specialist skills where recruitment is tough	Potentially diversify into new markets

An important evaluation point to remember is that many appropriate businesses actions will take place before a significant change in unemployment becomes apparent. A business that is anticipating structural or cyclical changes in its business will ideally take action before those changes take full effect.

## Business & Exchange Rates

### What is an exchange rate?

An exchange rate is the **price of one currency expressed in terms of another currency**.

The exchange rate determines how much of one currency has to be given up in order to buy a specific amount of another currency.

For example, look at the exchange rates in the following table:

£1 buys	May	September
US Dollars (\$)	\$1.60	\$1.45
Euros (€)	€1.15	€1.05

In the table above, you can see that in May, £1 would buy \$1.60, if you wanted to convert some pounds into US dollars. Alternatively, £1 would buy €1.15 euro.

Exchange rates change constantly as currencies are bought and sold (traded) on the global currency markets. Let any commodity, a currency has a value or price expressed in terms of what it could buy – that is the exchange rate.

Look at the table and see what happened to the exchange rate for the pound between May and September.

The value of £1 fell against both the US dollar and the Euro. For example, by September, £1 would only buy you \$1.45, a fall of \$0.15 from May.

That means that the pound **weakened** against the dollar (and the euro).

Putting it another way, the value of the US dollar **strengthened** against the pound. If you were holding dollars, you would need less of them to convert into £1.

### Causes of movements in exchange rates

An exchange rate is a price of a currency. The price is determined by the **forces of demand and supply** in the currency markets.

Just like the commodity markets for wheat, oil and coffee, the price of a currency will reflect the amount of the currency that consumers and businesses want to buy (demand) and sell (supply).

Currencies are traded on in international currency markets 24 hours a day. Many billions of pounds and other currencies are traded every hour, to service the needs of governments, businesses and millions of individuals.

For example, here are some reasons why there is demand for a currency:



- Businesses need to pay for invoices from overseas suppliers (e.g. a US supplier sending goods to the UK and pricing the invoice in dollars)
- Businesses needing to convert payments they have received from customers in one currency into another (e.g. a customer in Italy pays a UK business in Euros – which it wants to convert into pounds before putting it in the bank)
- Consumers and business people buying currency before taking a trip or holiday overseas.
- Businesses sending back profits (cash) from their overseas operations to the base currency

Currency markets are also affected by speculative demand and supply. Currency traders bet on which way they think exchange rates will move. If they think that there will be excess demand for a currency and that it will strengthen, then they may buy that currency and then look to sell the currency when the exchange rate has risen (making a profit)

A currency is also affected by interest rates. For example if interest rates in the UK rise, then holders of other currencies may swap them into pounds in order to gain access to a higher interest rate.

## Implications for UK businesses if the pound strengthens

A good way to look at what happens if a currency strengthens (an increase in the exchange rate) is to work through an example.

£1 buys	January	June
US Dollars (\$)	\$1.40	\$1.60

Brandon Ltd imports electronic goods from the US for sale via a UK website. These goods are invoiced in US\$ - and that is the currency that Brandon must use to settle the invoices. Each month they pay their American suppliers approximately \$100,000 for goods imported into the UK.

What is the effect of the strengthening pound in the table above on Brandon Ltd?

Let's convert the monthly US dollar payment to suppliers (\$100,000) into pounds to see how much Brandon has to pay:

£1 buys	January	June
US Dollars (\$)	\$1.40	\$1.60
\$100,000 converted into £	£71,428	£62,500

In June, Brandon Ltd needs to spend £62,500 to pay for their \$100,000 of imported goods from the US. This is £8,928 **less** than in January. That means, for Brandon Ltd, the cost of imports has gone down. A strengthened pound has led to cheaper imported goods – that's good news for Brandon Ltd (they should be able to make a better profit margin on those imported electrical goods).



If a strengthened exchange rate is good news for an importer like Brandon, what about a business that sells from the UK to the USA – an **exporter**?

Take the example of Huntington Plastics Ltd. Huntington exports moulded plastic components to customers in the US, invoicing in US dollars. What would the effect of a strengthened exchange rate be for Huntington?

<b>£1 buys</b>	<b>January</b>	<b>June</b>
<b>US Dollars (\$)</b>	\$1.40	\$1.60
\$100,000 converted into £	£71,428	£62,500

If Huntington received \$100,000 in sales in January, they could be converted into £71,428.

But in June, the same \$100,000 of sales would only be worth £62,500. That's bad news for Huntington. A strengthened pound has resulted in lower sales.

If Huntington were to invoice their exports in pounds rather than dollars, then they might not be directly affected by the changed exchange rate – since there are no foreign currency receipts to convert back into pounds. However, the business might still suffer, since the price of Huntington products would be more expensive for US customers, who might then buy less (perhaps buying from a cheaper domestic supplier).

Let's summarise:

A stronger pound leads to:

Imports being cheaper

Exports dearer (more expensive)

Here is an acronym that can help you remember that: SPICED

**S - Stronger**

**P - Pounds**

**I - Imports**

**C - Cheaper**

**E - Exports**

**D - Dearer**

What happens if the pound weakens (i.e. falls in value against other exchange rates)?

The answer is – the opposite of a stronger pound.

Imports become more expensive for UK importers

Exports become cheaper in overseas markets.

Simple!



# Business & Globalisation

## Introduction to globalisation

Globalisation is arguably the most important factor currently shaping the world economy. Although it is not a new phenomenon (waves of globalisation can be traced back to the 1800s) the changes it is bringing about now occur far more rapidly, spread more widely and have a much greater business, economic and social impact than ever before.

Globalisation is best thought of as a **process** that results in some **significant changes for markets and businesses** to address: for example

- An expansion of trade in goods and services between countries (an opportunity for many businesses; a threat for others)
- An increase in transfers of **financial capital across national boundaries** including **foreign direct investment (FDI)** by multi-national companies and the investments by **sovereign wealth funds** (e.g. Middle Eastern governments buying assets in the UK)
- The internationalisation of products and services and the development of **global brands** such as Starbucks, Nike, Sony and Google
- Shifts in production and consumption – e.g. the expansion of **outsourcing** and **offshoring** of production and support services, which has traditionally benefitted countries with lower labour costs & skilled labour markets such as India, at the expense of jobs in developed economies like the UK
- Increased levels of labour migration – which has the effect of lowering wage costs in many industries, but for others is a problem (e.g. a loss of skilled workers leaving an economy)
- The emergence of countries playing a bigger role in the global trading system including China, Brazil, India and Russia

A key result of globalisation is the increasing **inter-dependence of economies**. For example:

- Most of the world's countries are dependent on each other for their macroeconomic health
- Many of the **newly industrialising countries** are winning a growing share of world trade and their economies are **growing faster** than in richer developed nations
- All countries have been affected by the credit crunch and decline in world trade, but many **emerging market** countries have slowed down rather than fall into a full-blown recession

## Main drivers of globalisation

Influential commentator Hamish McRae has stated that **businesses are the “main driver” of globalisation**. Why is this?

- **Multinationals** (businesses that operate in more than one country) want to increase sales, profits and shareholder value. Globalisation provides that opportunity
- The **barriers to international business are lower and falling** – it is much easier to expand into new territories, particularly if the business is providing a service (e.g. selling software)
- Governments want to encourage domestic businesses to expand overseas (it results in a flow of profits back into the domestic economy) – so there is lots of help available for businesses looking to expand overseas

Businesses themselves though are not the only drivers of globalisation. Consider factors such as:



Picking up on two examples from the drivers above:

#### ***Lower transport costs***

- Costs of ocean shipping have come down, due to containerisation, bulk shipping, and other efficiencies
- This helps to bring prices in the country of manufacture closer to prices in the export market

#### ***Digital communication***

- The Internet has dramatically lowered the cost of transmitting and communicating information
- Expressed in 2005 US dollars, the charge for a three-minute New York-London call has dwindled from \$80 in 1950 to \$0.23 in 2007
- Digital communication has stimulated global trade in “knowledge products” – e.g. software, outsourced services & media content

There are several alternative approaches for a business looking to expand globally – many choose to follow one or more of the following:

- Establish production sites overseas
- Licence technology & other intellectual property
- Joint ventures
- Franchising

- Offshoring / outsourcing
- Selling directly to overseas markets – either with sales agents, distribution agreements or online

The motivations for successful businesses to operate globally are strong, and growing. For example:

- Higher profits and a stronger position and market access in global markets
- Reduced technological barriers to movement of goods, services and factors of production
- Cost considerations – a desire to shift production to countries with lower unit labour costs
- Forward vertical integration (e.g. establishing production platforms in low cost countries where intermediate products can be made into finished products at lower cost)
- Avoidance of transportation costs and avoidance of tariff and non-tariff barriers
- Extending product life-cycles by producing and marketing products in new countries

