



# Edexcel Economics B Course Companion

Theme 1: Markets, Consumers and Firms

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# Teacher's Introduction

Economic impact comes in all shapes and sizes and so, when studying the economy, it is important to look at the whole picture, from the largest market to the individual consumer.

This resource has been written to support the learning of Theme 1: Markets, Consumers and Firms, which forms part of the Edexcel Level 3 Advanced GCE in Economics B. It gives an in-depth view of the new qualification, presenting what specification points students need to know, plus extras along the way for extended learning.

At the beginning of this resource you will find a list of contents showing every specification point that is covered. There are also questions at the end of each topic, with answers at the end of the resource, to help students apply their knowledge to real-life economic contexts. Any key terms are revised as a glossary at the end of the resource.

Students get plenty of chance to practise their quantitative skills in this resource, including:

- Calculate, use and understand percentages and percentage changes (Sections 1.6.1. and 1.6.3.)
- Construct and interpret a range of graphical forms (Sections 1.1.2., 1.2.5., 1.3.2., 1.6.2. and 1.6.4.)
- Calculate cost, revenue and profit (Sections 1.6.1. to 1.6.3.)
- Interpret, apply and analyse information in written, graphical, tabular and numerical forms (all sections)

While extremely valuable to a student's revision, this resource should be treated as a companion to the many other textbooks and activity guides available. As with any subject, it is good to read as widely as possible!

The subjects covered in this resource include everything from business objectives and stakeholder conflicts to sources of finance, market failure and the price mechanism. The notes included in this resource can be given to students before a lesson as preparation for a topic, afterwards in order to help solidify their knowledge, or can be used by teachers as a supplement to in-class exercises and activities.

It is hoped that this resource, as well as offering support for teaching the essential elements of the AQA examination, will help students build on their research and dissemination skills. The world of economics is a constantly changing one full of fascinating stories. This resource attempts to utilise some of these stories as a basis for teaching in the most interesting way possible, meanwhile encouraging further study from the next generation of economic analysts!

## Free Updates!

Register your email address to receive any future free updates\* made to this resource or other Economics resources your school has purchased, and details of any promotions for your subject.

\* resulting from minor specification changes, suggestions from teachers and peer reviews, or occasional errors reported by customers

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# Theme 1: Markets, Consumers

## Economic Terms

<b>Consume</b>	This means to use something, i.e. if you consume a good, then whether that good was an apple (in which case you have eaten it) or a car (in which case you have ridden it). In economics we often say 'to consume' instead of 'to use', because in order to use it, you will have had to have bought it, because in order to use it, you will have had to have bought it.
<b>Consumption</b>	When a person buys a good or pays for a service
<b>Consumer</b>	An entity that buys goods
<b>Goods</b>	A product that is produced by firms or businesses
<b>Economic Agent</b>	An entity (person or organisation) that acts within the economy. Firms and businesses are an economic agent and a corner shop or local business is an economic agent.
<b>Utilise</b>	To make use of something
<b>Utility</b>	The satisfaction or enjoyment an economic agent gains from consuming a good or service.



## 1.1 Scarcity, Choice and Potential Conflict

### 1.1.1 The Basic Economic Problem

The basic economic problem is that the resources are finite but the wants of people are infinite. This means the resources that are used to manufacture goods and provide services are fixed; there is only a set amount. However, there is no limit to our wants, whether that is our want of food, want of a new pair of shoes or want of emergency services, our wants are infinite. There are not enough resources available to 'satisfy' our wants; not enough resources to make all the things we want.

This is the problem of scarcity. Scarcity is the excess of want over what the resources available can satisfy.

**For example:** 100 people want tickets to a show, but there are only 50 seats. There are not enough resources (seats) to satisfy the demand for the show – the tickets, therefore, are scarce.

Choice exists because of scarcity. If there is a finite quantity of resources, then only a limited amount can be produced. Therefore, there must be a decision as to what the resources should produce. Economics is the study of how resources are allocated in order to satisfy the wants. It is the study of how to answer the basic economic problem.

When a decision is made for one thing over another, a sacrifice has been made. In order to have one thing, the opportunity to have the other has been given up or sacrificed. This means there is a trade-off between the two options. If you choose one option, the less you have of another.

**For example:** You have three hours to spend on a Friday evening. You have to choose whether you will spend the evening watching a film with friends or going to a concert. Which option do you sacrifice for the benefits of the other?

#### Opportunity Cost

Opportunity cost is the cost of a choice; it is the opportunity forgone.

This is where the idea of 'opportunity cost' comes from. It is the cost of a choice in a world with scarce resources and trade-offs. Every decision a sacrifice has been made. The opportunity cost is the opportunity forgone. In other words, the unchosen option. In order to have the other, chosen option. The forgone option is the opportunity cost.

**For example:** you want a packet of crisps (worth 50p) and a chocolate bar (also worth 50p) and so you'd like both. However, your resources are finite; you only have 50p to spend. Which do you choose? If you choose the chocolate bar, you have given up having the crisps; you have sacrificed the crisps in order to have the chocolate bar. The crisps are your 'opportunity cost'.

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Bear in mind that these ideas are seen throughout all of life, in an economic sense day-to-day life. The three examples above show choice, trade-off and opportunity costs, you as a consumer and for you choosing how you spend your free time. Companies, organisations and governments as well. The UK Government, for instance, needs to allocate a finite budget on reducing university fees, providing better pension schemes or improving many other things.

### 1.1.1 Questions

1. What is the basic economic problem?
2. You have £10 to spend; you can either spend it on an economics textbook, or you can go and see a film at the cinema.
  - a) Which do you choose?
  - b) What is the net benefit of this option?
  - c) What is the opportunity cost?



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## 1.1.2 Business Objectives

Firms can follow various business objectives. More often than not a firm will seek to maximise its profits, thereby have a profit-maximising objective. However, managers may be paid commission and, therefore, want to maximise the quantity of goods they sell. They would then follow a sales-maximising objective. This is where the principle agent problem may come into play.

### Profit Maximisation

Remember...

$$\text{Profit} = \text{Total Revenue} - \text{Total Costs}$$

A firm may follow a profit-maximising objective in order to make the most money of the business. This is the most common and obvious objective of a firm. At this quantity of goods where the price is the largest compared to the costs.

### Formulae

The profit-maximising point is where: *Marginal Revenue = Marginal Cost*

Businesses may pursue other objectives for a variety of reasons. For example, a manager may want to pay high salaries, or having a large workforce to direct. If a business manager is motivated to sell, then they may wish to produce the highest number of goods possible. A firm may also want to be efficient and, therefore, aim to minimise costs.

### Sales Maximisation

At the sales maximisation point, firms are producing as many goods as they can be. There are a few reasons why a firm might do this; charities and other not-for-profit organisations do this because they are trying to maximise the amount they do and only need to break even to stay in operation. Firms may wish to operate at this point in order to flood the market with their goods and gain power. By selling a lot of goods at a low price the firm can drive other competitors out of business.

### Further Economic Knowledge

At the sales-maximisation point the average revenue of the goods produced is equal to the average cost of all the goods produced and, therefore, just breaks even. Producing any more goods would mean making a loss and producing any less goods would mean the firm hasn't maximised sales.

### Formulae

The sales-maximisation point is when *Average Costs = Average Revenue*

### Satisficing

While a firm can set itself the objective of profit or sales maximisation, it is unlikely to achieve these objectives. Businesses rarely reach these objectives and often settle for something which economist Herbert A. Simon called 'satisficing'.

In economics, the term 'satisficing' is the idea of achieving the **minimally acceptable** solution. In the context of business objectives this refers to the idea that some firms may not aim for the maximum profit that the shareholders accept – perhaps just above normal profits – instead they may aim for a level where they are able to make enough profit in order to survive without constantly needing to raise funds. They can then use these resources to support other aims, such as research and development, branding or product development.

**Survival:** businesses need a positive cash flow (i.e. enough finances so that they can pay their day-to-month bills and other expenses). If a company is profitable overall, but does not have enough to cover its short-term expenses, it probably will not be able to survive.

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**Market share:** this objective also supports profit maximisation. Businesses focus on order to promote themselves to more customers. As they introduce themselves to increase their sales and, therefore, profits.

**Cost-efficiency:** while other objectives help bring revenue up, cost-efficiency help supports profit maximisation as, with lower costs, businesses can earn more profits.

**Employee welfare:** this is an important objective for businesses in order to maintain the business, i.e. a business may be responsible for the quality of its products, but it has control over this.

**Customer satisfaction:** this objective links back to profit maximisation and survival. To make a profit, it must make sure it keeps its customers satisfied. This can lead to repeat sales which ultimately can convert into sales.

**Social objectives:** while most businesses start out with the primary aim of profit maximisation, some have social objectives by supporting social causes (such as making charitable donations from profits) with social objectives for many reasons, including the personal ethics of the business and a more positive reputation for the business's brand, which can lead to higher sales (or profits).

**Return on investment:** also known as ROI, this objective focuses on the success of business decisions. If, for example, a supermarket chain was to buy out a rival company for a large sum of money to make enough profit in future to justify having made the initial purchase (i.e. a company loses money after buying out the rival firm, however, this would show a positive ROI).

Any business that sets itself objectives must make sure they are '**SMART**':

- **Specific:** to the business's aims
- **Measurable:** quantifiable to ensure that the objectives are achieved
- **Achievable:** agreeing that they are capable of being fully completed
- **Realistic:** capable of being achieved using existing resources
- **Time-bound:** given a realistic time for completion

### 1.1.2 Questions

3. Business objectives should be SMART. Identify what this acronym stands for.

4. Copy out and complete the following three sentences with the phrase that best fits.

*Sales Maximisation*

*Profit Maximisation*

- At the point of \_\_\_\_\_, firms are producing where they can before they make a loss.
- The objective of \_\_\_\_\_ aims to generate the maximum profit possible for the shareholders and owners of a business.
- When a firm aims to generate revenue between a minimum and maximum, it may say that it is concentrating on \_\_\_\_\_.

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### 1.1.3 Stakeholders (Economic Agents and Their Objectives)

Stakeholders come in all shapes and sizes. As a definition, stakeholders are any individual or group that has a direct influence on or interest in a business. This might include the owners, customers, suppliers and employees, among many others.

Whenever a business makes a decision, it has to consider its stakeholders: their needs and how they will have on the business. Some decisions will work out better for different stakeholders than others. In most businesses.

*US President Abraham Lincoln perhaps said it best:*

*'You can please some of the people all of the time, you can please all of the people some of the time, but you can't please all of the people all of the time.'*

The majority of businesses are not just interested in what their shareholders want, but also the bigger picture, which shows how different individuals and groups inflicting power on the business. Some stakeholders have more power than others and they all influence the business. The diagram below shows the power of stakeholders, their key interests and what power and influence they have.

Stakeholder	Key Interests	Power/Influence
Shareholders	Survival, growth and profit maximisation	Elect directors
Owners	Survival, growth, positive reputation and acclaimed prestige	Direct management
Management	Efficiency, low labour turnover, good industrial relations and status	Enforce company policies
Suppliers	High sales, steady growth, good liquidity and positive reputation	Availability of goods
Government	Growth, high turnover, high profits, increased tax revenue and environmental awareness	Legislation and regulatory practices
Financial institutes (banks, etc.)	Repayment of loans/interest, etc.	Removal of funds
Customers	Low prices, quality product, green credentials and reliable service	Spending power and awareness
Employees	Salary, job security, career progression, motivation	Productivity and quality of work
Local community	Safe place to live, low noise, disruption and pollution	Complaints and protests

Table: Stakeholders, their key interests and power/influence

The power of stakeholders can be broken down into four categories:

- **Low power, low interest**, e.g. unaffected members of the local community
- **Low power, high interest**, e.g. non-management employees, etc.
- **High power, low interest**, e.g. suppliers to the company
- **High power, high interest**, e.g. local council

We can draw these stakeholders as a stakeholder map:

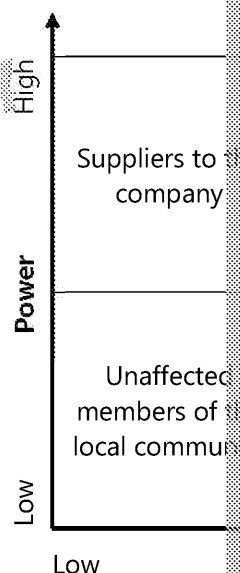


Diagram: An example of a stakeholder map

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## Stakeholder Needs and Conflict

Naturally, when it comes to stakeholder needs and power, there can be a conflict. For example, shareholders, who are interested in high sales and profit maximisation, may be extremely interested in high sales and profit maximisation. The local community, such as the local community, may want to ensure their home town is safe and free from pollution. If a company wishes to expand its operations in order to produce more goods, generate more revenue and increase profits, it will also consider the possible effects to the local community. If the local community could react by filing complaints with their local council, holding demonstrations and ruining the reputation of the company through word of mouth. This issue represents a conflict of interest.

More examples of stakeholder conflict include:

- **Management vs Employees:** the management of the company wishes to increase the size of the company by producing more goods while the employees are not prepared to work longer hours unless their salaries improve.
- **Government vs Owners:** new sustainability legislation means that a company must invest in new equipment in order to reduce its emissions of carbon dioxide. While important for the environment, this expenditure eats into the potential profits of the company.
- **Suppliers vs Owners:** this conflict occurs as the business needs to keep a good relationship with its suppliers. It also make large payments to its suppliers – if raw materials are not available, the company will have less flexibility in setting future payment deadlines, or it may have to order supplies in bulk.

## Corporate Social Responsibility

This no longer only applies to firms that care about reducing the damage they cause. Firms today have some sort of corporate social responsibility (CSR) that they follow, either by law or by the average consumer who now expects it. Seen by many as expensive, CSR can save firms money (by reducing waste and lowering their bills) and creates the image of a socially responsible company. Consumers feel good about supporting it. Many businesses have increased their marketing and environmentally-friendly practices and continue to reap the benefits of a growing market.



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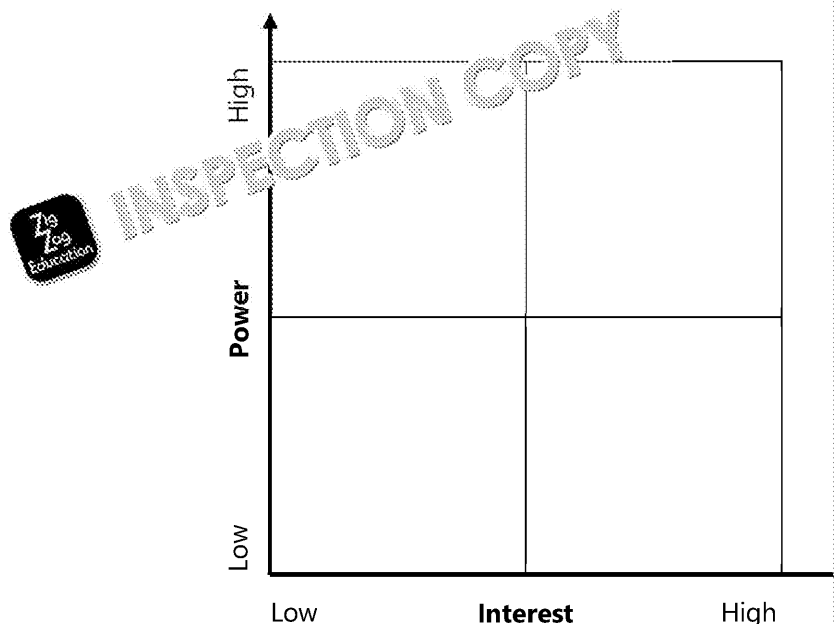
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### 1.1.3 Questions

5. The sports equipment manufacturer, Tennis Elbow, wishes to create stakeholders. The company has 30 employees, most of whom are workers. The firm purchases all its materials from one main supplier to a select few consumers in the UK. Tennis Elbow is based in a small town. The company does not have much impact on the local residents.

Using the information above, copy the following stakeholder map and insert one stakeholder in each section.



6. Below are three pairs of stakeholders for Tennis Elbow. Explain why each pair of stakeholders has a conflict of interest.
- Shareholders and Employees
  - Suppliers and Consumers
  - Business Owners and Local Community

### 1.1 Keywords

<b>Opportunity Cost</b>	The next best alternative that is forgone when making a decision.
<b>Profit</b>	An objective of most firms: to achieve as much profit as possible.
<b>Maximisation</b>	The process of achieving the maximum possible quantity of output and/or profit.
<b>Satisficing</b>	The idea of achieving a minimally acceptable result rather than the maximum possible. In business objectives this refers to the idea that some firms aim for a level of profit that their shareholders accept – perhaps a target – instead of trying to maximise profits.
<b>Marginal Revenue</b>	The additional revenue gained by a firm from selling one more unit of output.
<b>Stakeholder</b>	A person or group that has interest in, and/or is affected by, the actions of a firm.

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## 1.2 Enterprise, Business and the Economy

Entrepreneurs play a crucial role in the economy. They look to combine resources, innovate and start businesses, contributing to economic growth. In this section we will look at the economy in detail.

### 1.2.1 Role of an Entrepreneur in the Economy

#### Creative Destruction

New ideas and processes are a fundamental part of how our economy works. A key concept is *creative destruction*. This is the notion that the old is replaced by the new. New ideas can cause the demise of whatever existed before them (destruction).

Entrepreneurs can gain an advantage over the rest of the market by exploiting this idea. Those looking to set up or expand a business are always seeking new products, ideas and processes. The introduction of new products can be the most obvious example of how this, if successful, can destroy the market for older products. For example, the introduction of smartphones has all but killed off the production of regular mobile phones – and also affected sales of digital cameras and standalone music players.

It can also refer, though, to how *factors of production* (land, labour and capital) are organised (see section 1.2.3). Innovation can mean discovering the best or most efficient use of capital or resources. For example, a firm might cut costs through outsourcing labour, leading to a loss of market share as a result.

Jean-Baptiste Say, one of the first people to explain the theory behind the role of the entrepreneur, wrote in 1803 '*the entrepreneur shifts economic resources out of an area of lower [productivity] to an area of higher productivity and greater yield*'. This is still true today – entrepreneurs are constantly innovating in order to make money.

There will be both winners and losers, though, as a result of creative destruction. The products that are replaced by newer ideas might lose if they can't adapt. Workers might be replaced by capital or their jobs are outsourced.

In general, though, creative destruction can be seen as good for an economy. It prevents the market power of bigger companies if entrepreneurs introduce new, successful products.

#### Making Decisions to Operate, Develop and Expand

Once the entrepreneur has set up a business, he or she will have full responsibility for all aspects of the business, from marketing to finance, operations and production. If the business is a sole trader, i.e. owned by one person, the entrepreneur will manage every area of the business. The bigger the business, the more responsibilities will be required and so responsibilities will be broken down into various departments, such as sales, marketing, finance and purchasing departments.

The next stage for the entrepreneur (who could be anyone from the sole owner to a partner) is to decide how to expand and develop their business.

This might involve:

- Purchasing new locations
- Investing in equipment
- Expanding current premises
- Hiring skilled staff
- Buying out rival companies
- Performing market research
- Investigating new product ideas
- Testing prototypes on the target market
- Researching the market
- Increasing brand awareness

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## Adding Value

*Added Value* is the difference between the price at which a business sells its product and the cost of producing that product/service. Businesses add value to their products/services in order to make them more attractive and desirable to the customer. Firms achieve this by changing the product or the way that customers perceive the product (through advertising and branding).

You can calculate the added value of a product/service using the following formula:

Added value	=	Selling price of product/service – Total cost of producing product/service
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Making a product/service more desirable helps to keep customers happy, attract more customers and increase purchases – some customers might even refer their friends. Repeat purchases and referrals can reduce the business's advertising and marketing costs, and improve and consolidate market share and market growth.

Value can be added to a product or service *functionally* or *aesthetically*. Some ways to *functionally* add value are:

1. Offer customers several *alternative methods* of payment, e.g. credit card, debit card, bank transfer, cheque or cash.
2. Offer customers the facility of purchasing a *gift voucher* for the product/service for themselves and friends on special occasions.
3. Issue customers with a *loyalty card* so that they can *get something back* each time they buy or use a service.
4. Offer customers *cash discounts* on purchases or introduce *special promotions* (e.g. buy one and get the second for half price).
5. Offer customers *warranties* and extended warranties on the product purchase.
6. Provide customers with a reliable *after-sales service* for the product.
7. Give customers the option of purchasing '*add-ons*' or '*upgrades*' for the product.
8. Price the product or service appropriately. *Higher-priced* products create the perception of quality and have a certain '*snob*' value.

Some ways to *aesthetically* add value to a product or service are:

1. Associate the product or service with *well-known* personalities or businesses.
2. Package and present the product in a way that creates the *perception* of value.
3. Present the product as a *uniquely designed* '*must-have*' item.

### 1.2.1 Questions

1. a) What equation is used to calculate added value?  
b) Identify two ways in which a firm can add value to products/services.  
i) Functionally  
ii) Aesthetically
2. a) The introduction of tablet computers can be seen as an example of *functional* value added. What goods or services might no longer be profitable as a result of the introduction of tablet computers?  
b) What might this be good for the economy?

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## 1.2.2 Entrepreneurial Motives

Entrepreneurs are people that thrive on success, risk and reward. They come in all shapes and sizes (and with all sorts of ideas!) and the reasons for becoming an entrepreneur can differ from person to person.

### Characteristics Required for an Entrepreneur

Their characteristics, however, are normally very similar and include:

- *Creative* – be able to look to the future
- *Hardworking* – have no problem putting in the necessary effort to run a business
- *Resilient* – be emotionally stable enough to bounce back from adversity
- *Self-confident* – have confidence in their own abilities and be able to communicate this
- *Risk-taking* – be willing to take chances that have potential for reward
- *Initiative* – be able to take an idea/plan and act upon it with minimal guidance

### Skills Required for an Entrepreneur

There are skills that an entrepreneur must have and include:

- *Problem-solving* – be able to think creatively to understand how to solve a problem
- *Teamwork* – have the ability to offer support when needed
- *Communication* – be able to ensure everyone can understand the vision
- *Organisation* – have the ability to manage time and responsibilities
- *Numeracy* – have the ability to do calculations, such as profit and loss
- *Information technology* – be able to use technology in everyday life as well as in business

### Reasons Why People Set up Businesses

Entrepreneurship is stressful, risky and time-consuming. It is also self-gratifying and often involves a lot of contrasts and conflicts do not dissuade people from becoming entrepreneurs because they:

1. Enjoy a good *challenge*
2. Are *creative* individuals by nature
3. Have always wanted to be their *own boss*
4. See that *profit* can be made from their enterprise
5. Want to *do things differently* from everyone else
6. Have been *inspired* by someone else
7. May have an *entrepreneurial spirit* wanting to enter a new market as social entrepreneurs use new techniques to tackle social issues

### Financial and Non-financial Reasons

There are *financial* and *non-financial* reasons for why people become entrepreneurs. Financial reasons include *profit maximisation* and *profit satisficing* (financial) and flexibility of the *work-life balance* (non-financial).

By focusing on *profit maximisation*, entrepreneurs can invest in the growth of their business by attracting as many potential customers as possible. *Profit satisficing*, on the other hand, rather than maximising profit, involves generating enough profit to fulfil a business's requirements. The amount of profit a business can make can depend on many factors, such as long-term investment plans and the market conditions.

Society is shifting and the *work-life balance* (more on this in section 1.5.4.) is becoming more important. People no longer feel the need to work long hours as a way of earning more pay (as in some industries). Instead, people put value in their leisure and family time and so look for ways to balance their lives, rather than the other way around. This social change has encouraged people to start businesses from their own homes. Home-based businesses are often small operations that can be run without compromising on what is really important to them.

### 1.2.2 Questions

3. Explain one reason why a person would choose to set up their own business.
4. Read the names of five businesses below and identify why each owner might have started their business. Reasons may include *ethical/moral stance*, *home based*, *social enterprise* or *creativity*:
  - a) Social Justice Ltd
  - b) Imagine Inspire Innovate Ltd
  - c) Bargain Prices Plc
  - d) Green Warriors Ltd
  - e) Handmade Gifts

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### 1.2.3 Factors of Production

Factors of production consist of the inputs needed to make a product or service: land, labour and capital. These resources are often scarce and, therefore, valued highly by business. If an economy plans to grow its service sector, for instance, it must have the land, labour and capital to achieve this. If these factors are not present, the economy may need to encourage their availability.

#### Land

Land involves natural resources, the cost of which is the price of buying or renting the land on which production happens, such as the building that is rented for a factory, or a farm bought for growing crops and looking after animals. Land is considered a limited resource as not everyone has it. Canada, for instance, has a great amount of oil reserves and a large area of the Amazon rainforest.

#### Labour

This is the work that people do in order to convert raw materials into other products. Human capital is the measure of a worker in terms of their ability. The productivity of labour (human capital) can be increased by improving a worker's level of skill. There are a variety of methods, including investment in education or training and by the amount of time spent on their roles. Workers that meet a high level of human capital will cost a business more to demand higher wages. Human capital can consist of managers or subsidiary employees. It is flexible as they can be reallocated to different parts of a business or economy depending on the need. For instance, an economy wishes to expand its industrial sector, it might offer grants to encourage investment in that area. One of the main resources that a business would then need to reallocate is labour.

#### Capital

Capital is a twofold concept that can refer either to the physical or the financial:

*Physical* capital refers to tangible equipment that is used in the production process, such as machinery, vehicles, while *financial* capital refers to money. It is the monetary capital that is used to invest in the business.

Capital and labour, from a business point of view, are substitutes for each other. A machine or a worker to make something; which one a business chooses will depend on the cost of labour and the productivity of each.

#### Enterprise

Entrepreneurs are the risk-taking and creative resources (people) who come up with new ideas. These ideas are often what can make or break a business – the better the idea, the more successful the business, therefore, more sales and profit. If the business idea does not meet the expectations, the business may fail. A very opposite can occur.

Enterprise is the factor that refers to the head of production who manages the allocation of resources, i.e. land, labour and capital. In economics, the factors of production to business owners are included in the cost of production.

### 1.2.3 Questions

5. a) Explain the difference between physical and financial capital.  
b) Explain why labour is considered a flexible factor of production.
6. James Bolivar is a successful chef who wishes to start up his own restaurant. List the factors of production he will need and explain examples for each one.

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## 1.2.4 Specialisation

### What is Specialisation?

Adam Smith was an eighteenth-century economist who came up with the idea of specialisation. This is the idea that someone should be concentrating on only one aspect, or in the context of an economy, concentrating on producing one good. He suggested countries should only produce that which they are good at producing, i.e. the good they have an absolute advantage in, and trade with other countries to obtain all the other goods.

**For example,** France should specialise in producing wine and Belgium should specialise in producing beer. Then, in order to obtain both goods, France and Belgium should trade their excess wines and beers.

### Advantages and Disadvantages of Specialisation

If a country specialises in a product that it is good at producing, it usually is more efficient in producing that good. Therefore, efficiency increases with specialisation. This means production costs are reduced from specialisation, which will lead to a lower price. Consumers would benefit from lower prices and inflation levels should be reduced.

Equally, specialisation would mean production would increase as countries will naturally specialise. If countries follow the suggestions of Adam Smith then they can find they have an advantage in producing the goods in which they have an absolute advantage and trading for the goods they need. This leads to a benefit from lower prices and increased consumer choice from international goods. There is also an increase in growth rates as production increases.

However, it is advised not 'to put all your eggs in one basket'. By specialising countries lose diversity and shocks in certain sectors can have dramatic effects on economies specialising. Specialising and trading increases interdependence among countries. As has been seen in the 2008 financial crash, economic shocks spread across integrated economies; as one economy was dependent on their trade will find they are also hit by the downturn.

### Division of Labour

This idea of specialisation can also be applied to the production process of a good. It is theorised that the production process could be split into stages and if a person specialises in one stage, the firm could benefit in a similar way to a specialising country.

**For example,** a firm produces dolls. The stages are; moulding the body parts, attaching the face, making/attaching the clothes and making/attaching the hair. A person could specialise in one stage, or, they could concentrate on only one stage, such as painting the faces on all the dolls.

### Advantages and Disadvantages of Division of Labour

Division of labour provides efficiency for a firm as the time spent switching between tasks is reduced. Practice makes perfect: people become experts at one task and so will become experts as they repeat the task.

Workers may become experts at a task, but they may also find that they are unable to switch to other tasks as they have left themselves unskilled in many other areas. On the whole, an economy can experience structural unemployment from division of labour. Division of labour can also lead to decreased levels of staff motivation. Workers may even find that their roles become repetitive, leading to a decrease in productivity and increasing mistakes committed.

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### 1.2.4 Questions

7. The 2008 financial crisis had a massive effect on economies around many to decrease their levels of production. Explain why this decrease has consequences for other countries, too.
8. Clay Creations Ltd is a small manufacturer of pottery goods, such as mugs. The business is run by its owner, who employs five pottery workers. The business is organised so that each worker has a hand in every stage of the process, i.e. design, creation, firing in the kiln and glazing. However, single workers are the business's most popular and so the owner is considering focusing each worker purely on design and then assigning each other work tasks, such as only creating or only glazing.

Advise the owner on whether to reorganise the business so that each worker focuses on one element. Consider both the advantages and disadvantages of specialisation.



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## 1.2.5 The Wider Economy

Many of the economic measures and policy tools below are explained and revisited in the next course. However, the point of them here is to explore their implications to business in the economic environment in which businesses operate.

### Interest Rates

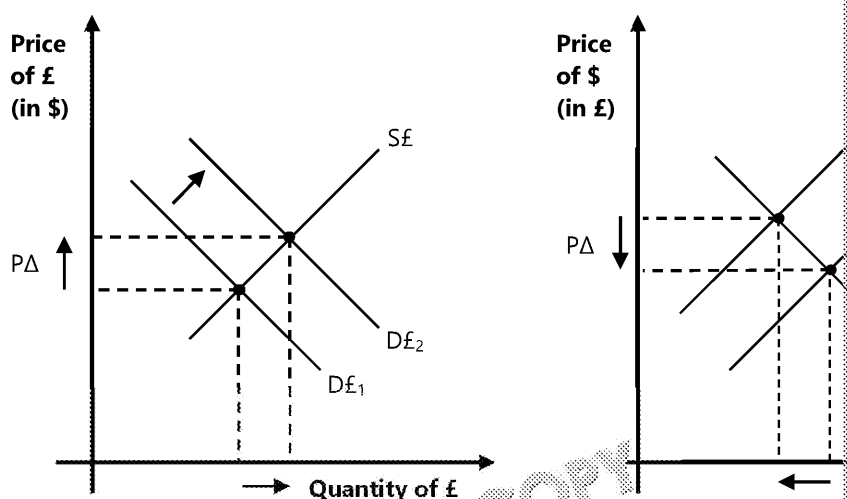
Firms may need to borrow money in order to invest. Interest rates determine how much they have to pay back when they borrow money. If interest rates go up, the cost of borrowing increases and firms are less likely to invest. Equally, investing money has an opportunity cost. The return a firm gets from investing is the interest the firm would receive from saving the money. Because interest rates are the return a firm gains from saving, the effects of interest rates on investment are twofold. If interest rates go up, borrowing becomes more expensive and its opportunity cost also increases; therefore, firms are less likely to invest.

Falling interest rates will increase demand for firms' goods. This is because consumer saving will fall and they are more likely to go out and spend their money rather than saving. If borrowing has fallen, consumers are more likely to borrow money in order to spend. Therefore, a decrease in interest rates will cause an increase in demand for the goods and services of businesses, increasing their revenues and profits.

### Exchange Rates

When a good is bought, an amount of money is given over 'in exchange' for the good. The exchange rate shows how much of one currency (exchanged) for another currency, or, the value of one currency (e.g. £) in terms of another (e.g. \$).

If an American consumer decides to buy a British good then they will need to change their dollars into British currency (£s) because the good is valued in £s.



Let's look at the exchange rate of \$ as a currency and how this transaction would change the foreign exchange market. The top graph shows the demand and supply of £, the currency of the UK. The y-axis is 'Price of £ (in \$)' and the x-axis is 'Quantity of £'. The price of £s is shown in \$. The bottom graph shows the demand and supply of \$, the currency of the US. The y-axis is 'Price of \$ (in £)' and the x-axis is 'Quantity of \$'. The price of \$s is shown in £.

As the American wishes to buy £s, the demand for £s increases from  $D£_1$  to  $D£_2$ . The equilibrium price of £s increases by  $PΔ$ . The value of the £ has appreciated, this means the purchasing power of the £ has increased; the £ can buy more \$s than before. As they sell their \$s for £s, the supply of \$s decreases from  $S\$_1$  to  $S\$_2$  and the price of \$s decreases by  $PΔ$ . The \$ has depreciated in the value, this means the purchasing power of the \$ has fallen and it can buy less £.

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### So how does this affect business...?

If the £ **appreciates**, then UK goods will appear more expensive in comparison to foreign goods (if the currency stays the same; *ceteris paribus*). UK businesses will lose 'international competitive advantage' and demand for UK goods will fall and demand for foreign goods will rise; demand for imports will rise. If the £ **depreciates**, UK goods appear cheaper in relation to foreign goods and demand for exports will rise, and domestic consumers will shift away from buying imports so that demand for exports will rise.

For exporting companies, the exchange rate affects the relative price of their goods in foreign markets for their goods. An appreciation can mean a fall in demand (and, therefore, revenue) in foreign markets, while a depreciation mean a rise in demand (and, therefore, revenue).

For importing companies, the exchange rate affects their costs. If firms import foreign goods or import input materials for production, then an **appreciation** of the foreign currency will mean a fall in the cost of the products they are purchasing and thus will increase their profit margins. A **depreciation** of the foreign currency will mean a rise in the cost of the products and thus decrease their profit margins.

### Ceteris Paribus

This is one of the most important simplifications in economics. It means 'with all else equal'.

Let's use an example:

The prediction that 'you will be colder on a snowy day than you would be on a sunny day' is a simplification. There are many variables that come with this. The case may be, for instance, that you stay indoors on a snowy day and have the heating on full and remain warm. Or, if you do go outside, you might wear a thermal jacket and a hat. On a sunny day, you may even be warmer than you would be on a sunny day, especially if the wind is strong. *Ceteris paribus* means that you assume all these other varying conditions do not change. It allows you to focus on how the outcome may differ if this one condition changes. You will be colder on a snowy day if wind speeds, surroundings and clothes worn remain the same on both days).

## Taxation

**Indirect taxes** are taxes that are imposed on an economic agent but are not paid directly by that agent. They are imposed on a producer but are passed on to a consumer. The tax is indirectly paid by the consumer. The consumer does not have to pay the tax, as in, they can choose not to buy the product that is taxed. Examples of indirect taxes are on fuel or other goods and services are indirect taxes; VAT is an indirect tax, although there are very few goods/services the tax doesn't apply to.

**Direct taxes** are paid directly by the economic agent that they are imposed upon. The tax is imposed on an agent and is paid directly by that agent to the government. Examples of direct taxes are income tax through consumption choice.

Taxes affect firms because they are a cost to firms. If the government increases taxes, firms will have to pay more money away and will then have less money left. Equally, as taxes increase, firms will have to raise the price of their goods in order to cover this. Increased prices will mean a loss of customers.

If the government increases income tax, although this affects households, it still has an effect on firms. If taxes mean that consumers have less disposable income. If consumers have less disposable income, they will spend less money on goods and so firms will see a fall in demand for their goods.

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## Unemployment

Unemployed workers are not receiving an income and will find they are less able to spend. This means consumers will reduce their spending. Falling incomes and falling spending means demand for goods will fall and they will lose revenue.

If employment is high, firms would have to offer higher than existing wages in order to attract workers to their current jobs and work for them instead. High levels of unemployment mean that workers and firms can offer lower wages because a low wage is better than no wage. However, if unemployment means fewer customers are consuming firm's products, it is relative to production because there is a pool of unused labour to employ.

## Inflation

Inflation impacts consumers, business and the economy in many ways. Changing prices on their labels, print new menus, etc. Changing prices on machines, tills, vending machines. This is disconcerting for firms and can create uncertainty for future planning.


If prices increase, the cost of living increases. Increased living costs mean that consumers have less money to spend, therefore, demand falls. Firms will find their sales and revenues fall. Increasing prices also increases their costs.

It additionally impacts those firms that interact on the global market. As UK prices become more expensive on the global market in comparison to foreign goods. Therefore, inflation reduces competitiveness as it makes goods and services appear relatively expensive.

However, if inflation is anticipated, firms and governments can include it in planning and mitigate its effects. Unanticipated inflation can throw off plans and lead to problems.

### 1.2.5 Questions

9. Complete the following table to show either benefits or drawbacks of an inflated economy.

Effects to businesses from an inflated economy	
<ul style="list-style-type: none"> <li>Businesses can increase their prices without raising suspicion</li> <li>Consumers may become price-sensitive</li> <li>Business cash flow becomes much tighter</li> <li>It raises the value of property and stock</li> <li>Suppliers are able to increase their prices</li> <li>Company workers make demands for higher pay</li> </ul>	
Benefits	Drawbacks
	

10. Outward Bound Ltd is an exporter of toys based in the UK. The company has a group of buyers in China and the USA and is making a reasonable profit.

Explain how Outward Bound Ltd might be affected if:

- China's currency appreciates
- The USA's currency depreciates
- The UK's currency appreciates

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## 1.2 Keywords

<b>Factors of Production</b>	Inputs used to produce goods and services: land, labour, raw materials.
<b>Add Value</b>	When a business turns the sum of raw materials into a product. Value added is calculated as: Selling price of product/service - cost of raw materials. Value added can be calculated for a product/service.
<b>Specialisation</b>	When a factor of production (such as labour) is devoted to a specific task, the effect being an increase in efficiency.
<b>Division of Labour</b>	When the productive process is split so each individual stage is done by different workers. This can improve the speed and efficiency of overall production, as discussed by Adam Smith.
<b>Interest Rate</b>	The amount paid by borrowers of money to the lenders. An interest rate is the amount that commercial banks pay the central bank to borrow money.
<b>Exchange Rate</b>	The price of one country's currency in terms of another.
<b>Direct Tax</b>	A tax that is paid directly by the individual or organisation to the government. These sorts of taxes can be avoided through consumption of goods and services.
<b>Indirect Tax</b>	A tax that is collected by an intermediary between the consumer and the producer. These sorts of taxes can be avoided through consumption of goods and services.
<b>Inflation</b>	An increase in the price level of goods and services over a period of time.
<b>Unemployment</b>	The percentage of people in an economy who are economically inactive or without employment.



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## 1.3 Introducing the Market

### Economics Background...

In economics, certain assumptions are made in order to simplify the complex process of an economy. One common assumption is the belief that economic agents are 'rational'.

- In terms of consumers, economists assume that they will make the best choice of option that makes them happiest without influence or bias. In other words, they will maximise their utility.
- In terms of firms, economists assume that they will make the best decision that makes the most money without influence or bias. In other words, they will maximise their profits.

Unfortunately this is only an assumption and economic agents may not always act rationally. This could undermine any model based on this assumption and their predictions could be inaccurate. Important decisions in running the economy or running private business are not always based on rational decisions. Inaccurate information and incorrect assumption could mean the wrong decision is made. It is always important to consider the assumptions and to contemplate how the outcome might differ from them, for example, when consumers act irrationally.

There are many reasons why a consumer may decide on an irrational choice over the most efficient at creating happiness. Habitual behaviour is the idea that consumers choose a product because they are used to buying that product, making a habit out of certain behaviour. This becomes a default one and they are unlikely to change.

The topic of consumer behaviour is one that is studied heavily by 'behavioural economics'. A well-known behavioural economist and it may be interesting to look at his blog.

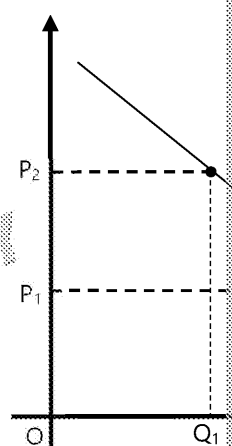
### 1.3.1 Demand

If you demand something, you want it; consumers demand goods and goods are demanded. A demand curve shows the relationship between the amount of a good that is demanded (quantity demanded) and the price a person is willing to pay at each quantity. It is determined by consumers' decisions on how to use their resources to maximise their satisfaction. The diagram shows a demand curve.

A demand curve can show each individual consumer's demand for a good, or, if all the individual consumers' demand curves are collected together, a demand curve can show the total demand for a good; the demand that it is in the entire market.

The law of demand is, as price rises the quantity demanded falls. This creates a negative-sloping demand curve. There are exceptions such as Veblen goods and Giffen goods, but for the exam. There are three main reasons listed below for the inverse relationship that help to further your understanding of demand.

Price (£)



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### 1. Income Effect

You are able to buy more of a good with a set amount of money if the price of the good falls (you can buy more with a fiver if the item price is 50p than you could if it was 60p). This is known as 'purchasing power': as price falls your purchasing power rises (your ability to buy goods increases). Whereas, if the price for a good rises, your money can't go as far. In other words, your purchasing power falls because the potential quantity of the good you can buy will decrease.

In summary... price goes up, quantity falls: price goes down, quantity rises.

### 2. Substitute Effect

As the price for something falls it will appear cheaper in comparison to other goods (if other goods remain at the same price). It is likely people will switch from buying the more expensive good to this (cheaper) good. Therefore, the number of people demanding (wanting) the good will increase.

Equally, as the price rises the good will appear more expensive and people will switch to other goods. Demand will fall as less people start demanding the good.

In summary... price goes up, demand falls: price goes down, demand rises.

### 3. Diminishing Marginal Utility

You buy goods to satisfy your want for a good. But, each consecutive good you buy will satisfy you a little less than the one previously. Say, for instance, you want a cookie. The first cookie satisfied your want for the cookie, the second one does again still but perhaps not as much as the first one. Again this happens with the third or fourth cookie, bringing you some happiness but not quite as much as the previous cookie. There may even be a point where you become sick of cookies and the next one is dissatisfying.

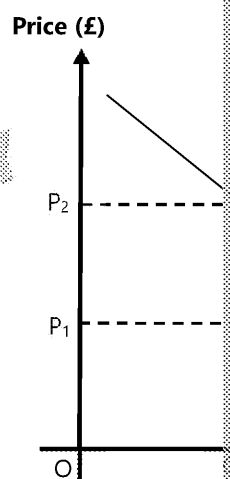
**Diminishing** = reducing  
**Marginal** = next one along / consecutive  
**Utility** = happiness

On the curve, this can be shown as for the first good ( $Q_1$ ) you are happy to pay  $P_1$  and for the second good ( $Q_2$ ) you are less happy with and are only willing to pay  $P_2$  prices.

### Movements and Shifts in the Demand Curve

Movements along the demand curve are when you move up and down the curve without the curve moving. For each quantity demanded there is a different price which reflects the consumer's willingness to pay and vice versa.

A shift in the demand curve is when there is a change in quantity demanded at every price level. The whole curve will shift to either the left or right. As can be seen in the diagram, for a shift outwards of the demand curve from  $D_a$  to  $D_b$ , the quantity demanded at  $P_1$  has increased from  $Q_{1a}$  to  $Q_{1b}$  and the quantity demanded at  $P_2$  has increased from  $Q_{2a}$  to  $Q_{2b}$ . This means the consumer is willing to pay more for a greater number of goods. This happens when there is a change in the conditions of demand.



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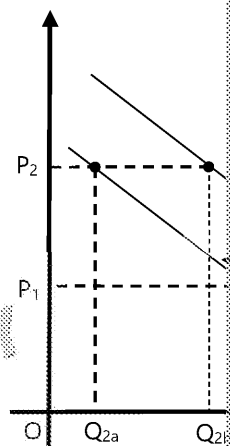
Shifts can be caused by:

- **Changes in Preferences, Fashions**

(advertising, branding and publicity)

The horsemeat scandal in 2013 caused a shift in the demand curve in the market for microwavable meals containing beef. As it was found out that a lot of the meals had contained horsemeat instead of beef, consumers shifted their preference away from these products. The demand for these products fell and the curve would have shifted inwards. Similarly, if it was found that a certain product was good for you, it would likely shift the demand curve out. Over the last 50 years or so, the preference for lamb has increased; meaning the demand for lamb has shifted out and this is why lamb prices have risen over the years.

Price (£)



- **Seasonal**

This is similar to the changes in preference. Some demand curves shift with the seasons. For example, demand for certain goods will increase during the Christmas season. The demand for airline tickets will increase during the Christmas season, which explains why ticket prices increase.

- **Changes in Demographics** (size and age of population)

People of different ages demand different goods and services; therefore, as demographics change, it is likely the demand for certain goods will change. For example, demand for baby products, whereas an ageing population is likely to increase demand for retirement products.

- **Change in Income**

If peoples' incomes rise, they are able to buy more goods and it is assumed demand will increase. It is unknown exactly which goods will be demanded but we can see some kind of change in their demand.

- **Changes in Prices for Other Goods** (price of substitutes and complements)

If the price of cola was to increase, some people are likely to swap to lemonade. The demand for lemonade will shift out as people are willing to pay more for each quantity. If the price of cola falls, it is likely people will buy more cola and also mint sauce. This fall in the price of cola shifts the demand curve for mint sauce out.

### 1.3.1 Questions

1. Why is the demand curve downward-sloping?
2. What factors might cause the demand curve to *shift*?

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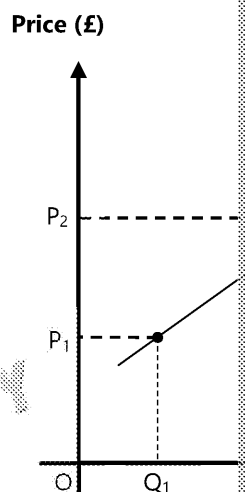
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## 1.3.2 Supply

A firm will manufacture (produce) and supply (provide) a good to the market. A supply curve shows the relationship between the amount of a good that is supplied (quantity supplied) and the price of the good at each quantity. It is determined by producers' decisions on the quantity of goods to produce depending on their costs of production and price of their goods. The diagram shows a supply curve.

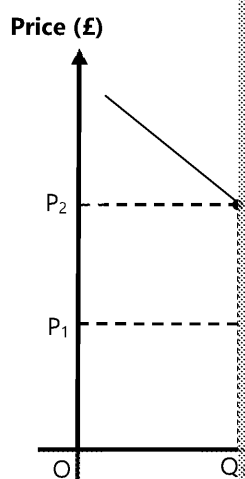
The supply curve is, usually, a positive slope. There are exceptions to this, there are goods with 'backwards-bending' supply curves, but you are not required to know this for the exam. The supply curve has a positive slope because the higher the price a good will sell at, the more willing a firm is to produce that good, ergo, quantity supplied increases with rising prices.



### Movements and Shifts in the Supply Curve

**Movements along** the supply curve are when you move up and down the curve without the curve moving. For each quantity supplied there is a different price and vice versa.

A **shift** in the supply curve is when there is a change in quantity supplied at every price level. The whole curve will shift to either the left or right. As can be seen in the diagram, for a shift outwards of the supply curve from  $S_a$  to  $S_b$ , the quantity supplied at  $P_1$  has decreased from  $Q_{1a}$  to  $Q_{1b}$ , and the quantity supplied at  $P_2$  has decreased from  $Q_{2a}$  to  $Q_{2b}$ . This happens when the conditions of supply change.

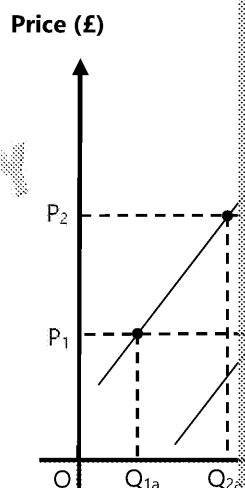


Shifts in the supply curve can be caused by:

- **Changes in the Costs of Production**

The supply of a good depends on the cost of making the good; this includes materials, labour, the machines used, electricity bills, etc. If these input costs increase then less can be produced and supplied at every price level and similarly, if input costs fall more can be produced at every price level.

For example, the most common input cost is oil price; oil is used to create energy and run machinery. The effects of oil prices are felt by all businesses and are a large proportion of costs. Therefore, an increase in oil prices will shift the supply curve in.



- **New Technology**

New technology can increase the efficiency of production by either improving capital or the techniques used to make the efficient a firm is able to produce more and thereby shift the supply curve produced at each price level.

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- **Indirect Taxes**

Indirect taxes are taxes that people pay indirectly; by this it is meant they pay for goods rather than being taxed directly via income tax, for example. Indirect taxes are levied on goods and services. If indirect taxes increase then the cost of the good will increase and thus the producer will be less willing to produce goods for the decreased profits.

- **Subsidies**

Subsidies have an opposite effect to taxes on the cost of goods. Subsidies are payments from government to support employers by funding some of the costs of production. This makes firms more able to supply goods and thus supply will increase.

- **Number of Firms**

Greater numbers of producers mean there will be a greater supply of a good. When firms leave a market, they will reduce the supply within the market. A key thing to remember about the number of firms within a market is that other firms may enter the market to compete via prices, which will lead to encourage consumers to their products and thus have a downward pressure on price. A greater number of firms in a market means that the supply will increase and this will have a downward pressure on prices and encourage firms to increase efficiency.

- **External Shocks**

External shocks are things that happen outside of an economy but can still affect it. The 2008 financial crisis started in the US sub-prime mortgage market but this had a global impact. External shocks can cause economy-wide recession, or increase the cost of raw materials, or cause taxes to rise and fall, or cause more or fewer firms to leave the market. External shocks can have an effect on supply.

### 1.3.2 Questions

3. Why is the supply curve upward-sloping?
4. What factors might cause the supply curve to *shift*?



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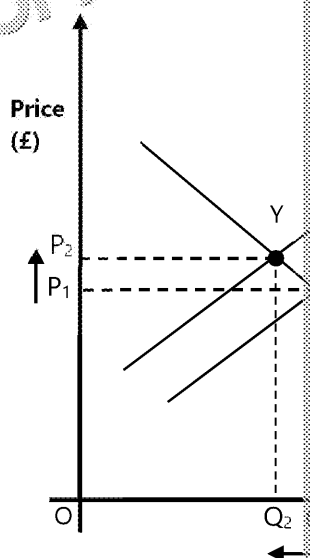
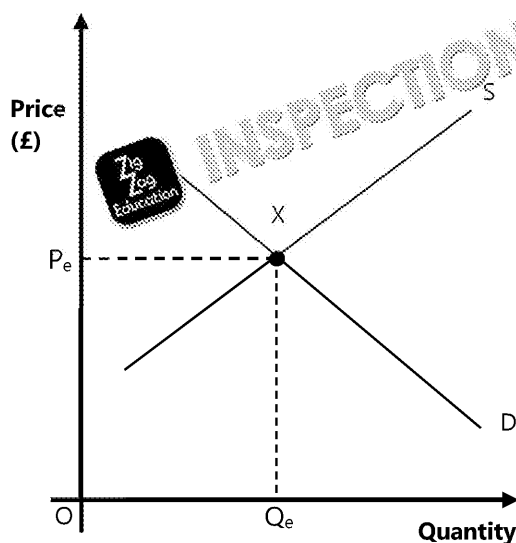


### 1.3.3 Price Determination

Price of a good is determined by the market and interaction of supply and demand where supply meets demand; the point where the price of the good means the volume willing to buy is the same volume producers are willing to sell. Point X is the market equilibrium where the supply curve intersects the demand curve. The market equilibrium price is  $P_e$  and quantity is  $Q_e$ .

A drought would mean the supply of corn is reduced and supply curve will shift inwards to a new equilibrium point with a new equilibrium price and quantity.

A shift of either curve in any direction would affect the market equilibrium point, price and quantity.



Economics has theories and makes predictions. In order to make these theories and predictions observations are undertaken, findings are analysed and models are found. This is done by identifying a problem, capturing the fundamentals of a situation and simplifying the rest in order to make the model as close to reality as possible without any complexities. These simplified details can change the outcome in reality and, therefore, it is important to consider which assumptions are used and to reflect on these assumptions when making a prediction.

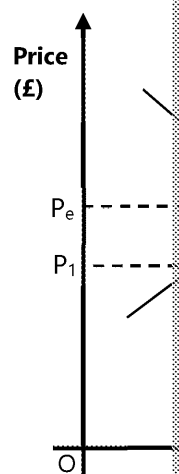
#### Activity

Draw your own supply and demand graph. Show the market equilibrium. Then shift either the supply or demand curve and notice how the equilibrium price and quantity change.

#### Excess Demand

A situation that results in an excess of demand is different from a shortage. It is caused by shifting the demand curve. An example would be a price cap on energy prices. The market equilibrium price for energy would be  $P_e$ ; however, there is a capped price at  $P_1$ . This is the maximum price that can be charged for energy. At this price the quantity supplied is  $Q_s$  and the quantity demanded is at  $Q_d$ .  $Q_d$  is greater than  $Q_s$ ; therefore, there is an excess of demand.

In a situation without a rule or regulation to keep the price at this level, the market forces would increase the price back to equilibrium. If a price for a good was lower than the price customers were willing to pay then there would be a shortage of  $Q_s$  to  $Q_d$  as more customers would be willing to buy the product at this price than producers would be willing to supply it.



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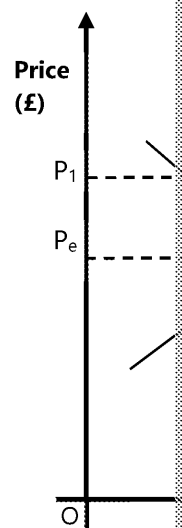


Some customers would be willing to pay for the good and offer a higher price to realise that customers are willing to pay more and will increase prices to gain more.

Any deviation will gravitate back towards equilibrium.

### Excess Supply

A situation that results in an excess of demand is different to shifting the demand curve. An example would be the national minimum wage. In this situation,  $P_e$  is the market equilibrium price for labour (wage) and  $P_1$  is the minimum price for labour (minimum wage). At this price the quantity supplied is  $Q_s$  and the quantity demanded is  $Q_d$ ; because  $Q_s$  is bigger than  $Q_d$  there is an excess of supply. In reality, this excess represents excess labour, or, unemployed labour. The fact that the minimum wage is set to the equilibrium the less excess supply is created.



In a situation where you have a price floor or regulation to keep the price at this level, the market forces would force the price back to equilibrium. If the price for a good was higher than the market equilibrium, this means not enough customers are willing to purchase the good for this price. Businesses would have to lower their prices again in order to entice customers back. As a response to the lowering price, more customers would want to buy the good and the excess supply would decrease.

Any deviation from the equilibrium will gravitate back towards equilibrium.

### Limitations of the supply and demand model

Of course, this is a simplified model. Recall the idea of 'ceteris paribus' that was discussed in the previous section. The simple model of supply and demand makes several assumptions. For example, it assumes that firms have the *market power* to charge prices above the equilibrium rate. In reality, many firms do not have this power due to factors such as brand loyalty, advertising and differing product quality. Therefore, the predictions of the model might not always be strictly true.

You will learn more about differing levels of competition within industries, and its implications for the supply and demand models, in the *Theme 2* component of your course.

Another issue is human behaviour. The model of supply and demand assumes that consumers weigh up all the pros and cons of a choice before making a decision, and can accurately predict the personal benefit the purchase of a good will bring. Of course, this is not true. Humans are prone to all sorts of biases and mental shortcuts when making decisions about what to buy (see the case of consumers). This can mean that supply and demand models are unrealistic.

### 1.3.3 Questions

5. Explain, with reference to supply and demand curves, how a good that is **over-supplied** will decrease in price.
6. What is meant by the term 'ceteris paribus' and why is this important?

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### 1.3.4 Price Mechanism

In the first part of this course companion we looked at the idea of the 'basic economic problem' that because resources are limited we cannot satisfy all our wants and needs. In a market economy, the problem is resolved through the price mechanism. Resources are (with exceptions) allocated to those who value them the most.

Firms need to determine what they should produce and the most efficient way to produce it. They also need to determine who to buy their good from and whether they are willing and able to pay for it. The price mechanism refers to the effect that price has on demand and supply. The market, the interaction of demand and supply, and the price mechanism can help determine this allocation of resources. For example, if the price of a good falls, consumers who will switch their consumption from expensive goods to cheap goods, increasing the demand and so firms are likely to stop producing in that market. The resources that were freed up and will then be allocated to more efficient firms within the market, or be used to produce more demanded goods.

There are three functions of the price mechanism:

#### 1. Rationing

Higher prices can ration (limit) demand to meet supply. If, for example, a resource is scarce, the price of the good that uses that resource will increase. Fewer people are willing to pay the higher price, so the quantity demanded falls. The good is then allocated to only those who are willing to pay the highest price, those that value it the most.

#### 2. Incentive

The price mechanism encourages producers and consumers to behave in a certain way. If the price of a good rises, this encourages producers to raise the output of their goods and consumers to reduce their demand. There is the *incentive* to produce more because revenue will be higher.

#### 3. Signalling

The price mechanism sends a signal to customers and producers that there has been a change in demand and/or supply. If demand decreases, prices will fall and this indicates that producers should produce fewer goods they produce.

On occasion these functions of the price mechanism will not lead to the most efficient allocation of resources and the government may have to intervene. This is known as *market failure*.

### How Firms Respond to a Change in Demand

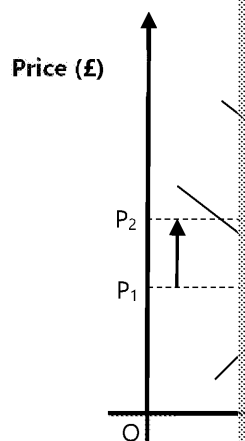
Many factors, such as technological breakthroughs, can create a change in demand. Firms respond to a change in price.

#### Increase in Demand

When there is a spike in consumer demand, producers will often raise their prices accordingly. Following an increase in price, producers are willing to produce more goods as profitability is higher.

An increase in demand may come from a sudden change in fashion trends or, for example, where consumers want the latest watch or to catch a certain television show.

Increases in demand shift the demand curve to the right, which moves the market equilibrium from  $X_1$  to  $X_2$ .



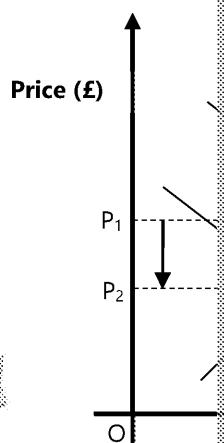
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## Decrease in Demand

When demand falls, suppliers will normally lower their prices (from  $P_1$  to  $P_2$ ), but they will increase the quantity of goods they are prepared to produce. Any producers that still offer goods at  $P_1$  will find they have a surplus (more goods than demand).

A decrease in demand might occur due to seasonality, such as the rise of ice cream sales in summer, or from an external shock such as a sudden outbreak of disease. Decreases in demand shift the demand curve to the left, which moves the market equilibrium from  $X_1$  to  $X_2$ .

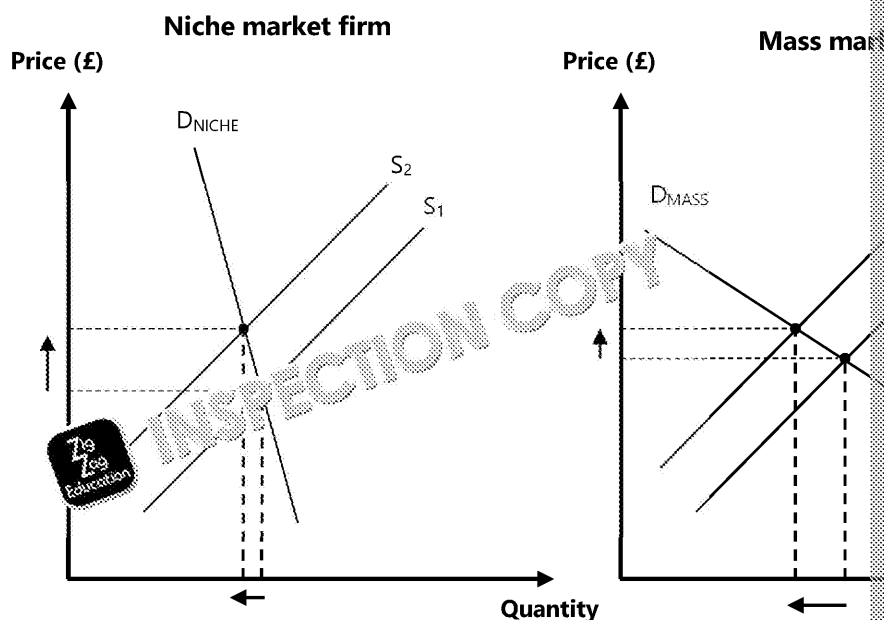


## The Price Mechanism in the Context of Different Market Types

The price mechanism works differently depending on the type of market. In a niche market their products on a *niche* scale or on a *mass* scale targeting small consumer groups and selling small quantities. By contrast, if a firm has many similar products on offer – but also more customers.

Niche Markets	Mass Markets
<ul style="list-style-type: none"> <li>Few customers</li> <li>Strong brand loyalty</li> <li>Highly specialised firms</li> <li>High-quality goods</li> <li>Lower competition</li> <li>Higher Prices</li> </ul>	<ul style="list-style-type: none"> <li>Many customers</li> <li>Customers with low loyalty</li> <li>High sales volume</li> <li>Lower-quality goods</li> <li>Lower risk (firm)</li> <li>Lower prices</li> </ul>

This means that the price mechanism works differently. In a niche market, consumers are more loyal, which means that their demand for goods and services is not so responsive to changes in price. The following demand curves for niche and mass markets:



The price mechanism dictates that an upward shift in supply will cause prices to be higher. In a niche market, the demand curve is steep (more vertical). Customers are more loyal and are willing to pay more for certain brands. This means that although the price increases by a large amount, the quantity only decreases a slight amount (see diagram on left).

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By contrast, the demand curve for a firm operating in a mass market will be much flatter. A firm in a mass market will increase prices – but reduce the quantity sold by a *proportionately higher* amount.

These diagrams show how the price mechanism means that firms operating in niche markets can charge higher prices (but achieve lower sales).

### Potential Market Growth

No market is static for very long as there are always changes arising from:

1. *Seasonal* factors
2. Consumer *tastes*
3. Consumer *attitudes*
4. Government *regulations*
5. The availability of *new technologies*
6. *New competitors* entering the market
7. Changes in business *structure* and *outsourcing*

For these reasons, businesses must be able to *recognise market trends*. A trend is the *general direction* in which things *tend to move*. For example, one current trend in marketing is for businesses to utilise social media. Firms around the world recognise how important a role the Internet plays in people's lives and so now invest heavily in their social media presences and online advertising.

It is important for a business to *review and analyse* such trends so that it can:

1. Make *better* decisions
2. Modify forecasts and set *realistic* targets in response to a trend
3. Anticipate and deliver the *right* resources to the *right* places at the *right* time
4. Recognise opportunities for *innovation and improvement* on its product or service
5. Develop a *strategic vision* and formulate *alternative futures* for its product or service

### 1.3.4 Questions

7. What are the three functions of the price mechanism?
8. Are prices likely to be higher or lower in a niche market when compared to a mass market?

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### 1.3.5 Understanding the Consumer

#### Primary and Secondary Market Research Data

Have you ever been stopped in the street to answer a few questions or received a survey? If you answered 'yes', then you have taken part in market research.

Firms conduct market research by *collecting and analysing data* gathered from the market. They can collect this data themselves (through email surveys or competitions, for example) or use the services of *specialist market-research agencies*.

#### Primary Research

Primary research is *original research*, which involves gathering information *directly* from potential consumers. This can be carried out using face-to-face interviews, telephone interviews, postal surveys, web forms, email, observations, focus groups, consumer panels and test marketing.

Businesses often create *questionnaires* for use in primary research. They must take care, though, as the following points should be considered when producing questionnaires:

1. How will the survey be *conducted*? (E.g. by face-to-face interview, by post, by telephone or over the Internet?) This will determine the *structure* of the questionnaire.
2. What is the *objective* of this survey?
3. How many *questions* will be asked?
4. Does the survey have any 'loaded' questions?
5. Are any of the questions *ambiguous*?

Advantages of using primary research:

- ✓ It finds *new* information about the target market.
- ✓ It reveals *relevant* and *up-to-date* information on the target market.
- ✓ It allows the business to *concentrate time and money* on its target market.

Disadvantages of using primary research:

- × It is *time-consuming* and *expensive*.
- × The *accuracy* and *reliability* of the data collected can depend on the *profession* of the researcher and the *structure* of the questions asked.
- × The validity of the answers obtained depends on the *mood of the interviewee* and the *opinion* of the population as a whole.

#### Secondary Research

Secondary research is the collection of data from information that *already exists*. This can be found in business archives, market reports, government data, articles, the Internet, newspaper and magazines, journals. *Remember: all secondary research is based on primary research!*

Advantages of using secondary research:

- ✓ It is *cheaper* and *quicker* to carry out than field research.
- ✓ Data is collected about the *whole mass market*, rather than just the target market.
- ✓ It allows the business to examine *trends* in its market.

Disadvantages of using secondary research:

- × The *reliability* of historic data must be treated with caution.
- × Secondary data is time-dependent: it may have been collected *with a specific purpose* (e.g. for one company in the data may no longer exist), which does not *relate* to the business's needs.
- × This historical data may also be *available to competitors*.

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### Quantitative or Qualitative?

Unlike primary and secondary research data, which differ in the way they are gathered, research differ in the way they are documented.

**Quantitative research** asks *closed questions*, such as 'how many hours do you spend on the internet?' or 'what is your favourite food?' The questions have very little scope for development beyond a sentence answer and are generally presented in numerical form, such as line graphs.

**Qualitative research**, on the other hand, asks *open questions*, such as 'why do you like this food?' or 'what food do you associate with your childhood and why?' These questions are open-ended and an interviewee can give as long or short an answer as they like. The end result is generally more descriptive than statistics, allowing the researcher to investigate any themes that stretch across the data.

Primary and secondary research can be both qualitative (e.g. primary high-street interviews) and quantitative (e.g. published journal articles) and quantitative (e.g. primary face-to-face questionnaire surveys).



**Effective Market Research** takes both quantitative and qualitative research into consideration to make *more informed* marketing decisions, *reduce risk* and gain potential *competitive advantage*. However, as we saw, market research is costly and time-consuming, but it can help businesses gather valuable information about:

- The *size* of the market
- The *state* of the market (i.e. whether there is demand and if it is growing or shrinking)
- Central *elements* of the market (social, legal, economic, political and technological)
- *Competitors* and their business processes
- What the *public think* about all aspects of their product/service
- The *target markets* (i.e. the market *segment* to which they intend to sell)
- The *structure* of the market (i.e. the type, size and number of competitors)
- Consumer behaviour, their *needs*, *wants* and *price* they are willing to pay

Most market research processes go through the following steps:

1. *Identify* the problem
2. *Decide* on an appropriate method of research
3. *Determine* data type (primary or secondary) and sources
4. *Design* the data capture form
5. *Decide* on where to get the sample and on its size
6. *Collect* the data
7. *Analyse and interpret* the data
8. *Produce* a market research report

### Limitations of Market Research, Sample Size and Bias

While market research has great value, there are some *inherent* problems with the data that businesses collect:

- **Structure:** Data collected may not be *specific enough* to make good marketing decisions; often the *questions asked* are too closed to be really useful.
- **Size:** Because your research says that 65% of the population will buy Kitty deodorant, it doesn't mean they will – this data has come from a sample and may not reflect what happens on a UK-wide scale. How can you be sure that your representative sample is accurate enough to extrapolate the data to a UK level of potential sales?

In other words, how do you know by asking 50 men aged 25–35 from Bourneville to buy Lynx deodorant?

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- **Representation:** Data collected may not take into account regional differences. For example, a company might buy Welsh cakes in Sussex, but market researchers get a very positive response. This is potentially expensively misleading. Regional differences can be subtle, but if they are not taken into account, they can lead to disaster.

Some companies, such as Coca-Cola, take a global approach to their marketing, while others, such as Domino's Pizza, allow each country to handle their own marketing for franchisees.

- **Bias:** When companies collect data, they need to be as fair as possible. If a question is too closed, for instance, it would likely generate a one-sided response from respondents.

The interviewer needs to be fair, too. If the interviewer is looking for a specific type of people that drink milk in each area, they may miss other correlations (e.g. people who don't drink milk).

**Time effects:** A sample that is questioned one year may feel very different to a sample questioned five years later due to any number of factors, including average income, technological innovation, and branding. Companies, therefore, need to sample over a period of time to get a fair picture of their target markets.

Questions to ask when deciding on a method of sampling:

1. What will the *cost* be?
2. Will it prevent sample *bias*?
3. How long will the *process* take?
4. How much *finance* is available?
5. Is it the *best method* for the task?
6. Who and where is the *target market*?
7. Can the population be *divided into groups*?
8. What *type* of product or service is being tested?
9. How *closely* will it *represent* the total population group?

Limitations of the sampling process can be found by asking the following questions:

1. Have the people sampled *told the truth*?
2. Has the 'right' *sample size* been chosen?
3. Has the data been collected *without bias*?
4. Have the appropriate questions been asked?
5. Has the appropriate *target audience* been reached?
6. Has the appropriate sampling technique been used?
7. Have the results of the sample been *correctly analysed*?
8. Has the sampler actually taken the sample, or were the *results fictitious*?

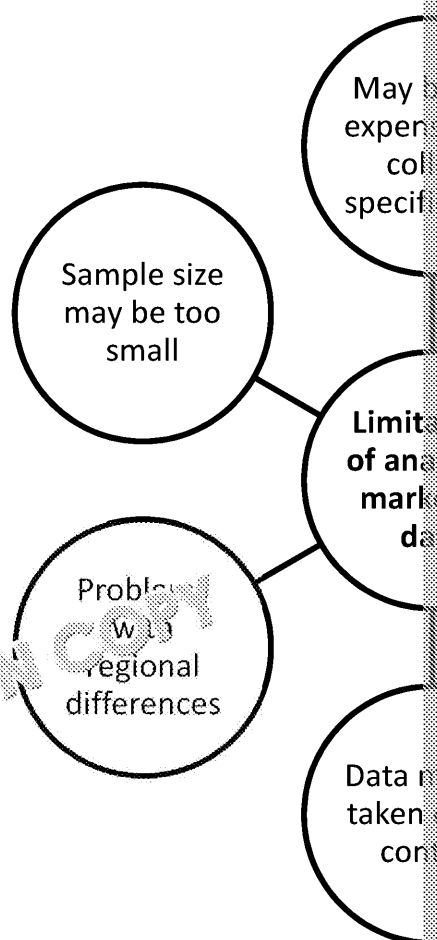


Diagram: The possible problems

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## Market Segmentation

If you peel an orange, you can break it into segments. No two segments are alike for markets.

Businesses split their markets into *segments* in order to understand who the average customer is and what they are willing to pay. Businesses pick out the segment of people that are interested in their product/service and target them. Each segment that a business wishes to target receives a different marketing mix. This process (called *market segmentation*) is conducted to ensure that any marketing campaign will produce a high return.

Market segmentation allows firms to conduct *differentiated* marketing, which focuses on different customer groups. *Undifferentiated* (or mass) marketing treats customers as a *homogeneous* group.

There are four common methods of market segmentation:

1. *Demographic segmentation* is by age, sex, family size, occupation, ethnicity, education and income. For example, a game designed at male children between the ages of 12 and 15, and a textbook for business teachers would be primarily aimed at Business teachers.
2. *Geographic segmentation* is by town, county, country, climate and population. A tourist business, for instance, may segment the market by town, county or even country. A toy company, meanwhile, may use population birth growth rate to segment the market.
3. *Behavioural segmentation* is based on how customers react to, and behave towards a product. For example, analysing customers' brand loyalty, usage, attitudes, responses and price sensitivity can help a business decide on offer.
4. *Psychographic segmentation* involves analysing customers according to their personality, lifestyle and attitudes.

Advantages of market segmentation include:

- ✓ It helps the business get to know its customers.
- ✓ It focuses business strategy on a specific target audience.
- ✓ It encourages the business to specialise to meet the needs of a particular segment.
- ✓ It helps provide focus for the allocation of business resources.

Disadvantages of market segmentation include:

- × It is a costly and time-consuming process.
- × It could lead to the manufacture of too many different products.
- × It could over-narrow the focus of the business.

It is very important that a business targets the right group of customers – those who are most valuable. It is vital to identify these segments correctly. Market segmentation helps businesses to identify their target customers, recognise competitors, measure performance and anticipate future market trends. It is impossible for a business to develop an effective marketing strategy (or 'fine tune' its strategy) unless it has correctly identified the market segments.

### 1.3.5 Questions

9. Is information gathered through market reports considered primary or secondary research?

10. a) Identify two advantages of primary research.  
b) Identify three limitations of market research.

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### 1.3.6 The Competition

#### Market Positioning

Once a business has collected enough data to give a fair picture of its target market, it needs to be able to make sense of it (drawing conclusions). One effective way of doing this is to collate the information into a *market map*. A market map takes two features (e.g. price and size, speed and quantity) and compares them on two axes. This method is particularly useful for start-up companies or firms looking to introduce a new product or way to identify any gaps in the market.

Take a look at the example market map below, which shows newspapers in the UK market.

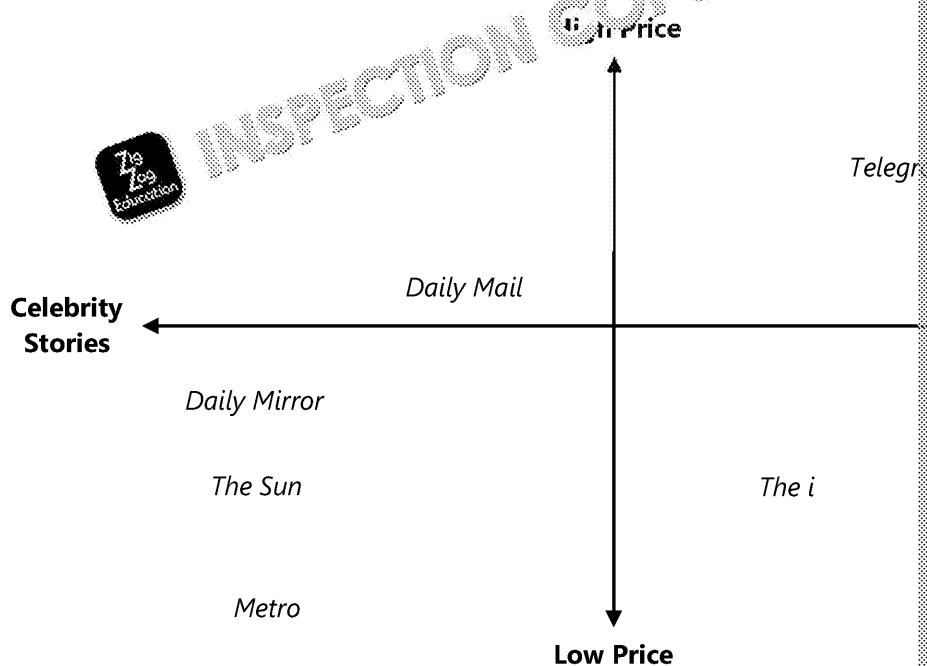


Diagram: Market Positioning

The market map above shows how British newspapers differ by price and content. *The Sun* focuses more on celebrity stories (left of the map) than *The Guardian*, *Telegraph*, *Independent*. *Daily Mirror* and *Metro* are similar in content but differ by price – *Daily Mirror* is the more expensive of the two.

#### Competitive Advantage of a Product or Service

When a company spots a gap in the market, it can use this information to better define what it wants. This helps the company gain *competitive advantage* (or 'an edge') over its rivals. Companies can gain themselves in many ways, such as:

- Reliability of products/services
- Quality
- Price
- Key product features
- Customer service
- Convenience
- Infrastructures able to cope with demand
- Branding and promotion
- Innovation
- Marketing and advertising

Good examples of companies that manage to gain competitive advantage in their markets (e.g. through their strong branding to enter new markets), IKEA (providing quality products at low prices), and Apple (innovate as trends change).

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## The Purpose of Product Differentiation

Companies use *product differentiation* as a way to gain advantage over their competitors by creating a product with distinguishing features (*unique selling points or USPs*) and then market the product so that it stands out from the competition. Sir James Dyson saw a gap in the vacuum market with his invention of the 'bagless' vacuum. Dyson spent years researching and developing the perfect product. Since then, the name Dyson has become synonymous around the world for high quality.

One main benefit of product differentiation for firms is that the producer does not have to compete. If your product is the best quality option on the market and customers know this, they will buy it. Once consumers are choosing your product over others, they may start to pick your brand.

## How Firms Decide on Price and Level of Profit

Companies use pricing strategies to evaluate business decisions based on the market and the consequences that may arise. A company is looking to sell a product or service can determine how much it is worth and how much people would be willing to pay.

### Competitive Pricing

In competitive pricing, there are price leaders (businesses that set the industry standard) and followers (that follow suit). A business using competitive pricing will set its prices depending on what its competitors are charging.

#### Advantages of Competitive Pricing

- ✓ Price is not a competitive advantage for any firm.
- ✓ If a business is the price leader of its market, it gets to make the decisions on how much to charge.

#### Disadvantages of Competitive Pricing

- × Since price is not a competitive advantage, a firm must find another way to compete with its rivals.
- × If a business is a price follower, it is at the mercy of whatever the price leader does with the price.

### Cost-plus Pricing

A business considers all possible costs that go into producing a good/service and then adds a profit margin to determine the selling price.

#### Advantages of Cost-plus Pricing

- ✓ Any price increases that a firm makes are easily justifiable when considering costs.
- ✓ Pricing is easy to calculate and so pricing decisions do not always have to be made by the most senior members of staff.

#### Disadvantages of Cost-plus Pricing

- × Price sensitivity (i.e. how much demand falls when price rises) is not considered.
- × A vicious cycle can occur where a business overestimates its business costs and overestimates its price.

### Penetration Pricing

This is when a business sets an artificially low price for a product/service in order to attract customers and gain market share.

#### Advantages of Penetration Pricing

- ✓ A business using this form of pricing can catch its rivals off guard.
- ✓ Barriers to entry are high for other businesses.

#### Disadvantages of Penetration Pricing

- × A business may wish to raise its prices as consumers may develop a habit of buying at low prices.
- × The reputation of the business may be damaged with low prices and quality.

### Premium Pricing

This is when a business keeps the price of its products/services artificially high.

#### Advantages of Premium Pricing

- ✓ Premium pricing can create the illusion of premium quality.
- ✓ A business's brand then stands out since it is the most expensive one.

#### Disadvantages of Premium Pricing

- × If enough rival companies enter the market, a firm will generate a lot of competition.
- × Purchases from high-income customers will eventually dry up because they will not be able to afford the product.

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## Price Skimming

A business may set an artificially high price for a product before any rivals have entered the market.

### Advantages of Price Skimming

- ✓ The business can reap the rewards of high revenue before anyone else has had a chance to sell.
- ✓ High prices can create a brand image of high quality.

### Disadvantages of Price Skimming

- × There is negative brand image once consumers learn they can purchase more cheaply.
- × If the price is too high, consumers will not purchase at all.

## Predatory Pricing

The dominant firm of a market sets a price so artificially low that it no rival can possibly survive.

### Advantages of Predatory Pricing

- ✓ It is a quick and efficient method of gaining control of the market.
- ✓ At such low prices, a firm can dissuade competition from entering the market and even convince its rivals to leave.

### Disadvantages of Predatory Pricing

- × Predatory pricing is illegal and doing this will be punished.

## 1.3.6 Questions

11. Choose a product type (such as sweets or magazines) and draw a graph with two axes. Examples of axes include price, age group and location. What could the reasons be for this?
12. Give one advantage and one disadvantage of the following:
  - a) Price skimming
  - b) Cost-plus pricing
  - c) Premium pricing

## 1.3 Keywords

<b>Rationing</b>	A function of price, as a resource becomes scarce then its price rises and demand for it.
<b>Incentive</b>	A function of price, as a resource increases in price, suppliers supply more goods as this will earn them higher revenue.
<b>Signalling</b>	A function of price, the idea that price sends messages to consumers whether or not to enter a market. Falling prices will prompt consumers to enter a market, rising prices will prompt producers to enter a market.
<b>Niche Market</b>	A market in which firms target small, specific consumer groups and charge a higher price. In order to achieve this, businesses focus on producing high-quality goods.
<b>Mass Market</b>	A market in which many firms sell many goods. Prices are likely to be lower, but quality may also be lower. Customers will have more choice.

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## 1.4 The Role of Credit in the Economy

Businesses might require loans for several reasons. Entrepreneurs might take on a loan when setting up a business. This includes the large costs of acquiring premises and equipment, and the costs of wages and materials required for production that may not be immediately profitable. Businesses might also want to borrow money to expand their operations. In this section we will look at the important role in the economy.

### 1.4.1 Role of Banks in the Economy

Banks and financial services play a large role in our economy, contributing about 10% of GDP. In this section we will look at the role of banks in the economy with a focus on the services that they provide to businesses.

#### Channelling Savings towards Investment, and Providing Credit

Banks and other financial institutions are known as 'financial intermediaries'. This is because they provide an indirect link (they 'inter-mediate') between those that want to save and individuals or businesses that want to borrow. Finance can be provided in different forms. It's important to distinguish between secured and unsecured loans. A secured loan is backed out against property or another type of asset. If the debtor cannot repay the loan, then the creditor (the bank) can claim the property or asset as payment instead. An unsecured loan is not backed up with any asset.

As well as long-term loans, banks will provide specific types of accounts to businesses to help with day-to-day actions such as paying staff and bills. Just like accounts for individuals, business accounts can provide overdrafts, which give the option of short-term borrowing to help with the cash flow if it is irregular. Direct debits can be used to pay utility bills. Businesses also have access to credit cards, as well as statements and online banking.

Firms can also take out mortgages – just like individuals buying houses – for property. Banks can provide advice about this, and other services, particularly to new enterprises. More established firms can also issue shares which can also be arranged by banks or other financial institutions.

#### ***Would you be willing to lend money to someone for 25 years – even if you never get it back?***

People want to save or borrow money for different lengths of time. Banks allow people to do this by pooling all of the money together. One of the most common forms of borrowing is for periods of 25 years. A bank will have many small depositors holding savings accounts. These depositors will require access to the money over relatively short periods because it's highly unlikely they will want access to that money at the same time. Banks provide money out over longer periods – for example, to those buying a house.

#### ***Why might a company need access to finance?***

Here are a few possible reasons:

- To cover the start-up costs of running a new business
- In order to expand operations, perhaps buying new factories or taking on new staff
- To cover day-to-day expenses if revenue is less frequent

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## Interest Rates and Collateral

An interest rate is the cost of borrowing money. If a company borrows £1,000 at a 5% interest rate, it will have to repay £1,100. If a loan is unsecured then the interest rate will be higher. The risk to the lender is higher because there is no *collateral*. This is reflected in the higher interest rate agreed over a certain time frame with regular repayments. For example, a firm might borrow £1,000 over 5 years. The firm will most likely be required to repay instalments of this per month with interest due.

Business overdrafts, if planned, are interest free. If not planned then the interest charged is on the amount overdrawn each day. If a company is £1,000 overdrawn beyond the planned limit, it will pay  $\frac{1}{365}$  of the annual interest rate on the £1,000.

### 1.4.1 Questions

1. Which is more secure for a borrower – a secured or an unsecured loan?
2. Explain why companies might need access to finance.

### 1.4.2 Risk and Liability

Entrepreneurs run into *risk* and *uncertainty* whenever they make decisions. These can involve anything from expanding a production line or hiring more staff to moving to new locations, buying equipment or making capital investment. The decision could even be whether to give up a comfortable job in order to pursue a business venture.

Every decision carries with it a degree of *risk* or *uncertainty* and potential for *reward* (the entrepreneur expects to get out of the business decision if it is successful). The words 'risk' and 'uncertainty' mean the same thing; however, a subtle distinction can be made between them.

**Uncertainty:** this is a negative effect that comes from the general course of business. Costs and rewards for businesses in ways they cannot possibly predict. As such, business is uncertain – however, they can be prepared! Many firms build themselves portfolios. In other words, should one product start to fail due to unforeseen circumstances, the business can sell other products in order to survive (thanks to its other products).

**Risk:** like gamblers, firms take risks with every decision they make in the hopes of a reward. A new investment, for example, can either succeed or fail. Firms use risk management to assess the potential impact of their business decisions, weighing the potential reward against the risk. The main objective here is to achieve the greatest reward with the least amount of risk. Uncertainty, therefore, is the amount of control a firm has over it.

Let's use capital investment as an example.

Businesses undertake capital investment for many reasons, such as to *replace* broken equipment or to help expand their operations. Whatever the reason, capital investment is a long-term decision and so it is important that the *right* investment is made.

If a new piece of machinery costs £25,000, but could potentially double current sales, the firm must weigh up the risk against the reward. Is doubling sales enough to pay for the new machinery? How long will the machinery last before the firm needs to replace it? Will the company need to hire more staff as well?

There is uncertainty, too: the investment could fail, or the business's products could be rejected by the consumer market. Does the business have enough other products in its portfolio to survive the uncertainty?

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## Implications of Limited and Unlimited Liability

The liability of a business (i.e. its financial responsibility) falls into two categories: *limited liability* and *unlimited liability*. An owner that has *unlimited liability* has complete responsibility for the finances of the business. An owner with *limited liability*, on the other hand, has a set financial point that they are responsible for.

### Unlimited Liability

Sole trader is the most common form of a business with unlimited liability. It only requires one person to set up and so it is quick, easy and cheap to set up. The owner controls all assets of the business and is responsible for all liabilities too.

Unlimited liability can also apply to partnerships: if, for instance, four people each invest £100,000 in a business that eventually fell into debt by £400,000, each owner would be liable for £100,000 of the debt.

Advantages of unlimited liability include:

- ✓ Simple to set up since it only requires one person: the owner.
- ✓ All responsibility for the business falls on the owner of the business.
- ✓ If the business fails, the owner is the only person affected and so it is easy to start a new business.

Disadvantages of unlimited liability include:

- × All assets belong to the owner, but then so do all liabilities (debts).
- × Raising finance can be difficult, as the owner is limited to finding a loan or using personal savings.
- × The owner can employ other people, but he/she is the only member of the business (if the owner dies or becomes ill, the business stops working).

If a business with unlimited liability gets into financial trouble, i.e. the debts outweigh the assets, the business will go *bankrupt*. Unlimited liability means it is the responsibility of the owner to pay the debts of the business – the owner's liability, therefore, is unlimited.

### Limited Liability

Many sole traders eventually change to limited companies (normally private limited companies). In a limited company, ownership is shared. Assets belong to the business, rather than a single owner, who is replaced by a group of shareholders. Leadership of the business is managed by a board of directors. Shareholders own shares in the company.

Shareholders have responsibility for a slice of the business; however, this slice is limited. A shareholder is only liable for any debts of the business above their original investment. If, for instance, a person owns 10% of the shares in a private limited company, that person will only be responsible for £10,500 of any debts (if the company loses £105,000 more money than the firm might lose in future).

Advantages of limited liability:

- ✓ Shareholders are protected as they are only responsible for what they invest.
- ✓ Limited liability makes raising finance much easier for the business, as the firm can offer shares to a large number of people.
- ✓ A limited company keeps running whether or not the shareholders change.

Disadvantages of limited liability:

- × Limited companies, by their nature, can grow large and, therefore, become more complex. They need to employ more management to keep processes organised.
- × Companies with limited liability must make their accounts publicly available.
- × Since shareholders own the company, they have sway over who is appointed as directors. This can create a conflict of interest.

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**Example:**

Mad Hatters plc started life as a retailer of hats and scarves. Once it became successful, the company was floated on the stock market with 250 shares going for £10.00 apiece. Investors bought up 50 shares each, but only managed to pay off 20 of them. Each investor therefore, owned 50 shares but still owed the money for 30.

After the stock market floatation, Mad Hatters plc's shareholders encouraged the company to sell novelty sun hats in cold climates. This did not go well and eventually led to the closure of the business. Mad Hatters plc went into *liquidation*, which means they had to sell off all their assets in order to pay the debts.

*However, the assets were not enough to pay off the debts. What was the result? What was the reason for the business to close. So who was responsible for the company's financial losses?*

The responsibility for Mad Hatters plc's failure fell with the company's shareholders, who had limited liability. This meant that each shareholder only owed back on the shares they had not yet paid for. In this case, each shareholder owed 30 shares at £10.00 each, i.e. £300.

The Mad Hatters plc example demonstrates how it is relatively easy for businesses to raise capital. Investors have limited liability, i.e. limited to the value of the shares they own. They are not expected to put money down since they know this is also the maximum they can stand to lose.

**Note the difference:** When businesses with unlimited liability are forced to close, the same thing happens to companies with limited liability, however, they go into *liquidation*.

**1.4.2 Questions**

3. Identify and explain one reason why it is generally easier to raise capital for a company with limited liability than as a company with unlimited liability.

4. Copy out and complete the following sentences using the words *limited liability*.

Companies that have \_\_\_\_\_ liability will normally be easier to raise capital than companies with \_\_\_\_\_ liability. This, of course, can make it more difficult to manage as firms that have \_\_\_\_\_ liability often have more complicated organisational structures. Shareholders have certain powers with \_\_\_\_\_ liability, such as being able to vote on important decisions or be appointed to a company's board of directors. The owner of a company with \_\_\_\_\_ liability has responsibility for all its assets and debts. A company with \_\_\_\_\_ liability may stop funding its operations if it is in financial trouble, while a company with \_\_\_\_\_ liability is not. The owner of a company with \_\_\_\_\_ liability is responsible for who ends up leading it. Companies with \_\_\_\_\_ liability have fewer options available for raising finance than companies with \_\_\_\_\_ liability.

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### 1.4.3 Credit and Its Impact within the Economy

Entrepreneurs raise finance for many reasons, including funding the setup of a business, developing production areas and expanding their current business.

#### Types of Credit

##### Overdrafts

Banks offer overdrafts to most of their customers, including businesses. Businesses use the short term as a way to cover themselves during difficult months or while waiting for payment.

Advantages of overdrafts as a method of finance include:

- ✓ They are flexible; businesses can use them when they need to and pay back as they can.
- ✓ Businesses do not need to propose anything to their bank before using them (they can simply extend their overdraft).

Disadvantages of overdrafts as a method of finance include:

- × Interest rates are very high with overdrafts
- × The amount of money covered by overdrafts is often very limited

##### Loans

Provided by banks and other financial establishments, loans differ from overdrafts. A business can use an overdraft as and when they need it (provided they haven't already reached their limit). A loan must be planned for. A business makes a case to the loan provider (i.e. bank) in order to get a loan; the business and loan provider will then negotiate a loan amount and payment terms. Businesses generally apply for loans as a way to pay for large expenses, such as new equipment.

Advantages of loans as a method of finance:

- ✓ The payback is negotiable between the business and loan provider
- ✓ Interest rates are generally lower than that of overdrafts

Disadvantages of loans as a method of finance:

- × Businesses must normally provide a security deposit for loans, such as deeds or other assets
- × Since each loan is specific to the business, the loan provider will generally only lend to businesses that have assets

##### Trade Credit

When businesses make purchases from suppliers, they often negotiate a payback period. For example, a business may agree to pay back in eight weeks, for example, the business is not going to pay for the goods until eight weeks later. This cash can be used to finance other business areas instead while they generate more revenue.

Advantages of trade credit as a method of finance include:

- ✓ Every supplier works in their own way and so the business can negotiate different terms to make certain they always have enough cash available to pay their debts
- ✓ Paying in eight weeks instead of one ensures the business has cash available for other business development

Disadvantages of trade credit as a method of finance include:

- × The business must be sure they are going to have the cash available by the payback date or they will issue a significant charge to the business as a penalty
- × In addition to the previous point, the business may suffer the consequences of late payment, which could lead to fewer suppliers wanting to negotiate with them in the future

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## Sources of Credit

While types of credit describes the method of finance (i.e. how it is provided to the entrepreneur), sources of credit concern who (person or organisation) is providing the finance.

### Other Businesses

It is common for big businesses to buy shares in smaller businesses, especially if they operate in the same market. Smaller firms are valuable, as they often control particular pockets of the market that bigger businesses find difficulty in penetrating (such as the environmentally-conscious consumer). Smaller businesses also benefit from the finance that larger corporations can provide.

Advantages of other businesses as a financial source include:

- ✓ Bigger businesses have more funding available to support development of smaller firms
- ✓ If a business buys significant shares in a smaller firm, they can grant access to contacts, which would help the firm grow further

Disadvantages of other businesses as a financial source include:

- × If investors own a large share of the business, they will have significant power and could cause conflict within the organisation
- × Many small firms make their mark by targeting consumers who are interested in (often ethical) business. The small firms must be careful, therefore, if they change influence: small firms that start behaving too much like their investors (i.e. other customer base that they originally catered for)

### Banks

All businesses have to answer to the bank manager in some way or another, whether asking for a loan, dipping into their overdraft or simply finding out the best way to save money. Most businesses can utilise the bank as a source of finance, though it can be difficult for less profitable (or still developing) firms to find support in this manner.

Advantages of banks as a financial source include:

- ✓ Since banks are institutions, rather than individuals, there is potential for a business to access a lot of money
- ✓ The bank will not be shareholder in the business and so the owner is free to use the money as they see fit

Disadvantages of banks as a financial source include:

- × Banks often require strict payback plans for borrowers
- × Interest rates can increase, generating more costs for the business

## Other Types of Finance

### Venture Capital

This method of finance starts with a pitch; a business puts forward a plan to an investor, such as a business angel, to explain what the business wish to do and how much money is needed. If the investor likes the plan, they will decide to invest by either granting the money or giving a loan.

A great example of venture capital success is Levi Roots' *Reggae Reggae Sauce*, which began as a single-kitchen operation in Brixton, London. Watch Levi's pitch on the BBC television show *Dragon's Den*: [zzed.uk/5867-dragonsden](http://zzed.uk/5867-dragonsden)

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Advantages of venture capital as a method of finance include:

- ✓ Many venture capitalists are also successful business leaders and so can act as mentors
- ✓ Some businesses look to venture capitalists when all other sources are unavailable, taking a risk in order to fund these businesses

Disadvantages of venture capital as a method of finance include:

- × By investing in the company, the venture capitalist is taking a risk and so expects a high return. This can lead to a high demand of dividend payments, which could affect the company
- × Advice is very useful to businesses, but investors can become too involved with the business's interests

## Share Capital

If two entrepreneurs start a business together, each person will own a 50 per cent share (unless they negotiate otherwise). A share, therefore, represents a stake in the business.

The status of a business can change over time. If a business becomes successful, they may become a private or public limited company. This would then allow other investors to stake a claim by purchasing shares. Businesses generally consider issuing share capital as a long-term form of finance: a firm would not consider this as a way to generate cash for a new piece of machinery.

Advantages of share capital as a method of finance include:

- ✓ Companies only pay shareholders if they have been profitable
- ✓ Investors have limited liability on their shares: this means that they do not have more than their share, even if the business makes a loss

Disadvantages of share capital as a method of finance include:

- × Since investors are buying shares in a business, they gain an element of control over the business
- × Shareholders expect dividends if a company is profitable, which means less money for development of the firm

## Leasing

Many businesses choose leasing over purchasing items, such as property or equipment, to save more cash at the end. This option is also appealing when a business has a short-term need but not have the right equipment or the money to purchase them.

Advantages of leasing as a method of finance include:

- ✓ Businesses that lease do not have large amounts of money wrapped up in equipment, which can be used over for other things, such as business development
- ✓ The owner of the property is responsible for its maintenance rather than the business

Disadvantages of leasing as a method of finance include:

- × Paying a lease for a long period is a continual cost to business, which would never be paid off. However (e.g. through taking out a mortgage), the business would be able to own the property, which would be worth more than the money they could have saved
- × If the owner of the leased item decides to sell it, the business has no control over the sale

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## Other Sources of Finance

### Personal Savings

This source of finance, also known as the *owner's capital*, is the amount of cash that the firm. Personal savings are generally used by sole traders, partnerships and fresh start-ups. They are a way of assets.

Advantages of using personal savings include:

- ✓ The cash is quick to access since it is the business owner who is making the investment, rather than an external source, such as a loan provider
- ✓ If an owner is personally invested, he/she may take greater care in the success of the business

Disadvantages of using personal savings include:

- × Any loss of profits for the business is a loss for the owner, who has invested their own money
- × Owners can be over-confident in their business if they are also the investors

### Retained Profit

This is the profit that a business keeps after all expenses, taxes and shareholder dividends. It is a source of finance that is available to most organisation types except fresh start-ups; this is because they have not made enough (or any) profit.

Advantages of retained profit include:

- ✓ If a business were to apply for a bank loan, they would need to provide reports on how the business already earned the retained profits, no one will need to ask them for this
- ✓ Investment of retained profits can lead to development of a business to the point where it was before. This would help increase the value of the business' shares, making it potentially attracting further investment

Disadvantages of retained profit include:

- × If a business make a considerable amount in retained profits, shareholders may want to receive higher dividends. This can lead to de-investment from unhappy shareholders, creating a negative image for the business.
- × There is an opportunity cost to be considered: a business might be deciding between investing in new projects or saving them in order to generate a healthy amount of interest. If the owner chooses to invest in new projects, they must be sure that they are going to make more money from developing new projects than the interest they could have made by saving the profits

### Sale of Assets

This involves a business selling off their possessions, such as property or vehicles, to raise cash. This source is available to most business types, except new startups since they generally do not have assets they can afford to sell.

Advantages of sales of assets include:

- ✓ It allows businesses to focus their resources on developing themselves, rather than having money locked up in assets
- ✓ Unlike a bank loan, for example, the finance is freely available to the business once they have sold the asset

Disadvantages of sales of assets include:

- × An asset is no longer an asset once it is sold; if a business still need access to the asset, for example, but have already sold their asset, they will need to pay rent on a new asset. Essentially, this turns a business' asset into a cost
- × The business need to be sure that the asset is worth less to them than the profit they can make with the now-available cash. This is a risk for any business.

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## Individual Investors

For most businesses, costs are generally low at the beginning (especially compared to when the business starts making profit), that is unless significant infrastructure is required, such as technology. The costs may be relatively low, but they are still high for businesses that are just starting in the development phase. As such, many new firms look to individuals, such as friends and family.

Advantages of individual investors as a financial source include:

- ✓ Business owner and investor can negotiate a payback period that suits all parties.
- ✓ Securing the finance is a relatively quick process since both the business owner and investor know each other.

Disadvantages of individual investors as a financial source include:

- × Investors have a share in the business's profits. In the beginning, a firm may have to invest up to £10,000 in order to start trading. If a friend lends the cash, their contribution to the business. In five years' time, the business could be making profit in the millions. The friend who lent up £10,000 would own half of the profits.
- × Investors have a say in the business activities. By providing financial support, the investor has a stake in the business and, therefore, be able to influence how the business is run.

## Peer-to-peer funding

This source of finance can involve any number of people, from two investors to a million. Peer-to-peer funding by making formal applications; each application will explain how much money they intend to do with it. Each proposal is published online so that all potential investors can see it. Investors are welcome to put down as much, or as little, money as they like (there is normally a minimum amount). If the proposal gets enough funding, it is accepted and the business receives 100 per cent of the money.

Peer-to-peer funding is generally a source of finance chosen by startups and development firms. Established firms may also use it as a way to generate finance for business development.

Advantages of peer-to-peer funding as a financial source include:

- ✓ There are few financial costs involved for the business, because peer-to-peer funding is a loan.
- ✓ Peer-to-peer funding acts as a forum for business proposals: if the funding is not given, the business can see the problem with the proposal.

Disadvantages of peer-to-peer funding as a financial source include:

- × Peer-to-peer funding is a time-dependent process. This means that if the business does not receive the investment to cover 100 per cent of the proposal by the time limit, all funding is revoked.
- × While it does not cost the business financially, it takes a lot of time and effort to create a funding proposal.

## Online Collaborative Funding

This source, also known as *crowdfunding*, works in a similar way to peer-to-peer funding, but being that while peer-to-peer funding is a loan, crowdfunding offers a grant. Crowdfunding is generally financed by individuals who are already interested in the business. If the business is successful, many of the financiers will be familiar with the business. If a business requires funding, it can request a specified time limit or they receive no funding. Some businesses will also offer a reward in exchange for a bid, such as a copy of the new product. For example, a business that has been financed by a crowdfunding platform can then use the money to fund her next book.

Advantages of online collaborative funding as a financial source include:

- ✓ There are few financial costs involved for the business, because crowdfunding is a grant.
- ✓ Crowdfunding acts as a forum for business proposals: if the funding is not given, the business can see the problem with the proposal.

Disadvantages of online collaborative funding as a financial source include:

- × Crowdfunding is a time-dependent process. This means that if the business does not receive the investment to cover 100 per cent of the proposal by the time limit, all funding is revoked.
- × While it does not cost the business financially, it takes a lot of time and effort to create a crowdfunding proposal.

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## Challenges in Obtaining Credit

Small- to medium-sized businesses face many challenges of which the most prominent are: Businesses need to be paid on time by their customers; if a firm does not receive cash for its services, it will have trouble meeting any day-to-day bills and, as a result, lose its credit rating. Having a good credit rating is, therefore, essential to most businesses as it allows them to obtain credit (at lower rates and for longer periods) and negotiate more lenient trade credit agreements with suppliers.

In order to better control their credit ratings, businesses often employ cash-flow forecasting. Cash-flow forecasting allows businesses to predict what cash will be coming in and what cash will be going out (see section 1.6.4.). Once a firm can predict its cash flow, it will be in a better position to manage its cash and can afford to make and which it should absolutely avoid.

### 1.4.3 Questions

5. Put the following phrases into the categories: either *method of finance* or *source of finance*. The first one has been done for you.

 Overdraft	Loan	Personal savings	Trade credit
Bank	Share capital	Retained profit	Other financial institution

Source of Finance	Method of Finance
	Overdraft

6. Mariah Cherry is the owner of a small greengrocer business. Cherry is looking to purchase another in order to grow her business. Show how to fund the purchase of the new location: personal savings, retained profits, assets.

Identify and explain which of the three methods of finances would be most suitable for Cherry's business expansion.

### 1.4 Keywords

<b>Dividend</b>	The money that shareholders receive after all the expenses have been paid.
<b>Shareholder</b>	A partial owner of a company. Shareholders invest money in a company and have a stake in its success.
<b>Grant</b>	Cash that is given to a business. Unlike with loans, companies do not have to repay grants.
<b>Share</b>	A unit of ownership of a company. If, for example, a company has 100 shares and a person owns 10 shares, they own 10 per cent of the company.
<b>Stock market</b>	A place where company shares are bought and sold. Examples include the London Stock Exchange and the New York Stock Exchange.
<b>Float</b>	When a company decides to trade its shares on the stock market.
<b>Liquidation</b>	A company's assets are no longer enough to pay the debts. The company will then sell off its assets in order to pay what it owes.
<b>Secured loan</b>	A loan issued by a bank with some sort of asset (property, for example) as collateral. This asset can be claimed by the issuer of the loan if the debtor fails to repay. Secured loans will have lower borrowing costs (interest rate) than unsecured loans.
<b>Collateral</b>	An asset that is promised to be handed over to a lender if the debtor fails to repay a loan.

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## 1.5 Market Failure and Government Intervention

### 1.5.1 Market Failure and Externalities

Competitive markets can drive innovation, incentivise efficiency and bring about new products because, in order for a firm to remain within a market, it must keep customers. Companies set the price of a good and relative prices of other goods. This means that firms need to be cheaper than other firms in order to keep consumers buying their products. Consequently, in the face of competition from other firms, they will need to look for new ways to lower their costs and prices. Another way firms can entice consumers to buy their goods is to look at new products or a new good. This means firms will be looking for innovative new and improved products.

However, the price mechanism, introduced in section 1.2, is not perfect and therefore the market may not allocate resources efficiently. A market failure occurs when the market is unable to find the optimal market outcome. This occurs when there is a misallocation of resources leading to goods that are underproduced or overproduced in the market and in some cases, not provided at all.

The only example of market failure you will need to learn for your exam is the underconsumption of goods with external benefits and overconsumption of goods with external costs.

#### Extra Activity!

Although not needed for the website below, it lists various market failures: <https://www.zigzageducation.com/2019/04/24/market-failures/>

Costs occur during the production of a good and during the consumption of a good (when it is purchased). Benefits also occur during both the production (the revenue producers receive) and during the consumption of a good.

Producers weigh up the costs they incur against the benefits they'll receive before deciding to produce a good and will do so if  $\text{benefits} \geq \text{costs}$ . Equally, consumers weigh up the costs they incur before deciding to purchase a good and will do so if  $\text{benefits} \geq \text{costs}$ . If there are costs or benefits experienced by the producer or consumer then these will not be accounted for and are called 'externalities'.

- × Private Costs are costs that impact the economic agents directly involved in the production of the good
- × External Costs are costs that impact a third party who is not involved in the production of the good (negative externality)
- × Social Costs are the total costs involved in the market transaction including both private and external costs
- ✓ Private Benefits are benefits that impact the economic agents directly involved in the production of the good
- ✓ External Benefits are benefits that impact a third party who is not involved in the production of the good (positive externality)
- ✓ Social Benefits are the total benefits involved in the market transaction including both private and external benefits

The externality diagrams are derived from the supply and demand diagram to show how a market failure can be 'internalised'. Internalising an externality means it attempts to include the external effects with the internal workings of the market.

Any good or service that has a positive or negative effect on a third party who is not involved in the production or consumption of the good is called an externality.

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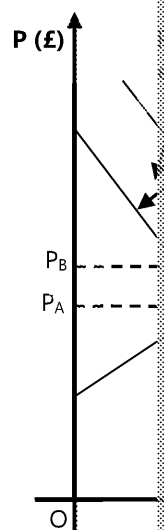


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## Positive Externality

A positive externality results from the consumption or production of a good or service and impacts a third party in a positive way. Consumers are assumed to purchase goods that maximise their utility which doesn't include accounting for any external benefits, and this is shown by the marginal private benefit (MPB) curve. It is downwards-sloping, just like the demand curve; each marginal good brings a diminished marginal benefit to the consumer. But, there is an additional benefit to society from the consumption or production of this good, including that this benefit in the market mechanism would push the demand curve outwards. This is because increased benefits would mean consumers would be willing to pay more for the good. Adding the external benefit to the private benefit at each quantity level creates the marginal social benefit (MSB) curve. The external benefit from consuming the good can be seen by the distance between the MPB and MSB.



'A' shows the equilibrium point the free market would find, here the price is at  $P_A$  and quantity is at  $Q_A$ . This is a market failure because at this point there is a misallocation of resources in the economy; the good is undersupplied. The shaded triangle is the 'welfare gain area' and it shows the welfare gain from moving to the optimal equilibrium point.

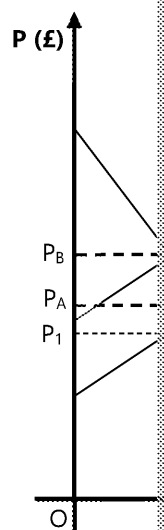
'B' shows the socially optimal equilibrium point. Price is higher at  $P_B$ , because the good has more 'worth', and quantity has increased to  $Q_B$  which is more beneficial to the economy due to the greater 'spillover' of the external benefit.

For a positive externality diagram a subsidy can be implemented to increase quantity without increasing the price. The amount of subsidy can be seen as the distance between the MSB and MPB curves.

**For example:** Vaccinations have an external benefit. Let's say  $Q_A$  is a quarter of your class. These people will become immune to the diseases, but, there is a reduced chance you and your class are the third party that benefit from the consumption of this good despite the market transaction. However, if more people were to buy the vaccine there would be a greater 'spillover' effect. Let's say  $Q_B$  is three quarters of your class, at this point (B) is the socially optimal equilibrium. The resources (the sum total of all the resources you and your class peers have) and the 'spillover' effect. The government may subsidise vaccinations for certain groups of people, such as the measles, mumps and rubella vaccine.

## Negative Externality

A negative externality results from the production or consumption of a good or service and impacts a third party in a negative way. Producers are assumed to produce goods that maximise their profits (see 1.1.1.1), this doesn't include accounting for any external costs and this is shown by the marginal private cost (MPC) curve. It is upwards-sloping, just like the supply curve. But, there is an additional cost to society from the production or consumption of this good, including that this cost in the market mechanism would push the supply curve inwards. This is because increased costs would mean producers would be willing to supply less of the good. Adding the external costs to the private costs at each quantity level creates the marginal social cost (MSC) curve. The external cost from producing the good can be seen by the distance between the MSC and MPC.



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'A' shows the equilibrium point the free market would find, here the price is at  $P_A$  and the quantity is at  $Q_A$ . This is a market failure because at this point there is a misallocation of resources in the economy. The good is overproduced and overconsumed. The shaded triangle is the 'welfare loss area' and it shows the welfare loss from the free market equilibrium.

'B' shows the socially optimal equilibrium point. Price is higher at  $P_B$ , because the price includes the external cost, and quantity has decreased to  $Q_B$  which is more beneficial to the economy because it takes into account the external cost.

Negative externality diagrams are similar to tax diagrams. A tax can be imposed to move the market to the optimum level by increasing the price. The amount of tax can be seen as the distance between the private and social cost curves.

**For example:** the delivery of goods to supermarkets etc. by lorries has an external cost. Lorries delivering goods to the shops create traffic congestion and pollute the air and contribute to global warming. This would be damaging to society by increasing traffic congestion and reducing the air quality with potential health implications. The socially optimal level for society is at point B where quantity was reduced to  $Q_B$  and there were fewer lorries on the roads.



### 1.5.1 Questions

1. What is:
  - a) Private cost?
  - b) Social cost?
  - c) External cost?
2. What is:
  - a) Private benefit?
  - b) Social benefit?
  - c) External benefit?
3. How might a market fail if a good has an external benefit?
4. How might a market fail if a good has an external cost?



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## 1.5.2 Government Intervention and Failure

### Why Intervene and Government Failure Causes

In the last section we discussed market failure; this section discusses how governments intervene in order to *correct* this failure.

Where the market may fail the government can step in (intervene) in order to correct the failure and reallocate resources to the more socially optimal market equilibrium. The government may also intervene to protect the well-being of the environment, society and the economy.

However, the government may instead create further market failures that result in a net loss. This means that the final outcome results in more welfare loss than the free market outcome. This can present itself in a variety of ways:

- Price signal distortion
- Unintended consequences
- Excessive admin costs
  - There are costs involved with implementing policies and with monitoring their effectiveness. This is one way to explaining where lost resources have been allocated.
- Information gaps
  - Government can cause information gaps, but equally the information can mean governments are misinformed. They may cause failures by acting on suggestions built from inaccurate models and predictions.

Here are some examples of how the government may intervene to correct externalities. Some of these methods may result in various government failure types.

#### Examples of Government Intervention into Markets:

- Minimum wage
- Minimum age to purchase alcohol and tobacco
- Free education
- Free healthcare
- CO<sub>2</sub> emissions standards for all new vehicles
- Guaranteeing a minimum price to farmers for their produce

### Overconsumption of Goods with Negative Externalities

The unaccounted for social cost means the market will produce at a socially suboptimal level. The government may intervene in order to manipulate the market in a way to 'internalise the externality' thereby forcing the market to produce at the social optimum equilibrium.

Adding a tax to a good with a negative external cost will push up the cost of production, making producers less willing to supply the good and, therefore, the extent of the externality decreases as the quantity supplied falls. This will in turn push the price of the good up and fewer consumers will purchase the good at this price and, again, the extent of the externality will decrease along with the quantity demanded. The aim of the tax is to reduce consumption and production of the good.

However, as discussed previously, the incidence of the tax may mean the consumer pays more for the good. In the case of the tobacco and cigarette market this may be a good thing and encourage consumers to quit. In the case of the energy market, however, there could be some issues. The generation of electricity uses fossil fuels which release harmful pollution into the atmosphere. The extraction and consumption of petrol and gas. A tax may be implemented to restrict consumption of these modern-day necessities and with the burden falling on to consumers, this may leave them with higher costs of living, which presents a social and economic struggle.

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## Tradable Pollution Permits

Pollution is a negative externality and is a critical modern-day problem. A 'polluter' however, there is no guarantee firms will reduce the pollution they produce. Firms are relatively inelastically to increasing pollution costs because energy is essential to production. A tax on pollution by the government will increase but it is unlikely to affect pollution levels. Furthermore, as the cost of the tax more and will carry on polluting and producing and just pay more. Firms will find it harder to cover their increasing costs.

Taxes attempt to manipulate the market and thereby distort the price mechanism. A pollution permit is used to try to limit the pollution using a more market-based approach. Pollution permits allow firms to produce a set amount of carbon. If they produce under their limit, they can sell their excess permits. This provides an incentive to firms to pollute less because they receive money, thereby reducing the total amount of pollution emitted. Additionally, as firms become more competitive and the demand for the good will increase, thereby causing an increase in price of consumers towards lower-polluting goods. If firms produce over their set amount of permits from lower-polluting companies. This provides an incentive not to pollute because the cost and the required increase in price will shift consumers away from high-polluting goods. In the market for pollution, intervention attempts to work with the market rather than against it.

The tradable permits allow pollution to be distributed to various firms depending on their production. This can reduce the total pollution emitted. However, high-polluting firms are usually richer. Poorer firms will find they are unable to produce their goods while rich firms carry on polluting.

## Underconsumption of Goods with Positive Externalities

Adding a subsidy to goods and services with positive external benefits can help to reach the socially optimum level because some of the costs of production are funded; production of more goods. This in turn means the price will fall and consumers will be more willing to purchase. The effect of the external benefit increases with the increase in supply and demand.

However, the subsidy removes the need of the firm to become more efficient and essentially means they are already reduced. This means a subsidy discourages the firm to improve within the market.

## Methods of Government Intervention

### Regulation

Governments might intervene to regulate markets. This is common if the regulators are becoming too big and powerful and are able to use this market power to overrule the market.

### Legislation

Governments might introduce legislation to limit the consumption of goods that produce negative externalities. For example, the minimum age to purchase tobacco and alcohol and the prohibition of smoking in public places.

### Indirect taxation

As well as introducing legislation, governments might impose indirect taxes on the production of goods and services that produce negative externalities. Indirect taxes are paid by the seller – but the consumer as the tax is passed on through higher prices. Indirect taxes can be avoided by using substitutes. Both tobacco and alcohol products are subject to these types of taxation.

### Grants and subsidies

The government might offer grants or subsidies to boost the production of goods that produce positive externalities. For example, education and healthcare are provided free of charge. A subsidy to farmers is to guarantee a certain level of food supply and ensure that farmers receive a fair price for their produce. Externalities to agriculture – people value the countryside for its views but this is not reflected in the price of the food.

### Voluntary agreements

The government may also encourage businesses and other parties to adhere to certain standards. For example, it may pressure firms in certain industries to adhere to limit emissions at a certain level.

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## Causes of government failure

### Distortion of Price Signals

Government intervention into markets can cause the price mechanism to function. If the government subsidises the agricultural production of a certain good, for example, then farmers produce more than is demanded on the free market.

### Unintended Consequences

There are often unintended – and unforeseen – consequences to government intervention. If the government were to introduce a maximum rent for properties to deal with the high cost of housing, for example, it might work well in the short term, but over the longer term it would mean that the demand for housing would exceed the supply. It might also cause immigration to increase if living costs were lower than the problem.

### Excessive Administration Costs

Intervention into markets by government can be costly to run due to administrative costs. If the costs of running a program are greater than the benefit of the intervention program then it can be classed as government failure.

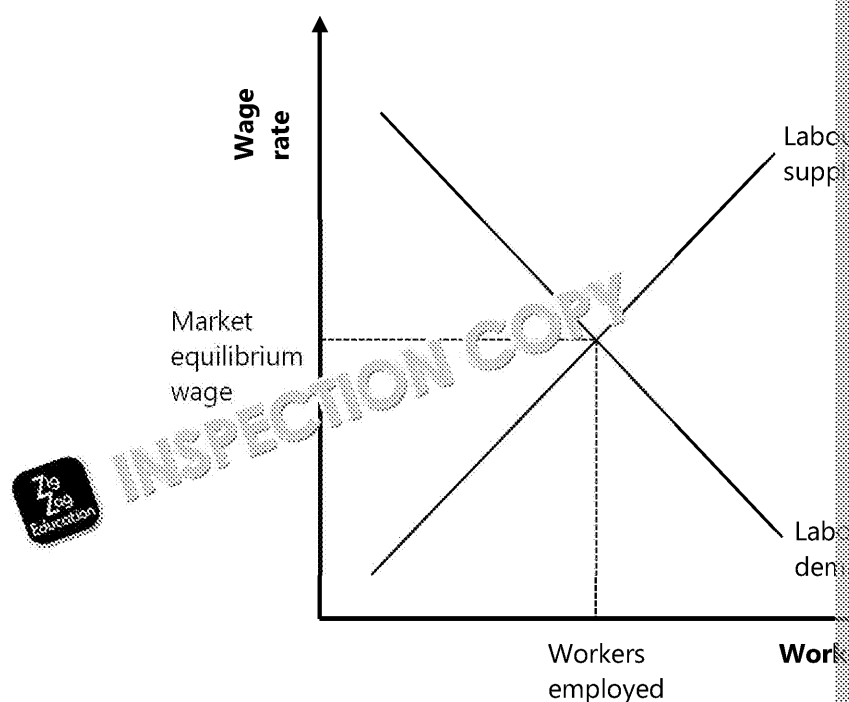
### Information Problems

It may be incomplete, or very hard, for governments to truly estimate the cost of a problem or the benefits of a solution. There are positive externalities to people attending university, for example. They gain useful skills and higher productivity. There is, therefore, an argument that the government should subsidise university education. But by how much? The benefits of university education are difficult to quantify exactly and, therefore, the government may well over- or under-subsidise.

## Case Study: the labour market

We can use supply and demand analysis introduced in section 1.3 when looking at the labour market. The difference is that instead of price on the y-axis we have the **wage rate**, and the quantity on the x-axis is the number of **workers**.

The idea of supply and demand is exactly the same in labour markets. In this case, the demand is by firms looking to fill positions and use labour as a factor of production. The intersection of supply and demand determines the **market wage rate**. This is shown in the diagram below.



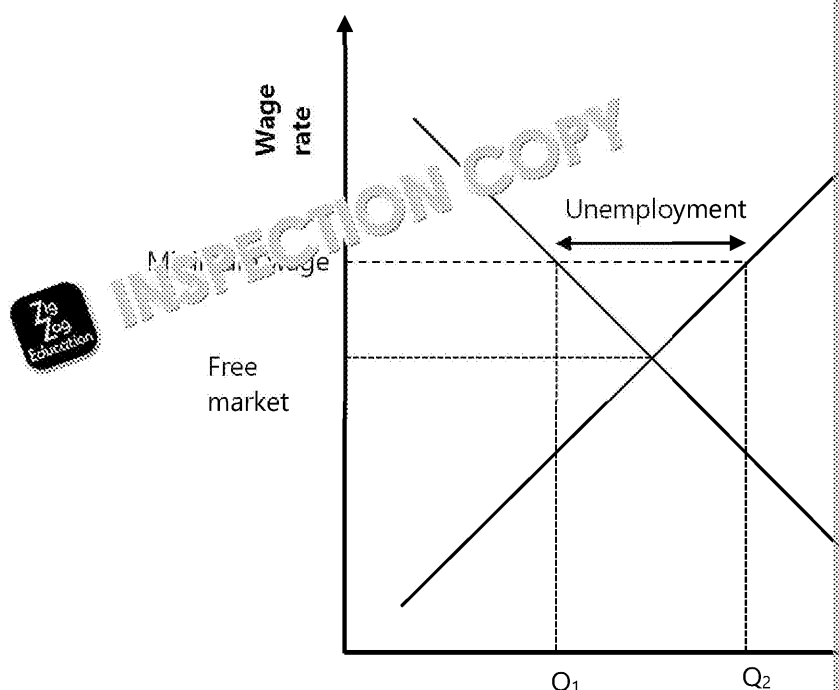
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The labour market presents a good example of when there might be a difference between the price in practice and the market price.

## Government Intervention

In the UK we have a minimum wage system which is an example of **government intervention**. Employers can't pay less than £6.50 per hour to those aged over 21. What happens to the wage rate as determined by supply and demand? Consider the diagram below. The minimum wage is the 'floor' below which wages can't legally fall. The result is a discrepancy: the amount of labour supplied at this higher rate is *above* the amount of labour that employers are willing to employ. The difference between the amount of labour supplied and demanded ( $Q_2 - Q_1$ ) is *unemployment*.



## Costs and Benefits of the Minimum Wage

On the face of it, the minimum wage seems bad – it causes unemployment. Of course, it's more complicated and involves subjective judgments. The main idea is to alleviate living standards – but this only helps the *employed*.

There is evidence that higher wages lead to higher productivity – people tend to work harder. Also, if all firms have to pay the same minimum wage, for example, then the playing field is even. Everyone knows that firms can't undercut them on wages and sell products more cheaply. The cost of higher wages is passed on to consumers.

The minimum wage was introduced in 1999 in the UK and since then there hasn't been a significant increase in unemployment. Remember the idea of *ceteris paribus*. In 2008 the economy was booming which may have led to a significant reduction in unemployment.

### 1.5.2 Questions

5. Give an example of a situation in which goods with positive externalities are **underconsumed** if only provided by the free market.
6. Explain how the introduction of a minimum wage can cause unemployment to increase.

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## 1.5 Keywords

<b>Externality</b>	A cost or a benefit that is not captured by the market – they involved in the transaction.
<b>Market Failure</b>	When a good or service is underconsumed because the market fails. For example, there is no market for street lighting because it would not monetise the service.
<b>Subsidy</b>	Money paid by the government to boost the production of a good or service to correct the underprovision of a good by the market.
<b>Government Failure</b>	This occurs when resources are allocated inefficiently following government intervention.
<b>Market Failure</b>	This occurs when the market does not allocate resources efficiently. If social costs exceed social benefits, then there is a net cost to society.
<b>Externality</b>	A cost or a benefit that is not captured by the market – they involved in the transaction.
<b>Information Gap</b>	A difference between the public perception of the costs or benefits of a good or service and the actual reality. If there is a large difference then there may be a case for government intervention.
<b>External Benefit</b>	The gains to economic agents outside the transaction following the production of a good or service by others.
<b>External Cost</b>	The cost to economic agents outside the transaction following the production of a good or service by others.
<b>Private Benefit</b>	The gains to a household or firm following the consumption of a good or service.
<b>Private Cost</b>	The cost to a household or firm following the production of a good or service.
<b>Social Optimum Position</b>	The ideal balance between supply and demand for society, which is different from the actual market equilibrium.
<b>Social Benefit</b>	The gains to society (those that are affected whether involved in the transaction or not) that arise following the production of a good or service.
<b>Social Cost</b>	The cost to a household or firm following the consumption of a good or service.
<b>Non-excludability</b>	A good has this characteristic if it can be consumed without payment. If customers cannot be barred from consumption.
<b>Private Good</b>	A good (or service) that once consumed by someone cannot be consumed by another person. Hence they are excludable and rivalrous.
<b>Public Good</b>	A good (or service) that can be consumed by anybody without payment. Hence they are non-excludable and non-rivalrous.



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## 1.6 Revenue, Costs, Profits and Cash

### 1.6.1 Revenue and Costs

#### Calculation of Sales Volume and Sales Revenue

The calculations for sales volume and revenue show a business how many sales they have made and how much cash flow this represents.

#### Sales Volume

This is the number of sales that a company has made. In order to calculate sales volume you need:

- *price per unit*, i.e. how the price of one single product/service
- *total sales revenue*

The calculation is then:

$$\text{Sales Volume} = \frac{\text{Total Sales Revenue}}{\text{Selling Price Per Unit}}$$

#### Example:

Alarms 4 U Ltd sell £50,000 of car alarms in one year. The selling price of each car alarm is £17.50.

The calculation for this is:

$$\text{Sales Volume of Alarms 4 U Ltd} = \frac{\text{Total Sales Revenue}}{\text{Selling Price Per Unit}}$$

$$\text{Sales Volume of Alarms 4 U Ltd} = \frac{49,000}{17.50}$$

$$\text{Sales Volume of Alarms 4 U Ltd} = 2800 \text{ units sold}$$

#### Sales Revenue

This is the amount of money a company makes from the sales of a product/service. To calculate sales revenue you need *the number of units sold* (i.e. how many products/services did they sell?) and *the selling price per unit* of the product/service that were sold.

The calculation for this figure is:

$$\text{Sales Revenue} = \text{Price per unit} \times \text{Number of units sold}$$

#### Example:

Fresh Look Ltd want to calculate the amount of money they made on sunglasses in one year. They sold 30,000 pairs of sunglasses at a price of £8.00 each.

$$\text{Sales Revenue} = \text{Price per pair of sunglasses} \times \text{Number of units sold}$$

$$\text{Sales Revenue} = 8.00 \times 30000$$

$$\text{Sales Revenue} = \text{£240,000}$$

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## Calculation of Fixed Costs and Variable Costs

Once a business has calculated their sales revenue, they are one step closer to being able to work out their gross and net profits. First, however, they need to calculate their *fixed costs* and *variable costs*.

### Fixed Costs

These are the costs of a business that never change, regardless of how many goods are produced, advertised or sold. The business could produce 100 units or 1,000 units and its fixed costs would not change.

Fixed costs include council tax, insurance, annual interest (on loans), property rent, advertising, electricity.

#### Focus: Annual Interest

If a company has taken out a loan of £25,000 at an interest rate of 5 per cent, then the business pays in one year, which would be:



$$\text{Annual interest paid} = \text{Total loan amount} \times \text{Interest rate}$$

$$\text{Annual interest paid} = 25000 \times 0.05$$

$$\text{Annual interest paid} = \text{£1,250}$$

### Variable Costs

These are the costs that change with every good/service sold by a business. The more goods/services sold, the higher the variable costs.

Variable costs include raw materials, production supplies, by-the-hour contract workers.

#### What are Total Costs?

$$\text{Total Costs} = \text{Fixed Costs} + \text{Total Variable Costs}$$

Total Costs is the sum of Variable Costs and Fixed Costs together.

Fixed Costs always stay the same while Variable Costs are dependent on how many goods/services are sold. For example, if the Variable Cost of a product is £2.50, and you make one product, that is £2.50. However, if you make 10 products, your Variable Costs will be £25.00.

### Difference between Fixed and Variable Costs

A firm's fixed costs are an expense whether they are in the short run or not and so they are not affected by the level of output. Variable costs are those that change with the level of output.

Chatty People Ltd are a manufacturer of mobile phones. The company rent two factories. The following are the fixed and variable costs are the following:



Costs for Chatty People Ltd	
Rent of two factories	Electricity for factories
Costs of transporting phones	Raw materials
Salary for 50 regular staff	Supplies for production
Rental of equipment	Annual interest on loan

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The costs of the business split into Fixed Costs and Variable Costs:

Costs for Chatty People Ltd	
Fixed Costs	Variable Costs
Rent of two factories	Raw materials
Electricity for factories	Costs of transporting products
Salary for 50 regular staff	Supplies for production
Annual interest on loan	
Rental of equipment	

Each time Chatty People Ltd produce a new mobile phone, their variable costs will include the cost of raw materials to produce the phone, plus production supplies and some way of transporting the phone to the wholesalers. The fixed costs, however, will stay the same no matter how many phones they produce. Even if they make no sales, the firm will still have to pay its fixed costs.

#### Tip: Fixed or Variable?

When looking at the costs of a business, think about which would likely change depending on the number of goods/services the company produces. Any cost that increases with higher output is a *variable cost*. Any cost that stays the same no matter how many goods/services are produced is a *fixed cost*.

#### Average Costs

Businesses calculate average costs when they wish to find out the individual cost of each item produced.

##### Let's use an example:

A self-help publisher produces 10,000 books every month, which costs the company £12,000. To calculate the average cost of one book, the company uses the following equation:

$$\text{Average Cost per item} = \frac{\text{Total Costs}}{\text{Total Items Produced}}$$

$$\text{Average Cost per item} = \frac{£12,000}{10,000}$$

$$\text{Average Cost per item} = £1.20$$

Using these figures, the self-help firm would need to charge a selling price of at least £1.20 to make a profit from each book. A profit of £0.01 per book is minimal, however, and not realistic. It is more likely to price the book at £2.40 or more. Then again, if the firm only sells a few books, it may need to charge more like £10.00 per book just to make a reasonable profit.

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## Percentage Change

Converting data into percentages can help managers better understand what is going on, especially when trying to make sense of one set of costs to the next.

Let's use the previous company as an example.

The firm's current average cost per item is £1.20. However, five years ago, that average was £0.91. The difference between these two figures is £0.29, but what would that be as a percentage?

$$\text{Percentage Change} = \frac{\text{Difference}}{\text{Original figure}} \times 100$$

$$\text{Percentage change for total cost per item} = \frac{0.29}{0.91} \times 100$$

$$\text{Percentage Change for total cost per item} = 0.32 \text{ (to 2 d.p.)}$$

$$\text{Percentage Change for total cost per item} = 31.87 \text{ per cent}$$

This shows that the company has experienced a near-32 per cent change in the total cost over the last five years. Armed with this information, the company would likely decide to increase prices accordingly, i.e. by around 32 per cent.

### 1.6.1 Questions

1. Many Faces Ltd manufactures novelty masks. They are popular during fancy dress parties. The selling price of one mask is £12.50.
  - a) In 2014–15, Many Faces Ltd sold £6,950 worth of masks. Calculate the number of masks sold by Many Faces Ltd during 2014–15.
  - b) In 2013–14, Many Faces Ltd sold 13,000 masks. Calculate the selling price of one mask in that year.
2. Rearrange the following into fixed costs and variable costs.

Costs for Many Faces Ltd	
Mortgage on factory	Electricity and other
Salary for 15 regular staff	Raw materials for
Annual interest on loan	Extra staff during busy
Production line costs	Rental of regular equipment
Fixed Costs	Variable Costs

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## 1.6.2 The Relationship between Revenue and Cost

Break-even analysis is commonly used by firms to calculate the number of goods profitable. When the *total costs* of a business's actions meet the *total revenue* made from products/services, a business has *broken even*. Anything after the break-even point

### Contribution

The first thing you need when calculating break-even is the contribution. This is the difference between what variable costs a company has for making a single product and how much revenue they earn from selling it.

The calculation for this is:

$$\text{Contribution} = \text{Selling Price of one good} - \text{Variable Costs of one good}$$

#### Example:

Light On Ltd sell 'Shine-On' lamps to wholesalers around the UK. The company only sells one type of lamp, which sells for £16.00 per unit. The variable costs of making one Shine-On lamp include £3.50 for the materials and £2.00 for the labour to produce it.

The calculation for contribution is:

$$\text{Contribution for Shine On lamp} = \text{Selling Price of one lamp} - \text{Variable Costs of one lamp}$$

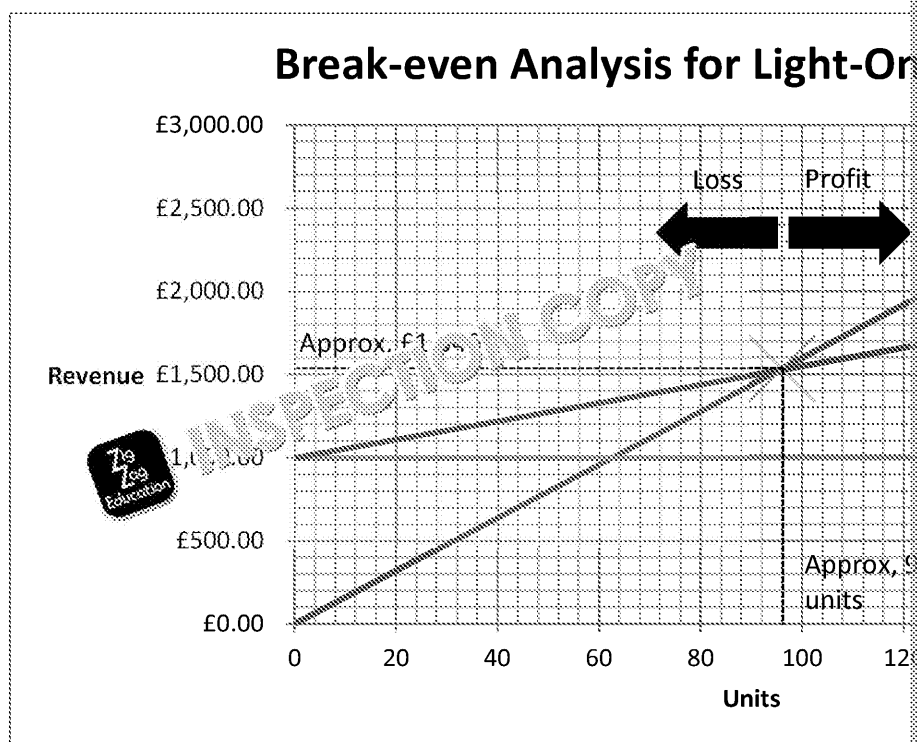
$$\text{Contribution for Shine On lamp} = 16.00 - (2.00 + 3.50)$$

$$\text{Contribution for Shine On lamp} = £10.50$$

### Break-even

The break-even point shows where a company is neither making a profit nor a loss and total revenue cross, i.e. where both figures are exactly the same.

The following diagram is an example break-even graph for Light-On Ltd.



Graph: Break-even

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Anything before the break-even point (i.e. to the left of the cross) shows loss while (i.e. to the right of the cross) shows profit. The previous graph tells us that Light-On Ltd must sell lamps before they can start making a profit. Anything less than 96 units will be a loss. If they sell more than 96 units, they will make neither a profit nor loss.

### Calculating Break-even

Take another look at the graph for Light-On Ltd's break-even point. Do you notice anything about the break-even point?

Looking at a graph is not always the most accurate way to define break-even. If possible, they can calculate break-even using the following formula:

$$\text{Break even point} = \frac{\text{Total Fixed Costs}}{\text{Contribution Per Unit}}$$

Remember that Light-On Ltd sell their lamps for £16.00 each. We calculated in a previous lesson that the contribution per unit was £10.50. The graph shows Light-On Ltd's Fixed Costs as £1000.

Now that we have this information, we can calculate break-even:

$$\text{Break-even point for Light On Ltd} = \frac{\text{Total Fixed Costs}}{\text{Contribution Per Unit}}$$

$$\text{Break-even point for Light On Ltd} = \frac{1000}{10.50}$$

$$\text{Break-even point for Light On Ltd} = 95.24 \text{ units (to 2 decimal places)}$$

### Break-even Always Rounds Up

There is a problem with this figure: a company cannot produce 95.24 units. They can only produce whole units. Since 95 units is less than break-even (i.e. making a loss), we always *round up* to the next whole number. So 95.24 would become 96 units, 15.3 would become 16 units, 180.45 would become 181 units.

Using the break-even figure for the number of units, you can also calculate how much revenue is needed to break even using the equation for Total Revenue.

$$\text{Revenue at break even} = \text{Sales Volume [at break even point]} \times \text{Selling Price}$$

$$\text{Revenue at break even} = 96 \times 16.00$$

$$\text{Revenue at break even} = £1,536$$

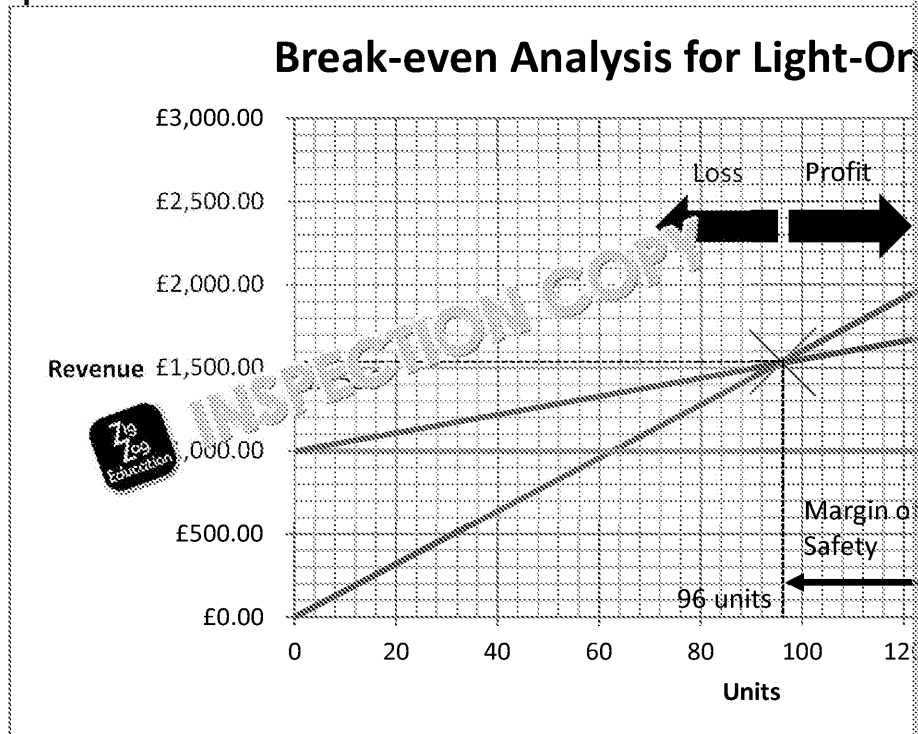
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## Margin of Safety

This shows the difference between the break-even point that a company needs to and the actual output the company is making.

**Example:**



Graph: Break-even Analysis with Margin of Safety

If the break-even point for Light-On Ltd is 96 units, but the company have actually calculate the margin of safety using the following equation:

$$\text{Margin of Safety} = \text{Actual Sales Volume} - \text{Break-even point}$$

$$\text{Margin of Safety} = 128 - 96$$

$$\text{Margin of Safety} = 32$$

Below shows a table of different margins of safety for Light-On Ltd.

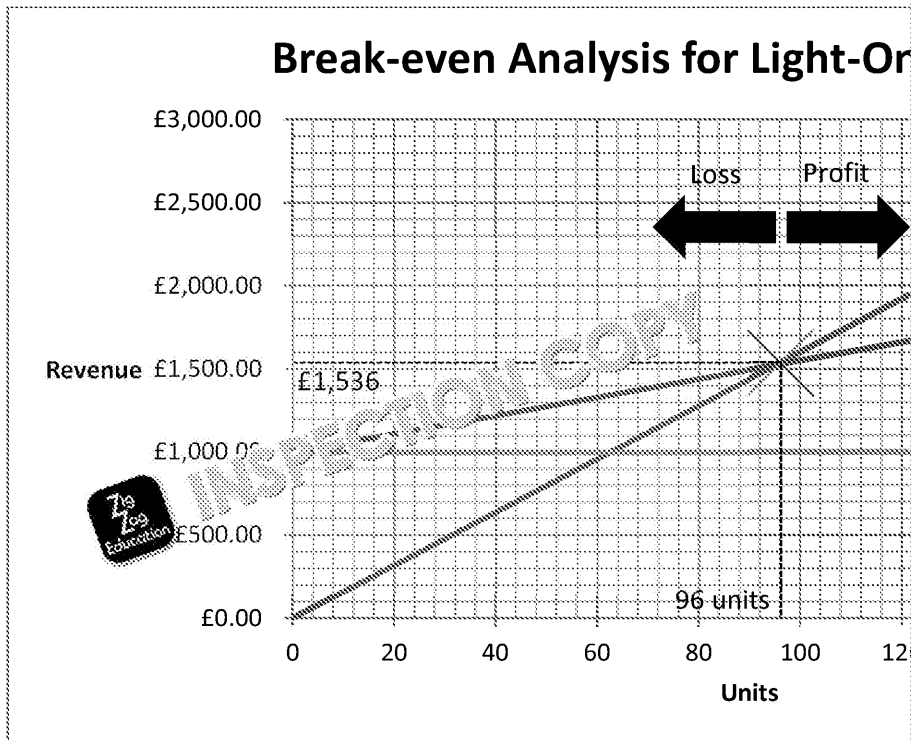
Break-even point	Actual number of sales	Margin
96	160	
96	128	
96	101	
96	96	

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## Interpreting Break-even Charts

Take another look at the break-even chart for Light-On Ltd.



You now understand how to calculate Total Costs, Total Revenue, Contribution, Margin and Break-even point. Finally, you can calculate Total Variable Costs using the following equation:

$$\text{Total Variable Costs} = \text{Variable Cost per unit} \times \text{Sales}$$

However, if you do not know the original Variable Cost per unit, you can use the following equation:

$$\text{Total Variable Costs} = \text{Total Costs} - \text{Fixed Costs}$$

In the case of Light-On Ltd, Fixed Costs stay at £1,000 no matter how many units they produce. Therefore, the Total Variable Costs are the same as the Total Costs, and so, if you subtract the Fixed Costs from the Total Variable Costs!

You can use the break-even graph to find all of these figures.

### Example:

There is another line drawn on the graph at 140 units. Find the Total Variable Costs and you have the following:

- Units: 140
- Total Costs: £1,770.00
- Total Revenue: £1,400.00
- Total Variable Costs: £770.00 (i.e. Total Costs – Fixed Costs)



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## Limitations of Break-even Analysis

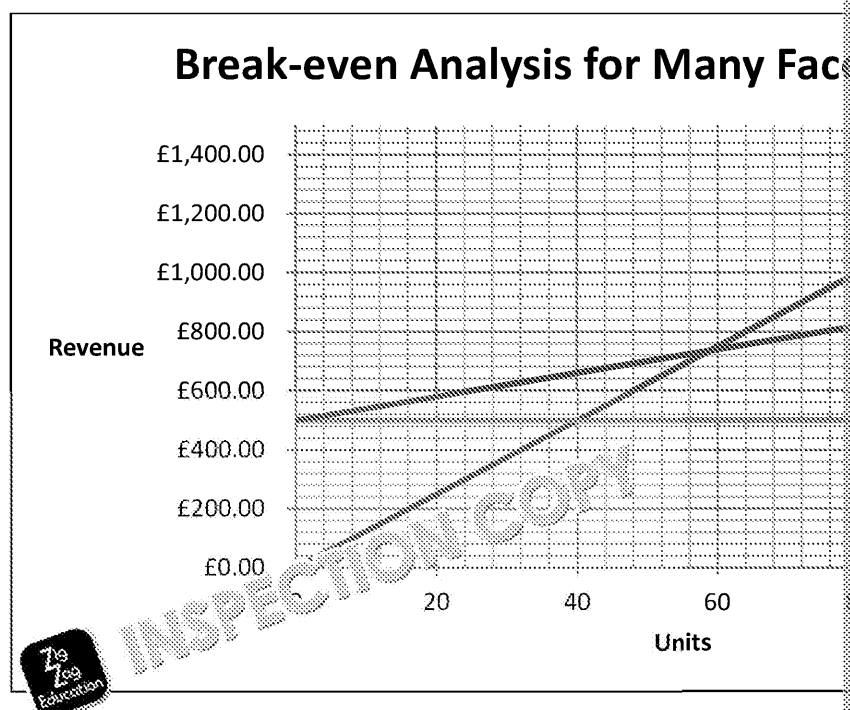
Analysing break-even point is an integral part in running a business. It makes the easy to view and understand, which helps a business make decisions and understand consequences of those decisions (such as introducing a product to the market). There are, however, limitations to the usefulness of break-even:

- The method only takes into account elements that the firm can control, such as price per unit and the number of goods produced. It does not consider any external factors
- It is difficult to look at more than one product at a time. Most companies have multiple products which would, therefore, not appear on a break-even graph
- All costs include only those that a business can plan for. They do not involve unpredictable costs
- Businesses often buy in bulk. If a firm negotiates a deal with their supplier that would then change the graph and would not move it by the same amount with the same price
- Break-even graphs only really work if a company's products/service all sell at the same price
- Just because a business produces goods/services, it does not mean they are profitable
- Break-even graphs show that revenue increases as price increases. However, once prices get too high, demand falls.



### 1.6.2 Questions

3. The variable costs of one mask add up to £4.00. Total fixed costs are £500.00.
- Calculate the contribution per mask.
  - Calculate the break-even point.
  - The variable costs have now changed. Study the graph below
    - Label each line on the graph.
    - Identify the break-even point.



4. Identify and explain two limitations of the break-even graph.

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## 1.6.3 Profit and Loss

### Market Entry and Exit

We have seen in previous sections that one of the main reasons for businesses to enter a market is the potential to make profit. This is the opposite for any market that seems unprofitable. Businesses look for ways in which they can escape. If the business is a sole trader, it can be relatively easy to exit. If the business is represented by a sole owner and operator and so shutdown costs are low. If the business is a limited company, however, market exit can be extremely tricky – there may be legal requirements, environmental impact, plus potentially thousands of workers that will need to be considered.

Once a market becomes profitable, other businesses may wish to get a slice, i.e. enter the market. However, businesses in one market, however, the smaller each slice and so many larger firms benefit from the high *barriers to entry*. These are the requirements for a business to enter a market. Telecommunications, for instance, has very high barriers to entry since companies need to start providing their services. If a firm does not have this infrastructure, it can also be difficult to start. Although this is going to cost a lot of money, it will limit the amount of savings a firm can offer its rivals.

### Calculating Profits

When analysing the success of a business, we often talk about three types of profit: *gross profit*, *operating profit* and *net profit for the year*, (i.e. *net profit*).

#### Gross Profit

Businesses find gross profit by subtracting the *cost of sales (COS)* of producing goods from the *revenue* they make for the company. Gross profit allows a company to calculate the value added by the raw materials needed to produce a good/service.

$$\text{Gross Profit} = \text{Revenue} - \text{COS}$$

#### Let's use an example:

Sparkling Crystal Ltd are a company that produce glasses for fine-dining restaurants. They source the raw materials for manufacturing the glasses, supplies needed for the production line and labour costs for working on each glass.

All together, the raw materials, supplies and labour amounted to £6,000 for the year. The revenue for Sparkling Crystal Ltd was £14,000.

$$\text{Gross Profit} = \text{Revenue} - \text{COS}$$

$$\text{Gross Profit} = 14000 - 6000$$

$$\text{Gross Profit} = \text{£8,000}$$

This gross profit for 2014–15 shows that Sparkling Crystal Ltd were able to add value to the raw materials.

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### Cost of Sales for All

If a company is a retailer (such as a corner shop), instead of a manufacturer or service provider, the cost of sales is calculated by using the amount of stock they started with (e.g. at the beginning of the year) and subtracting the amount they have at the end (e.g. at the end of the year).

$$\begin{aligned} & \text{Opening stock} \\ & + \text{Stock bought} \\ & - \text{Closing stock} \\ & = \text{Cost of Sales} \end{aligned}$$

Cost of sales only includes the stock which was actually used during the financial period. It is the stock that is hopefully be sold next financial period.

### Operating Profit

More than a statement of how much value a business adds to their raw materials, the operating profit is the amount left over after other operating costs (also known as fixed costs) have also been deducted. These costs are the costs to the business of running key activities, such as day-to-day administration.



$$\text{Operating Profit} = \text{Gross Profit} - \text{Other Operating Expenses}$$

Many business analysts prefer to look at operating profit rather than gross profit to get a better idea of how much profit the business has really made. A firm might make £20,000 gross profit but if its operating costs are £21,000, then that figure is not really worth much.

### Net Profit

This third profit is also known as the 'bottom line' because it is generally found on the last line of a company's *statement of comprehensive income*. Net profit is calculated using a company's operating profit and interest paid.

$$\text{Net Profit} = \text{Operating Profit} - \text{Interest Paid}$$

This is the final number before any tax or dividends are paid. Investors prefer to look at net profit rather than any other figure because it gives the best indication of how much profit a company has made. If a company's operating and gross profits are both positive, a negative net profit would make a company unattractive to investors.

### Statement of Comprehensive Income

This statement, also known as the 'Profit and Loss Account', gives a breakdown of a company's profits. Let's take a look at these figures in action.

Profit and Loss Account for Sparkling Crystal Ltd in 2018		
	Expenses	Income
<b>Sales Revenue (a.k.a. Turnover)</b>		£100,000
Raw materials	£2000	
Production supplies	£1000	
Other production costs	£3000	
<b>Cost of Sales</b>	<b>£6000</b>	
<b>GROSS PROFIT</b>		<b>£94,000</b>
Business expenses	£1900	
Administrative expenses	£1100	
<b>Other Operating Expenses</b>	<b>£3000</b>	
<b>OPERATING PROFIT</b>		<b>£88,000</b>
<b>Interest Paid</b>	£965	
<b>NET PROFIT</b>		<b>£87,035</b>



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The profit and loss account shows that Sparkling Crystal Ltd made £14,000 in sales

- Subtract Cost of Sales (sum of raw materials, production supplies and labour) of £8,000
- Subtract other operating expenses (sum of business expenses and administrative expenses) to find the operating profit of £5,000
- Finally, subtract interest paid from the operating profit in order to find the bottom line profit, which comes to £4,035

## Profitability

You can use the profit and loss account as a way to calculate a firm's profitability, expressed as a percentage of sales revenue, known as profit margin. This is shown as a ratio: how much of the company's sales revenue represents profit.

These ratios (*gross profit margin*, *operating profit margin* and *net profit margin*) help businesses to understand their profitability as they give a more informed idea of how much profit the firm can expect depending on the sales revenue they make.

### Gross Profit Margin

This shows how much of a company's sales revenue represents actual gross profit. For Sparkling Crystal Ltd:

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Revenue}} \times 100$$

$$\text{Gross Profit Margin} = \frac{8000}{14000} \times 100$$

$$\text{Gross Profit Margin} = 57.14 \text{ per cent}$$

This calculation shows us that for every £1.00 of sales revenue for Sparkling Crystal Ltd, £0.57 represents gross profit, i.e. every pound represents £0.57 of gross profit.

### Operating Profit Margin

This shows how much of a company's sales revenue represents actual operating profit. For Sparkling Crystal Ltd:

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Revenue}} \times 100$$

$$\text{Operating Profit Margin} = \frac{5000}{14000} \times 100$$

$$\text{Operating Profit Margin} = 35.71 \text{ per cent}$$

This calculation shows us that for every £1.00 of sales revenue for Sparkling Crystal Ltd, £0.36 represents operating profit, i.e. every pound represents £0.36 (rounded up) of operating profit.

### Net Profit Margin

This shows how much of a company's sales revenue represents actual net profit. For Sparkling Crystal Ltd:

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Revenue}} \times 100$$

$$\text{Net Profit Margin} = \frac{4035}{14000} \times 100$$

$$\text{Net Profit Margin} = 28.82 \text{ per cent}$$

This calculation shows us that for every £1.00 of sales revenue for Sparkling Crystal Ltd, £0.29 represents net profit, i.e. every pound represents £0.29 (rounded up) of net profit.

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## Comparing Profitability

Gross profit, operating profit, net profit. These figures are almost meaningless without going to learn anything from these numbers, they need to be compared somehow.

Profit and Loss Accounts for Sparkling Crystal Ltd			
	2014–15		2013–14
	Expenses	Income	Expenses
<b>Sales Revenue (a.k.a. Turnover)</b>		£14000	
<b>Cost of Sales</b>	£6000		£5000
<b>GROSS PROFIT</b>		£8000	
<b>OPERATING PROFIT</b>		£3200	
<b>NET PROFIT</b>		<b>£4035</b>	

The previous table shows how profit and loss accounts for Sparkling Crystal Ltd for 2014–15. The gross profit (bottom line) is much lower in 2013–14 due to the number of sales to generate.

The profit margins for 2013–14 are calculated as:

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Revenue}} \times 100$$

$$\text{Gross Profit Margin} = \frac{5000}{10000} \times 100$$

$$\text{Gross Profit Margin} = 50 \text{ per cent}$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Revenue}} \times 100$$

$$\text{Operating Profit Margin} = \frac{3200}{10000} \times 100$$

$$\text{Operating Profit Margin} = 32 \text{ per cent}$$

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Revenue}} \times 100$$

$$\text{Net Profit Margin} = \frac{2515}{10000} \times 100$$

$$\text{Net Profit Margin} = 25.15 \text{ per cent}$$

Comparing these three figures with the ones before, not only did Sparkling Crystal Ltd for 2014–15 but the company was also more profitable.

### There's Always Another Way

Companies can get the even-bigger picture on their profitability by comparing their profit and loss accounts with their competitors – that is if other companies publish their profit and loss accounts for public use statistics for their market as a benchmark for how profitable they should be compared to competition.

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## Increasing Profitability and the Difference between Cash and Profit

The long-term aim for almost any company is to make a profit. This is true for the sole trader all the way up to the multinational corporation. Companies, therefore, need to increase their profitability.

Examples of ways to achieve this include:

- Decrease cost of sales by reducing the amount of raw materials needed for each product
- Generate higher sales by increasing promotion of products/services
- Increase efficiency of workforce
- Provided there is still demand, the company could produce more goods/services to increase further sales
- Evaluate how much of the company's day-to-day expenses are essential

As explained in the previous sections, profit is the primary, long-term objective for almost all companies. Profit, on the other hand, tells us how efficient a company is.

Cash flow is critical to the day-to-day running of a business. Regardless of how much profit a company makes in the long run (they do not have enough cash to pay their suppliers from one month to the next), they will come into serious problems. These issues could lead to the business losing the trust of its customers, or, worse, going bankrupt from having so many more expenses than income.

Let's use Sparkling Crystal Ltd as an example:

Profit and Loss Account for Sparkling Crystal Ltd during 2014–15		
	Expenses	Income
<b>Sales Revenue (a.k.a. Turnover)</b>		£14000
<b>Cost of Sales</b>	£6000	
<b>GROSS PROFIT</b>		£8000
<b>OPERATING PROFIT</b>		£5000
<b>NET PROFIT</b>		<b>£4035</b>

The company had a net profit of £4035. However, take a look at their incomings and outgoings account:

Incomings and Outgoings for Sparkling Crystal Ltd 2014–15	
	£
<b>Cash received (Incoming)</b>	14000
<b>Cash paid (Outgoing)</b>	12965
<b>Net Cash Flow</b>	<b>1035</b>

Sparkling Crystal Ltd's net cash flow is positive, but it is much lower than their net profit. This is because they, and most firms, do not receive cash from sales immediately.

Certain customers, for example, will have longer payment plans than others (especially those who buy in bulk!). Some suppliers will also demand Sparkling Crystal Ltd to pay quickly (i.e. within 30 days). All of these inflows and outflows affect the company's cash flow. It is important to have cash available in order to pay their short-term debts.

Remember: profit is the goal in the long term, but a company must have cash flow to survive in the short term. When it comes to the actual running of a business, profit is important, but cash flow is essential.

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### Remember Me:

The following three calculations will be important come exam time. Make sure you understand them and have them memorised!

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Revenue}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Revenue}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Revenue}} \times 100$$

### 1.6.3 Question

5. Sweet Things Ltd is a baker of cakes, tarts and biscuits. The company's sales revenue, labour, ingredients and production supplies for the year 2014–15 were £135,000.
- Calculate the company's gross profit for 2014–15.
  - Complete the following profit and loss account for Sweet Things Ltd.

Profit and Loss Account for Sweet Things Ltd in 2014–15		
	Expenses	Income
<b>Sales Revenue (a.k.a. Turnover)</b>		£135,000
Ingredients	£13,000	
Production supplies	£6,000	
Labour costs	£35,000	
<b>Cost of Sales</b>		
<b>GROSS PROFIT</b>		
Business expenses	£8,900	
Administrative expenses	£5,000	
<b>Other Operating Expenses</b>	<b>£13,000</b>	
<b>OPERATING PROFIT</b>		
<b>Interest Paid</b>	£2,650	
<b>NET PROFIT</b>		

6. The table below shows the incomings and outgoings for Sweet Things Ltd in 2014–15.
- Calculate the net cash flow of 2014–15.
  - Give two reasons why the net cash flow for Sweet Things Ltd is different from the company's net profit.

Incomings and Outgoings for Sweet Things Ltd 2014–15	
	£
<b>Cash received (Incoming)</b>	135,000
<b>Cash paid (Outgoing)</b>	83,550
<b>Net Cash Flow</b>	

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## 1.6.4 Business Survival and Cash Flow

### Cash-flow Forecasts

Firms draw up plans in order to prepare for the future. Cash-flow forecasts show how much money comes in and out of a business over a specific period of time. Forecasts are predictions based on assumptions that have been made.

Sunny Side Up Ltd is a company that manufactures deck chairs and garden furniture. The following is a cash-flow forecast for the company during one year.

All figures in £000	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>OPENING BALANCE</b>	50	(10)	(70)	(30)	0	20	70	110
<b>INFLOW</b>								
Sales	20	20	120	110	150	130	130	110
<b>TOTAL INFLOW</b>	70	10	150	80	150	150	200	220
<b>OUTFLOW</b>								
Equipment	0	0	0	0	0	0	10	0
Wages	70	70	70	70	70	70	70	70
Factory maintenance	0	0	0	0	50	0	0	0
Marketing and advertising	5	5	5	5	5	5	5	5
Other expenses	5	5	5	5	5	5	5	5
<b>TOTAL OUTFLOW</b>	80	80	80	80	130	80	90	80
<b>CLOSING BALANCE</b>	(10)	(70)	(30)	0	20	70	110	140

**Note:** the closing balance of each month is calculated by subtracting TOTAL OUTFLOW from TOTAL INFLOW. This figure, the closing balance, is carried forward as the opening balance for the next month

**Note:** negative figures on cash-flow forecasts are shown using brackets (parentheses)

The forecast shows Sunny Side Up Ltd will have a negative cash flow by December in the spring and summer months while autumn and winter months are more difficult.

### Your turn:

Fill in the following cash-flow forecast for Sunny Side Up Ltd. The opening balance is £150,000.

All figures in £000	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>OPENING BALANCE</b>	150							
<b>INFLOW</b>								
Sales	20	20	120	110	150	130	130	110
<b>TOTAL INFLOW</b>								
<b>OUTFLOW</b>								
Equipment hire	0	0	0	0	0	0	10	0
Wages	70	70	70	70	70	70	70	70
Factory maintenance	0	0	0	0	50	0	0	0
Marketing and advertising	5	5	5	5	5	5	5	5
Other expenses	5	5	5	5	5	5	5	5
<b>TOTAL OUTFLOW</b>	80	80	80	80	130	80	90	80
<b>CLOSING BALANCE</b>								

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## The Use and Limitations of a Cash-flow Forecast

Cash-flow forecasts are useful for businesses because they show when there will be cash in and out of the business. They also show any increases in credit requirements, when cash will be tight and, therefore, the business needs to be more careful. Cash-flow forecasts are good for use in negotiations over credit terms because the business can demonstrate exactly when they expect to have the cash. This data helps businesses with financial risk, too: if a firm predicts that it is going to have a cash shortage, for instance, it will probably avoid making any large investments during that month.

There are limitations with cash-flow forecasts, however, which include:

- Forecasts are based on predictions that were accurate at the time, however the business may change (e.g. tastes in garden furniture)
- Forecasts are less accurate over long periods of time
- Unforeseen expenses may hit the business, such as from external factors
- Forecasts are only predictions and businesses should not depend on them
- Technology can change, which may make production cheaper / more expensive
- Competitors and buyers may change the market are not accounted for in the forecast
- Seasonal effects, such as buying garden furniture in summer, may change demand

### 1.6.4 Questions

7. Complete the following cash-flow forecast.

All figures in £000	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>OPENING BALANCE</b>	125							
<b>INFLOW</b>								
Sales	100	75	70	70	50	50	45	40
<b>TOTAL INFLOW</b>								
<b>OUTFLOW</b>								
Equipment hire	20	0	0	0	0	0	0	0
Wages	90	90	90	90	90	90	90	90
Factory maintenance	0	0	75	0	0	0	0	0
Marketing and advertising	10	0	0	0	0	0	0	0
Other expenses	15	15	15	15	15	15	15	25
<b>TOTAL OUTFLOW</b>								
<b>CLOSING BALANCE</b>								

8. Identify and explain one benefit and two limitations of using a cash-flow forecast.

### 1.6 Keywords

<b>Sales forecast</b>	A prediction of the sales a company will make in the next period
<b>Sales volume</b>	The number of units sold
<b>Sales revenue</b>	The amount of cash generated by selling products
<b>Fixed costs</b>	These are costs that do not change with the number of goods produced
<b>Variable costs</b>	These are costs that change according to the number of goods produced
<b>Total Costs</b>	The sum of fixed and variable costs
<b>Disposable income</b>	The amount of cash consumers have available to spend on goods and services that are not absolutely necessary
<b>Contribution</b>	The difference between the variable costs of producing a good and the revenue a company earns from selling it
<b>Break-even</b>	The point where total costs of producing a good/service and total revenue earned meet

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# Keyword Glossary

<b>Add Value</b>	When a business turns the sum of raw materials into a product more. Value added is calculated as: Selling price of product - cost of raw materials to create product/service.
<b>Break-even</b>	The point where total costs of producing a good/service and total revenue earned meet.
<b>Collateral</b>	An asset that is promised to be handed over to a lender in the event of failure to repay a loan.
<b>Contribution</b>	The difference between the variable costs of producing a good/service and the amount of revenue a company earns from selling it.
<b>Direct Tax</b>	A tax that is paid directly by the individual or organisation to the government. It cannot be avoided or shifted to another person or organisation.
<b>Disposable Income</b>	The amount of income consumers have available to spend on goods and services after paying for necessary expenses.
<b>Dividend</b>	Money that shareholders receive after all the expenses of a company have been paid.
<b>Division of Labour</b>	When the productive process is split so each individual specialises in a specific task. This can improve the speed and efficiency of production. It was first discussed by Adam Smith.
<b>Exchange Rate</b>	The price of one country's currency in terms of another.
<b>External Benefit</b>	The gains to economic agents outside the transaction from a good or service by others.
<b>External Cost</b>	The cost to economic agents outside the transaction from a good or service by others.
<b>Externality</b>	A cost or a benefit that is not captured by the market – the transaction involved in the transaction.
<b>Externality</b>	A cost or a benefit that is not captured by the market – the transaction involved in the transaction.
<b>Factors of Production</b>	Inputs used to produce goods and services: land, labour, capital and entrepreneurship.
<b>Fixed Costs</b>	These are costs that do not change with the number of goods or services produced.
<b>Float</b>	When a company decides to trade its shares on the stock market.
<b>Government Failure</b>	This occurs when resources are allocated inefficiently following government intervention.
<b>Grant</b>	Cash that is given to a business. Unlike with loans, companies do not have to pay grants back.
<b>Incentive</b>	A function of price, as a resource increases in price, suppliers produce more goods as this will earn them higher revenue.
<b>Indirect Tax</b>	Tax that is collected by an intermediary between the consumer and the producer. These sorts of taxes can be avoided through consumption in other countries.
<b>Inflation</b>	An increase in the price level of goods and services over time.
<b>Information Gap</b>	A difference between the public perception of the costs or benefits of a good or service and the actual costs or benefits. If there is a large difference then there may be a market failure in the market.
<b>Interest Rate</b>	The amount paid by borrowers of money to the lenders. It is the amount that commercial banks pay the central bank.
<b>Liquidation</b>	A company's assets are no longer enough to pay the debts. The company will then sell off its assets in order to pay what it can.
<b>Marginal Revenue</b>	The additional revenue gained by a firm from selling one more unit of a good or service.
<b>Market Failure</b>	When a good or service is underconsumed because the market does not take into account the external costs. For example, there is no market for street lighting because it is difficult to monetise the service.
<b>Market Failure</b>	This occurs when the market does not allocate resources efficiently. This happens when social costs exceed social benefits and there is a net cost to society.

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<b>Mass Market</b>	A market in which many firms sell many goods. Prices are low – but quality may also be lower. Customers will be attracted by low prices.
<b>Niche Market</b>	A market in which firms target smaller consumer groups and charge a higher price. In order to achieve this, businesses focus on producing small quantities of high-quality goods.
<b>Non-excludability</b>	A good has this characteristic if it can be consumed without the customers cannot be barred from consumption.
<b>Opportunity Cost</b>	The next best alternative that is forgone when making a choice.
<b>Private Benefit</b>	The gains to a household or firm following the consumption of a good or service.
<b>Private Cost</b>	The cost to society (those that are affected whether involved in the production or consumption) of a good or service.
<b>Private Good</b>	A good (or service) that can be consumed by someone other than the person who produced it. Hence it is excludable and rivalrous.
<b>Profit Maximisation</b>	An objective of many firms: to generate as much profit as possible from a given level of input and price.
<b>Public Good</b>	A good (or service) that can be consumed by anybody without reducing the availability of the good to others.
<b>Rationing</b>	A function of price, as a resource becomes scarce then the price rises to ration demand for it.
<b>Sales Forecast</b>	A prediction of the sales a company will make in the next period.
<b>Sales Revenue</b>	The amount of cash generated by selling products.
<b>Sales Volume</b>	The number of units sold.
<b>Satisficing</b>	The idea of achieving the minimally acceptable result rather than the optimal. In terms of business objectives this refers to the idea that a firm sets a minimum level of profit that their shareholders accept – as opposed to maximising profits – instead of trying to maximise profits.
<b>Secured Loan</b>	A loan issued by a bank with some sort of asset (property) as collateral. This asset can be claimed by the issuer of the loan. A secured loan will have lower borrowing costs (interest rate) than an unsecured loan.
<b>Share</b>	Partial ownership of a company. If, for example, a company has 100 shares and one person owns 10 shares, they own 10 per cent of the company.
<b>Shareholder</b>	A partial owner of a company. Shareholders invest money in a company and have a stake in its success.
<b>Signalling</b>	A function of price, the idea that price sends messages to consumers about whether or not to enter a market. Falling prices will prompt consumers to enter a market; rising prices will prompt producers to enter a market.
<b>Social Benefit</b>	The gains to society (those that are affected whether involved in the production or consumption) of a good or service.
<b>Social Cost</b>	The cost to a household or firm following the consumption of a good or service.
<b>Social Optimum Position</b>	The ideal balance between supply and demand for a good or service, which is the actual market equilibrium.
<b>Specialisation</b>	When a factor of production (such as labour) is devoted to a specific task, the effect being an increase in efficiency.
<b>Stakeholder</b>	A person or organisation that has interest in, and/or is affected by, the success or failure of a business.
<b>Stock market</b>	A place where company shares are bought and sold. Examples include the New York and London stock exchanges.
<b>Subsidy</b>	Money paid by the government to boost the production of a good or service to correct the underprovision of a good by the market.
<b>Total Costs</b>	The sum of fixed and variable costs.
<b>Unemployment</b>	The percentage of people in an economy who are economically inactive or in employment.
<b>Variable Costs</b>	These are costs that change according to the number of units produced.

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# Answers

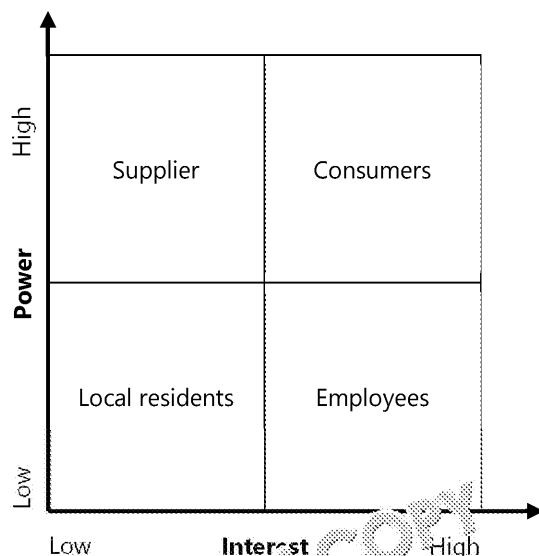
## 1.1 Scarcity, Choice and Potential Conflict

1. The basic economic problem is that humans have unlimited wants and needs – but the resources available to satisfy them are limited. This is the idea of *scarcity*.
2. If you choose to spend it on the revision book then the private benefit is owning the book and the opportunity cost is not seeing the film when it comes to exam time. The opportunity cost is the enjoyment of seeing a film with friends.

If you choose to go to the cinema then the private benefit is seeing the film – but the opportunity cost is not owning the book and possibly having to pay for it.

3. Students should show understanding of the SMART acronym:
  - **S**pecific
  - **M**easurable
  - **A**chievable
  - **R**elevant
  - **T**ime-bound
4.
  - a) At the point of sales maximisation, firms are producing as many goods as they can.
  - b) The objective of profit maximisation aims to generate the most money possible for a business.
  - c) When a firm aims to generate revenue between a minimum and absolute maximum, it is operating on satisficing.

5. The following shows a completed stakeholder map for Tennis Elbow Ltd:



6. **Shareholders and Employees:** While shareholders might be looking for higher profits, employees may rather see if higher profits were spent on increasing salaries or improving working conditions.

**Suppliers and Consumers:** Tennis Elbow's consumers may demand more products than the suppliers can fulfil.

**Business Owners and Local Community:** If the business owners wish to expand Tennis Elbow in order to do so. This may bring about pollution and/or congestion and go against the interests of the local community.

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## 1.2 Enterprise, Business and the Economy

1. a) The calculation used to define value added is:  
Selling price of product/service – Total cost of producing the product/service
- b) Students should identify two ways for each form:
  - i) Functional ways of adding value include: cash discounts; increasing price; and of payment.
  - ii) Aesthetic ways of adding value include: celebrity endorsement; innovative
2. a) The obvious answer is that tablet computers might cause a decline in sales of real players, physical maps, cameras, etc.
- b) It is a whole new industry that creates jobs. But it also means that the market for the old industry might be eroded by newer companies that use the same factors of production at a lower cost. Furthermore, it arguably improves the lives and well-being of users – a quest for economic growth.
3. Examples of reasons why entrepreneurs are creative by nature; they are inspired by their own ideas.
4. a) Social Justice Ltd: ethical/moral stance  
b) Imagine Inspire Innovate Ltd: creativity  
c) Bargain Prices Plc: profit  
d) Green Warriors Ltd: ethical/moral stance  
e) Handmade Gifts: home working

It could be argued that some of these names fall into more than one category; Handmade Gifts allow the business owner to support local businesses while Imagine Inspire Innovate Ltd is making a profit with creativity being a side effect. However, the only thing that we know for so that is all learners have to make any judgments.

5. a) Learners should show understanding of the fact that physical capital refers to tangible equipment, while financial capital focuses on money. Entrepreneurs use their financial capital to acquire physical capital.
- b) For this answer, learners should show understanding that flexibility comes from the ability to move resources from one part of a business or to a different part of the economy.
6. Students should show understanding of all four factors of production: enterprise, land, capital and labour.

Examples of factors that James could employ include:

- **Enterprise:** James may be a good chef, but how good is his idea? Has he done his market research? Is his idea going to hit the mark within his chosen target audience? Enterprise means that James needs to be sure that he is going to make a profit from his investment.
- **Land:** natural resources for James's business include contracts with farms and suppliers to ensure he has access to the raw materials it needs.
- **Capital:** physical capital that James needs includes equipment, rent, facilities and premises. Of course, he will need financial capital, i.e. money to put down for either rent or purchase of premises.
- **Labour:** this will include the employment of kitchen staff, front of house and management.

7. Learners should show understanding of the fact that, while effective, specialisation can lead to a lack of diversity and an increase in susceptibility to economic shocks. If one country's economy fails, all other economies that relied on the goods it produced will be affected.
8. Learners should show understanding of the advantages and disadvantages that come with specialisation.

Possible advantages may include:

- Workers become more expert at their specific task
- The business can focus on producing more of its most popular pottery, which leads to economies of scale
- Efficiency of the workforce increases through practice and the fact that there is little change in the workforce
- With increased efficiency come lower overall costs of production

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Possible disadvantages may include:

- Workers can become unskilled in every other aspect of the business
- Repetition of a task can lead to demotivation of staff
- Once motivation levels reach a low, production costs will begin to increase as it takes longer to produce its goods
- Demotivation can also lead to boredom and, potentially, a higher number of errors
- Division of labour can create a divide between departments, making communication difficult as every worker did the same job

The learner can argue either side for this answer as long as it is backed up with logical arguments provided.

**9. Benefits**

- Businesses can increase their prices without raising production costs
- It raises the value of property and stock

**Drawbacks**

- Consumers may become price-sensitive
- Business costs may become much tighter
- Suppliers are able to increase their prices
- Company workers make demands for higher pay

**10. Learners should be able to explain that:**

- If China's currency appreciates, demand may rise from that country since now buyers can make more purchases.
- If the USA's currency depreciates, demand may decrease in that country since the pound makes the £ appear strong and, therefore, expensive.
- If the UK's currency appreciates, both Chinese customers and those in the USA may buy from the company since the price of the £ has increased.

## 1.3 Introducing the Market

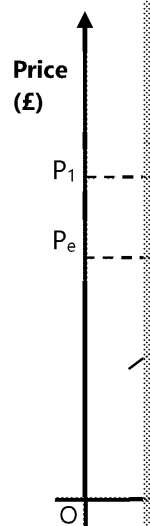
- The demand curve is downward-sloping because as the price increases consumers will buy less. At low prices the quantity demanded is high, and at high prices the quantity demanded is low.
- There are several factors listed in the text that explain why the demand curve might shift.
  - Changes in prices for other goods
    - Demand for a good might be affected by the price of another good. If one good is consumed with another, similar good, then an increase in price of the first good will reduce demand for the other.
  - Changes in income
    - If people feel wealthier then they tend to consume more and demand increases. For example, if interest rates increase then homeowners will feel wealthier and purchase more goods and services.
  - Changing demographics
    - The average age of a population might change over time. An ageing population will see demand for retirement homes, cruise holidays, etc. A population with a high fertility rate will see demand for childcare services, etc.
  - Seasonal changes
    - The time of year can affect demand for certain goods and services. Demand for winter clothing is high in the winter. The summer will see outward shifts in demand for ice cream, etc. Demand for coats and scarves.
  - Changes in preferences
    - Consumers' preferences change over time. For example, over recent years there has been a large outward shift in demand for recreational road bikes, fuelled by British success on the international stage, and growing awareness of the health benefits of cycling.
- The supply curve is upward-sloping because as the price increases suppliers are willing to supply more. At low prices the quantity supplied is low, at high prices the quantity supplied is high.

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4. There are numerous factors that might cause the supply curve to shift. For example:
- Changes in the cost of production
    - An increase in the cost of raw materials can shift the supply curve inwards if
  - New technology
    - If new technological processes are discovered that improve production efficiency, the supply curve shifts outward.
  - Subsidies
    - A subsidy on production will shift the supply curve outwards. Governments may subsidise the production of goods, for example, in order to guarantee food supplies.
  - Taxes
    - Indirect taxes will shift the supply curve inwards as the cost of production is increased.

5. If a good is oversupplied – that is, supply at a certain price is higher than the quantity that consumers are willing to purchase – then the price will necessarily fall. In the diagram to the right,  $Q_s > Q_d$  is higher than the quantity demanded.  $Q_d$  at  $P_1$  this price consumers are not willing to purchase that amount of goods. The result is that producers will have to reduce the supply and the price at which they are willing to sell until they won't see the goods. Eventually, supply and demand interact and the new price is determined at  $P_e$ , and  $Q_e$  goods are produced.



6. The 'ceteris paribus' idea – which means 'all other things being equal' – is important because it allows us to focus on a single idea and ignore any other factors that may affect it. It can be used to ignore both known and unknown factors.
7. Rationing, incentive and signalling. See text for details of each.
8. Prices are likely to be higher. Firms operating in niche markets can charge more due to factors such as brand loyalty and higher-quality products.
9. Reading through market reports is considered secondary market research, as it is secondary research is conducted by gathering first-hand information on a target market (such as a survey).
10. a) Advantages of primary research include: reveals new information; keeps the researcher close to the market; and allows the business time to concentrate on its target market.  
b) Limitations could include: size (i.e. too small a sample); bias (i.e. interviewer already knows the answer); representation (e.g. regions can differ); expense and time consumption (e.g. closed questions).
11. Students should create a market map with two opposing axes, such as price (low to high) and add in any products to compare. Gaps in the map may signify a genuine market need or a reason for not filling some gaps, such as a high-priced chocolate bar of extremely low quality.
12. a) Price skimming  
Advantages include: businesses make the most of their product before rivals can enter the market; and allows the business time to concentrate on its target market.  
Disadvantages include: a high price may cause a consumer backlash once people learn the product is available at a lower price; and if a firm's price is too high, no one will buy from them.  
b) Competitive pricing  
Advantages include: justifiable changes and ease of calculation.  
Disadvantages include: price sensitivity and overestimation of price.  
c) Premium pricing  
Advantages include: the illusion of quality and making a brand stand out.  
Disadvantages include: the threat of cheaper alternatives and isolation of lower-priced products from the mass market.

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## 1.4 The Role of Credit in the Economy

1. An unsecured loan is more expensive (it will have higher interest rates). This is because the recipient of the loan cannot repay the money back the bank has no collateral it can claim to reflect this higher risk of default.
2. Businesses might need access to finance for many reasons. It might be necessary in order to expand an already established enterprise. It may simply be needed to cover outgoing costs in which case an overdraft might be used).
3. Students must show understanding that limited liability means shareholders are only liable for the investment they put into the company, i.e. worst-case scenario: they only stand to lose their investment.
4. Companies that have **limited** liability will normally grow faster than companies with **unlimited** liability. This makes them more difficult to manage as firms that have **unlimited** liability often have complex ownership structures. Shareholders have certain powers over companies with **limited** liability, such as being able to elect directors. The owner of a company with **unlimited** liability is personally liable for the company's debts and, therefore, a company with **unlimited** liability may stop functioning if the owner goes bankrupt. A company with **limited** liability can continue on regardless of who ends up leaving the company. Companies with **limited** liability have more options available for raising finance than companies with **unlimited** liability.



5.

Source of Finance	Method of Finance
Personal savings	Overdraft
Individual investor	Loan
Bank	Trade credit
Retained profit	Share capital
Other firms	Venture capital

6. Students are expected to choose retained profits in this instance. Reasons for this decision are:
  - Retained profits can be accessed with very little effort on the business's part
  - investment can make the business look more attractive to other potential investors, leading to further growth
  - This is better than personal savings. If Mariah Cherry used her own personal savings, she would be completely liable if the venture failed
  - This is also better than sale of assets. Mariah Cherry's business is still quite small and has few assets of worth to sell, besides the original location which is currently the only asset.
  - **One note on retained profits, however:** the business must be careful of the amount of retained profits to ensure that it will pay off



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## 1.5 Market Failure and Government Intervention

- Private costs directly affect the economic agents involved in a market transaction.
  - Social costs are the total costs: both private and external costs combined.
  - External costs impact a third party that is otherwise not involved in a market transaction.
- Private benefits affect the economic agents involved in a market transaction.
  - Social benefits are the combined private and external benefits.
  - External benefits affect a third party that is otherwise not involved in a market transaction.
- A market might fail if the external benefit (which offers a positive externality) is not captured or a service provides benefits that are not reflected in the market price and is *underconsumed* (e.g. healthcare, pensions).
- A market might fail if the external cost (which offers a negative externality) is not captured or a service provides benefits that are not reflected in the market price and is *overconsumed* (e.g. fatty food).
- A good example is education. If children (or their families) had to pay for the education at school, there would be fewer benefits to society. An educated population is more productive and contributes to economic growth. If children are in school there may be lower levels of delinquency and crime.
- A government might introduce a minimum wage to guarantee a certain standard of living. However, if this wage is above the market wage then it can cause unemployment because the number of people willing to work for that wage exceeds the number of jobs available at that wage. Whether or not this is an example of government failure is a subjective question. For those *with* a job a certain level of income. However, it might lead to an increase in the cost of production.

## 1.6 Revenue, Costs, Profits and Cash

- a)

$$\text{Sales Volume} = \frac{\text{Total Sales Revenue}}{\text{Selling Price Per Unit}}$$

$$\text{Sales Volume} = \frac{6950}{12.50}$$

$$\text{Sales Volume} = 556 \text{ units}$$

- b)

$$\text{Sales Revenue} = \text{Price per unit} \times \text{Number of units sold}$$

$$\text{Sales Revenue} = 12.50 \times 13000$$

$$\text{Sales Revenue} = \text{£}162,500$$

- Fixed costs

- Mortgage on factory
- Salary for 15 regular staff
- Annual interest on loan
- Electricity and phone bills
- Regular replacement of equipment

Variable costs

- Production line costs
- Raw materials for masks
- Extra staff during busy season

- a)

$$\text{Contribution} = \text{Selling Price of one good} - \text{Variable Costs of one good}$$

$$\text{Contribution} = 12.50 - 4$$

$$\text{Contribution} = \text{£}8.50$$

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b)

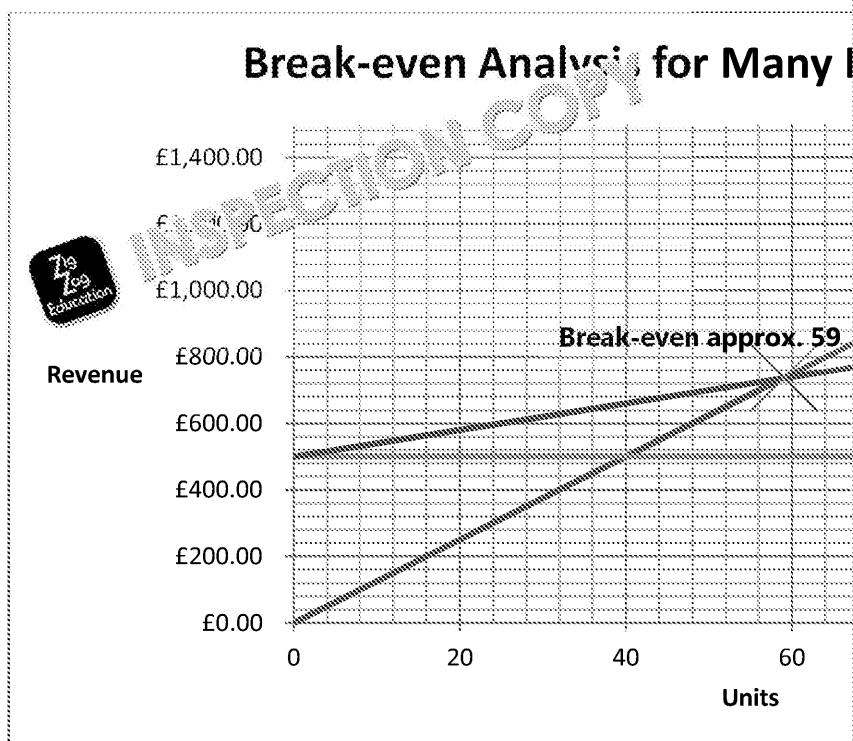
$$\text{Break even point} = \frac{\text{Total Fixed Costs}}{\text{Contribution Per Unit}}$$

$$\text{Break even point} = \frac{500}{8.50}$$

$$\text{Break even point} = 58.82$$

$$\text{Break even point} = 59 \text{ units}$$

c)



4. Limitations might include:

Break-even charts work best when analysing just one product/service. Any company that produces multiple products, then, would find break-even a difficult method to use effectively.

A company's break-even analysis assumes that all products manufactured will also be sold, so does not give an accurate impression of the business' finances.

Break-even charts do not include unforeseen costs that a company might incur. If unexpected costs arise, the break-even point would likely have to shift continually.

Likewise, break-even charts only take into account those factors that companies can control, ignoring external factors.

5. a)

$$\text{Gross Profit} = \text{Revenue} - \text{COS}$$

$$\text{Gross Profit} = 135000 - 54000$$

$$\text{Gross Profit} = \text{£}81,000$$

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b)

Profit and Loss Account for Sweet Things Ltd in 2014		
	Expenses	In
<b>Sales Revenue (a.k.a. Turnover)</b>		<b>£1</b>
Ingredients	£13000	
Production supplies	£6000	
Labour costs	£35000	
<b>Cost of Sales</b>	<b>£54000</b>	
<b>GROSS PROFIT</b>		<b>£8</b>
Business expenses	£8900	
Administrative expenses	£5000	
<b>Other Operating Expenses</b>	<b>£13000</b>	
<b>OPERATING PROFIT</b>		<b>£2</b>
Interest Paid	£2650	
<b>NET PROFIT</b>		<b>£2</b>

6. a)



Incomings and Outgoings for Sweet Things Ltd 2014-15	
	£
<b>Cash received (Incoming)</b>	<b>135000</b>
<b>Cash paid (Outgoing)</b>	<b>83550</b>
<b>Net Cash Flow</b>	<b>51450</b>

b) Answers may include (but not limited to) debtors paying in the next tax year, sales and government grants.

7.

All figures in £000	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>OPENING BALANCE</b>	125	90	60	(50)	(85)	(140)	(195)	(230)
<b>INFLOW</b>								
Sales	100	75	70	70	50	50	45	40
<b>TOTAL INFLOW</b>	225	165	130	20	(35)	(90)	(150)	(230)
<b>OUTFLOW</b>								
Equipment hire	20	0	0	0	0	0	0	0
Wages	90	90	90	90	90	90	90	90
Factory maintenance	0	0	75	0	0	0	0	0
Marketing and advertising	10	0	0	0	0	0	0	0
Other expenses	15	15	15	15	15	15	15	20
<b>TOTAL OUTFLOW</b>	135	105	180	105	105	105	105	110
<b>CLOSING BALANCE</b>	90	60	(50)	(85)	(140)	(195)	(255)	(330)

8. Benefit:

Timings. Firms use cash flow forecasts to predict when cash comes in and goes out. This helps firms have a better idea of their cash flow and when a negative one, giving them a good idea of when bills.

Limitation one:

Cash flow forecasts do not work well as long-term prediction as firms do not always know how things will come their way.

Limitation two:

Technology can change, making the production process cheaper / more expensive. Likelihood of affecting the demand for the company's products/services.

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