

## **Theme 2: Managing Business Activities**

### Course Companion for AS and A Level Edexcel Business

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# Teacher's Introduction

This resource has been written to support the learning and teaching of Edexcel Level 3 Advanced GCE in Business (Theme 2: Managing Business Activities). 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 each chapter, you will find a list of contents showing every specification point that is covered. There are also questions and answers at the end of each chapter that help students transfer their knowledge into real-world business contexts. Any key terms are explained chapter by chapter and are also revisited as a glossary at the end of the resource.

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

- **QS 1:** calculate, use and understand ratios, averages and fractions (chapters 2.2.2., 2.3.1. and 2.3.2.)
- **QS 2:** calculate, use and understand percentages and percentage changes (chapters 2.2.4., 2.3.1. and 2.4.2.)
- **QS 3:** construct and interpret a range of standard graphical forms (chapters 2.1.4., 2.2.2. and 2.2.3.)
- **QS 4:** interpret index numbers (chapter 2.5.1.)
- **QS 5:** calculate cost, revenue, profit and break-even (chapters 2.2.2. and 2.2.3.)
- **QS 8:** use and interpret quantitative and non-quantitative information in order to make decisions (all chapters)
- **QS 9:** interpret, apply and analyse information in written, graphical and numerical forms (all chapters)

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 methods of finance and sales forecasting to budgets, break-even and capacity utilisation. 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 Edexcel examination, will help students build on their research and dissemination skills. The business world is a constantly changing one full of fascinating stories. This resource attempts to share some of these stories as a basis for teaching in the most interesting way possible, meanwhile encouraging further study from the next generation of business analysts!

Happy teaching!

## Free Updates!

Register your email address to receive any future free updates\* made to this resource or other Business 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

Go to **[zzed.uk/freeupdates](http://zzed.uk/freeupdates)**

## 2.1. Raising Finance

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

The two main sources of finance available to businesses are generally internal and external. Internal finances are raised from within the business, such as selling company assets, while external finances are raised from outside the company, such as issuing shares to the public.

### 2.1.1. Internal Finance



#### Key Points Covered

- Personal Savings
- Retained Profit
- Sale of Assets

#### Personal Savings

This finance, also known as the owner's capital, is the amount of cash that the business owner has invested. Personal savings are generally used by sole traders, partnerships and fresh start-up businesses.

##### ✓ 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 bank or 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 serious loss for the owner, who has invested so much.
- Owners can be over-controlling of a business if they are also the investors.

#### Retained Profit

This is the profit that a business keeps after all expenses, taxes and shareholder dividends. Retained profit is a source of finance 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 collateral. Since the business already owns the retained profits, no collateral is needed.
- Investment of retained profits can lead to development of a business, which can lead to further growth. This would help increase the value of the business, which could attract further investment.

##### ✗ Disadvantages of retained profit include:

- If a business makes a considerable amount in retained profits, shareholders are not receiving higher dividends. This can lead to de-investment and a potentially negative image for the business.
- There is an opportunity cost to be considered: a business might be developing their business or saving them in order to generate a healthy amount of profit. If they are not investing their retained profits, they must be sure that they are going to develop their business more than the interest they could have made by investing.

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## Sale of Assets

This involves a business selling off their possessions, such as property or vehicles, in order to generate finance. This source is available to most business types, except new start-ups since they generally will not have any assets that they can afford to sell.

### ✓ Advantages of sales of assets include:

- It allows businesses to focus their funds on developing themselves, rather than keeping money locked up in assets
- Unlike a bank loan, for example, the finance is freely available to the business; all they need to do is sell the asset

### ✗ Disadvantages of sales of assets include:

- An asset is no longer an asset once it is sold; if a business still needs access to a factory, for example, but has already sold its asset, it will need to rent one. Essentially, this turns a business's asset into a cost.
- The business needs to be sure that the asset is worth less to it than the now-available cash. This is a risk for any business.



## 2.1.1. Questions

Please write your answers on a separate piece of paper or in an exercise book.

1. Identify and explain one advantage and one disadvantage for businesses using this source of finance:
  - a. Personal savings
  - b. Sale of assets
  - c. Retained profit
2. Mariah Cherry is the owner of a small greengrocer business. Cherry currently has to purchase another in order to grow her business. She has three choices for how to fund this new location: personal savings, retained profits or sale of assets.

Identify and explain which of the three methods of finances would be best for Mariah.



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## 2.1.2. External Finance



### Key Points Covered

- Sources of Finance
- Methods of Finance

While *sources* of finance include the people and organisations that offer funding to the business, *methods* of finance is the way in which the finance is delivered to the business (and often how the business repays the finance).

### Sources of Finance

#### Family and Friends

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



#### Advantages of family and friends as a financial source include:

- Business owner and friend / family member can negotiate a payback plan.
- Securing the finance is a relatively quick process since both the business owner and the friend/family member already know each other.



#### Disadvantages of family and friends as a financial source include:

- Family/friends have a share in the business's profits. In the beginning, the business may need another £10,000 in order to start trading. If a friend then puts up £10,000, the friend could represent half the business. In five years' time, the business could be worth £100,000 and the friend who originally put up £10,000 would own half of that.
- Family/friends have a say in business activities. By investing financially, they have a substantial share in the business and, therefore, be able to influence the business.

#### 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 large amount of money.
- The bank will not be a shareholder in the business and so the owner is free to use the money as they please.



#### 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.

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## Peer-to-peer Funding

This source of finance, also known as *peer-to-peer lending*, can involve any number of investors. Businesses request peer-to-peer funding by making formal applications stating how much money the business needs and what they intend to do with it. Each proposal is sent to potential investors who can see it. Investors are then welcome to put down as much, or as little, as they like (there is normally a minimum investment amount). Once the proposal gets enough support, the business receives 100 per cent of the requested finance.

Peer-to-peer funding is generally a source of finance chosen by start-ups and development firms. These 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 organised online
- Peer-to-peer funding acts as a forum for business proposals: if the funding is not successful, a 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 confirmed investment to cover 100 per cent of the proposal by the time limit, all the money is lost
- While it does not cost the business financially, it takes a lot of time and effort to create a peer funding proposal

## Business Angels

These investors offer their money, and services, to businesses often in exchange for a share in the business. Business angels generally concentrate on bets that are 'unsafe'; such businesses are often start-ups or businesses anywhere else and so the business angel can demand a more favourable share in the business.

### ✓ Advantages of business angels as a financial source include:

- When a business has exhausted all other possibilities, a business angel can provide the finance
- Business angels also offer management advice, which can be vital to the success of the business

### ✗ Disadvantages of business angels as a financial source include:

- Since business angels prey on businesses that seem unsafe to other investors, they may negotiate a deal that benefits themselves but not the business
- Business angels can ask for a significant share in any business they help to finance, which can be a problem between management

## Crowd Funding

This source works in a similar way to peer-to-peer funding with the main difference being that crowd funding is a loan, crowd funding offers a grant. Crowd funding of a business is also a way for businesses to raise finance from individuals who are already interested in the business. For example, if a business is a music bar, the crowd funders will be fans. Like peer-to-peer, if a business requests crowd funding, they must receive the finance within a specified time limit; if they do not, they receive nothing. With crowd funding, businesses often offer something in exchange for a loan, such as a copy of the new record once its recording is complete. An author who is standing for her next book.

### ✓ Advantages of crowd funding as a financial source include:

- There are few financial costs involved for the business, because crowd funding is organised online
- Crowd funding acts as a forum for business proposals: if the funding is not successful, a problem with the proposal

### ✗ Disadvantages of crowd funding as a financial source include:

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

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## 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 small firms
- If a business buys significant shares in a smaller firm, they can grant access to marketing power and commercial contacts, which would help

### ✗ **Disadvantages of other businesses as a financial source include:**

- If investors own a large share of the business, they will have significant influence which could cause conflict within the organisation
- Many small firms make their mark by targeting consumers who are independent (and often ethical) business. The small firms must be careful of processes due to investor influence: small firms that start behaving like (i.e. other bigger businesses) can lose the customer base that they originally built.

## Methods of Finance

### 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 when they have money
- Businesses do not need to propose anything with their bank before using them (they wish to 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

Loans, provided by banks and other financial establishments, differ from overdrafts. A business can use an overdraft as and when they need it (provided they haven't already reached the limit). 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 agreed 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 assets
- Since each loan is specific to the business, the loan provider will generally only lend what the business has in assets

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## 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 shares can change over time. If a business becomes successful, it 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 lose more than their investment even if the business makes a loss

### ✗ Disadvantages of share capital as a method of finance include:

- When investors are buying shares in a business, they gain an element of interest.
- Shareholders expect dividends if a company is profitable, which means the development of the firm

## Venture Capital

This method of finance starts with a proposal; a business puts forward a plan to an investor, such as a business angel, to explain what the business wishes to do and how much money it needs. 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*:

<http://www.bbc.co.uk/dragonsden/entrepreneurs/leviroots.shtml>

(video link)

### ✓ Advantages of venture capital as a method of finance include:

- Many venture capitalists are also successful business leaders and so can offer advice to businesses
- Venture capitalists aim for big rewards by taking risks and so they are more likely to invest in new ideas even when all other investors say no.

### ✗ Disadvantages of venture capital as a method of finance include:

- By investing in the company, the venture capitalist is taking a risk and expects a high return on their investment. This can lead to a high demand of dividend payments from the company.
- Advice is not always helpful to businesses, but investors can become too involved in the day-to-day operations of the company.

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## Leasing

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

### ✓ Advantages of leasing as a method of finance include:

- Businesses that lease do not have large amounts of money wrapped up in one item, leaving cash left 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 on property is a continual cost for the business, which would be avoided if the property, however (e.g. through taking out a mortgage), the business owned. At the end, which may be worth more than the money they could have received from the sale of the property
- If the owner of the leased item decides to sell it, the business has no control over the sale price

## Trade Credit

When businesses make purchases from suppliers, they often negotiate a payback period. For example, if a business is 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 income.

### ✓ Advantages of trade credit as a method of finance include:

- Every supplier works in their own way and so the business can negotiate terms that suit them. Suppliers to make certain they always have enough cash available to pay their bills
- Paying in eight weeks instead of one ensures the business has cash available for other areas of the business and 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 time they have to pay. If they don't, they may 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

## Grants

These are provided by many different entities, including government bodies, financial institutions and private businesses who wish to support the next crop of young entrepreneurs. In order to receive a grant, a business must submit a proposal to the grant provider, which shows what they plan to do with the money. If approved, the business receives the money and does not have to pay it back.

### ✓ Advantages of grants as a method of finance include:

- The funding does not cost the business anything as there is no payback
- The grant provider is not looking for a stake in the business or any control of, the business

### ✗ Disadvantages of grants as a method of finance include:

- There is often a competition with grants, such as a local council offering grants to businesses that pledge to move their production line to that particular area
- There may be stipulations, if a business does not meet all the criteria required to receive the grant, such as being under 25 or business must already have made £100,000 in profit before the funding offered

### Royal Trust Grants a Princely Sum

The Prince's Trust was set up by Charles, Prince of Wales as a charity to support young people (18 to 30) in gaining employment, education and/or starting their own businesses. It has created 125,000 entrepreneurs.

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## 2.1.2. Questions

Please write your answers on a separate piece of paper or in an exercise book.

3. Put the following methods of finance in the correct category. The first one has been done for you.

Overdraft      Loan      Personal savings      Venture capital  
Share capital      Retained profit      Grant

Internal Finance	External Finance
	Overdraft

4. Explain the difference between a source of finance and a method of finance.

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## 2.1.3. Liability



### Key Points Covered

- Unlimited Liability
- Limited Liability

A business owner that has *unlimited liability* has complete responsibility for the firm. With *limited liability*, on the other hand, has a set financial point that they are responsible for.

### Unlimited Liability

Smaller businesses, such as sole traders and partnerships are examples of unlimited liability. The person who started the business and is responsible for all assets and finance. If the business gets into financial trouble, i.e. the debts outweigh the assets available, the business owner is responsible. Unlimited liability means it is the personal responsibility of the owner to cover every penny of the business's liability, therefore, is unlimited.

### Limited Liability

This type of liability is concerned with larger firms, such as private limited companies. Each shareholder of a company is a partial owner of the entire business. This owner can own 0.1 per cent to 100 per cent of the business. Each shareholder has limited liability, which means that shareholders are only responsible for the shares they have not yet paid for.

#### 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. Five investors bought up to 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 flotation, 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 – that's why the business had to close. So who was responsible for the company's finances?*

The responsibility for Mad Hatters plc fell with the company's shareholders, who all had limited liability. This means 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. £300.00.

The Mad Hatters plc example demonstrates that it is relatively easy for businesses to issue. Investors have limited liability, i.e. limited to the value of the shares they own. They can 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*.

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### 2.1.3. Questions

Please write your answers on a separate piece of paper or in an exercise book.

5. Copy and fill in the following table.

Characteristic of a Business	Limited Liability [TRUE/FALSE]
If a business gets into financial trouble, it may go bankrupt.	
Total financial responsibility for a business falls with its owners, who are generally also the founders.	
If a business gets into financial trouble, it may go into liquidation.	
Business owners are financially responsible only for how much investment they put in.	

6. Identify  explaining one reason why it is generally easier to raise cash as a company with unlimited liability.

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## 2.1.4. Planning



### Key Points Covered

- Relevance of a Business Plan in Obtaining Finance
  - Cash-flow Forecasts
  - The Use and Limitations of Cash-flow Forecasts
- Quantitative Skills Component**  
**QS 3:** construct and interpret graphical forms

### Relevance of a Business Plan in Obtaining Finance

Imagine that you are an entrepreneur about to propose your business idea to a potential investor. Do you need a plan?

No investor is going to look twice at your business idea if you do not have a solid business plan. You need to prove to potential investors, friends, family, or any kind of financial provider. You need to prove that your business idea is viable and that it will not represent significant risk to the finance provider. A business plan allows you, the business owner, to negotiate better terms and conditions in a reasonable and logical process.

### What Goes into a Business Plan?

Without a proper plan, an entrepreneur does not really have a business to discuss. A business plan is a breakdown of what you intend to do as a business and how.

Some of the questions that business plans should answer include:

- What problems does this business idea solve?
- How does it solve the problems? Why is it solving the problems?
- How will the business make its money?
- How much money will the business make in its first year, second year, etc.?
- What is the market for this product/service?
- Who is the competition?
- How will your business compete with these? Differentiation? Unique selling point?
- How long will it take to build the business? What equipment/premises are needed?
- What profits/losses can you expect by the end of year one, year two, etc.?

Check out the BBC TV show *Dragon's Den* for some great (and not so great) examples of business plans. <http://www.bbc.co.uk/programmes/b006vq92> (video link)

### Cash-flow Forecasts

One plan that businesses often use, both when proposing their ideas to investors and when running the business, is the cash-flow forecast. This shows how much cash will be received and how much will be spent over a specific period of time. It is a prediction based on the assumption that the business has a certain level of success.

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

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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	50	80	150	150	200	220
<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>	(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 available to pay expenses. They also show when cash will be tight and, therefore, when the company needs to be more careful. Cash-flow forecasts are good for use in negotiations over finance, such as trade credit, because the business can demonstrate exactly when they expect to have the cash available to pay their suppliers.

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

- Forecasts are based on predictions that were accurate at the time; however, things change (such as consumer tastes in garden furniture)
- Forecasts are less accurate over long periods of time
- Unforeseen expenses may hit the business arising from external factors
- Forecasts are only predictions and businesses should not depend on them alone
- Technology can change which makes production cheaper / more expensive
- Competitors and how they may change the market are not accounted for
- Seasonal activity, such as buying garden furniture in summer, may change

### 2.1.4. Questions

Please write your answers on a separate piece of paper or in an exercise book.

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.

Benefit:

Limitation one:

Limitation two:

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## Focus: Innocent Drinks

### Questions:

- Identify and explain two reasons why a company chooses to issue share capital.
- Explain two ways in which Innocent Drinks' success could have been affected by the buyout from The Coca-Cola Company.
- Compare the benefits and drawbacks of a business having unlimited liability with having limited liability.
- Analyse why The Coca-Cola Company decided not to make many changes to the business practices of Innocent Drinks.

### Cambridge Students Graduate Fortune

Innocent Drinks was started in 1999 by three graduates. The company, which sells smoothies, quickly grew in popularity in the consumer market towards health goods. By 2009, Innocent Drinks was valued at £100 million. In 2010, that The Coca-Cola Company decided to buy an 18 per cent stake in the business. In 2011, Coca-Cola increased its stake in the company to 33 per cent, making the company's original value £100 million as a result.

Innocent Drinks is now mostly owned by The Coca-Cola Company, with the three founding graduates holding 10 per cent of the shares. The business practices have remained the same as of the original business, Innocent Drinks, and the Innocent Foundation in order to give a portion of the profits around the world. Since Coca-Cola continues with 10 per cent of all profits, the Innocent Foundation and the Innocent Foundation.

Source: <http://www.theguardian.com/business/2013>

## 2.1. Keywords

<b>Dividend:</b>	The share of the profits that shareholders receive.
<b>Shareholder:</b>	A partial owner of a company. Shareholders invest for a stake in its success.
<b>Grant:</b>	Cash that is given to a business. Unlike with loans, grants do not have to be paid back.
<b>Share:</b>	Partial ownership of a company. If, for example, a company has 10 shares and one 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. The New York Stock Exchange and the London Stock Exchange are examples.
<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 its debts. The company will then sell off its assets in order to close.

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## 2.1. Answers

### 1. Identify and explain one advantage and one disadvantage for business methods of finance:

#### a. Personal savings

*Advantages:*

*There are no payback terms for the owner to sign.*

*The owner may take closer care of their company because they are so*

*Disadvantages:*

*Business owner may invest too much of their own time into the firm be*

*If the firm loses money, the owner is greatly affected.*

#### b. Sale of assets

*Advantages:*

*Assets are relatively easy to convert into cash.*

*Any assets that a company owns are potentially holding money that co*

*Disadvantages:*

*Money is an integral asset. Once sold, however, it can no longer be*

*If a firm needs its asset back, it will either have to purchase or rent. Be*

#### c. Retained profit

*Advantages:*

*No confidential business information required in order to access the fir*

*The business can appear more valuable to potential investors as a resu*

*Disadvantages:*

*Too much reinvestment of retained profits can cause dissent in shareh*

*Opportunity cost of whether the investment is worth it, i.e. what is the potential payoff?*

### 2. Mariah Cherry is the owner of a small greengrocer business. Cherry is looking to purchase another in order to grow her business. She has to fund the purchase of the new location: personal savings, retained profit. Identify and explain which of the three methods of finances would be best for business expansion.

*Students are expected to choose retained profits in this instance. Reasons for*

- Retained profits can be accessed with very little effort on the business*
- Investment can make the business look more attractive to other potential investors, help further growth*
- This is better than personal savings. If Mariah Cherry used her own money to purchase a new location, she would be completely liable if the venture failed.*
- This is also better than sale of assets. Mariah Cherry's business is situated in a prime location, not have enough assets of worth to sell, she needs the original location to continue the place she generates sales*
- One note on retained profits, however: the business must be careful with the investment to ensure that it will pay off*

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3. Put the following methods of finance in the correct category. The first

Overdraft                      Loan                      Personal savings                      Venture capital  
Share issue                      Retained profit                      Grant                      Trade credit

Internal Finance	External Finance
<i>Personal savings</i> <i>Retained profit</i> <i>Sale of assets</i>	<i>Overdraft</i> <i>Loan</i> <i>Share issue</i> <i>Venture capital</i> <i>Grant</i> <i>Trade credit</i>

4. Explain the difference between a **source of finance** and a **method of finance**.  
*Source is the person/group who is offering the finance (e.g. bank), whereas the finance is delivered (e.g. loan).*

5. Copy the following table.

Characteristic of a Business	Limited Liability [TRUE/FALSE]
If a business gets into financial trouble, it may go bankrupt.	FALSE
Total financial responsibility for a business falls with its owners, who are generally also the founders.	FALSE
If a business gets into financial trouble, it may go into liquidation.	TRUE
Business owners are financially responsible only for how much investment they put in.	TRUE

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

*Students must show understanding that a company with limited liability is easier to raise capital, which companies with unlimited liability (such as sole traders) find difficult.*

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## 7. Complete the following cash-flow forecast.

All figures in £000	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.
<b>OPENING BALANCE</b>	125	90	60	(50)	(85)	(140)	(195)	(255)
<b>INFLOW</b>								
Sales	100	75	70	70	50	50	45	40
<b>TOTAL INFLOW</b>	225	165	130	20	(35)	(90)	(150)	(215)
<b>OUTFLOW</b>								
Equipment hire	20	0	0	0	0	0	0	0
Wages	90	90	90	90	90	90	90	90
Factory main	0	0	75	0	0	0	0	0
Market and advertising	10	0	0	0	0	0	0	0
Other expenses	15	15	15	15	15	15	15	25
<b>TOTAL OUTFLOW</b>	135	105	180	105	105	105	105	115
<b>CLOSING BALANCE</b>	90	60	(50)	(85)	(140)	(195)	(255)	(330)

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

Example benefits:

- *Timings.* Firms use data to predict when cash comes in and goes out. This helps them understand when they will have a positive cash flow and when a negative cash flow occurs, so they can plan when they can afford to pay suppliers and bills.
- *Guidelines.* Some businesses use forecasts in order to mark out sales targets and plan their production levels.

Example limitations:

- *Cash flow forecasts do not work well as long-term predictions as firms cannot predict all the bills that are going to come their way. They are only predictions!*
- *Technology can change, making the production process cheaper / more expensive. This can change all the time, affecting the demand for the company's products.*

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## 2.2. Financial Planning

### 2.2.1. Sales Forecasting



#### Key Points Covered

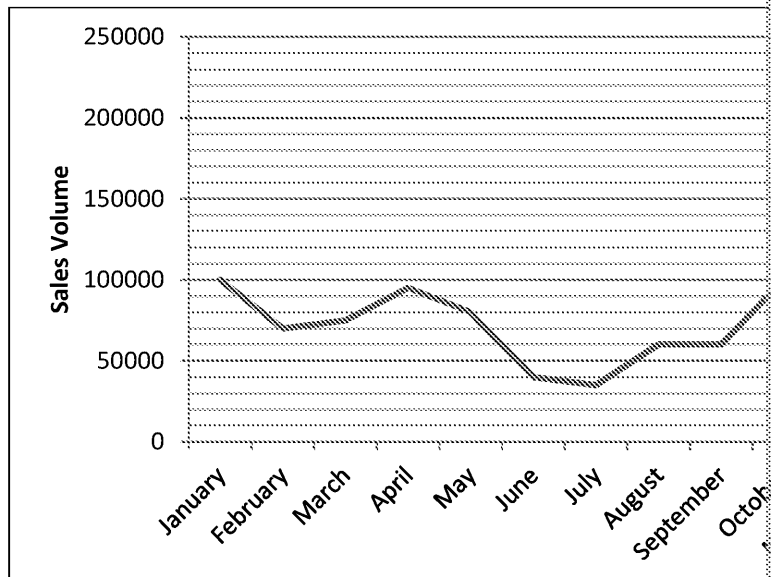
- The Purpose of Sales Forecasting
- Factors Affecting Sales Forecasts
- Difficulties of Using Sales Forecasts

In order for a business to create an effective cash-flow forecast (see section 2.1.4.) it needs to know what sales they can expect.

#### The Purpose of Sales Forecasting

Businesses draw up sales forecasts in order to make better decisions, such as when to recruit staff or hire equipment.

Racing Stripes plc is a car-painting service based in the UK. The company, which has been in business for 10 years, has drawn up a forecast of the number of sales they expect to make during 2016.



Graph: Sales forecast for Racing Stripes plc during 2016

The forecast shows that Racing Stripes plc expects the majority of its sales to come in January, April, and September. The company may need to plan for this spike in sales; they could do this by advertising more in those months or renting out more equipment for those months in order to handle the extra work.

This theory goes for low points in sales, too. Racing Stripes plc expects July to be a low point in sales and so it does not make any plans to hire extra staff during that period.

#### Factors Affecting Sales Forecasts

##### Consumer Trends

Just because something is popular one year does not mean it will still be that way the next year. Consumer trends change in their minds often and companies should be aware of any market trends that could affect their sales.

Changes in consumer trends can come for all sorts of reasons, such as:

- Advanced technology creating demand for different products/services
- Environmental or ethical issues growing in importance
- Fashion changes
- Celebrity endorsement

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### Economic variables

Companies should be aware of any economic variables that will affect their market when forecasting sales. In times of economic decline, for example, average consumption is lower than they would have during economic growth.

### Competition

Companies need to stay up to date on their rivals and what they are bringing to the market.

Example:

If a mobile phone company introduces a product that is an instant hit, the rest of the market will probably suffer by making fewer sales. The other companies will then either have to make strategic decisions (such as introduce their own version of the same product) or will have to reflect the change.

### External factors

For many businesses, there are factors far beyond their control. If a business imports goods from a foreign country, for example, that country is suddenly torn apart by war, the company will suffer reduced sales. The same countries could also be affected by natural disasters such as a severe winter, and the companies involved would suffer in reduced sales.

#### Your turn:

Identify which factors could affect the sales forecast of Racing Stripes plc. Explain your response:

- Should it change its sales forecast?
- Would it be better for Racing Stripes plc to make different business decisions?

## The Difficulties of Using Sales Forecasts

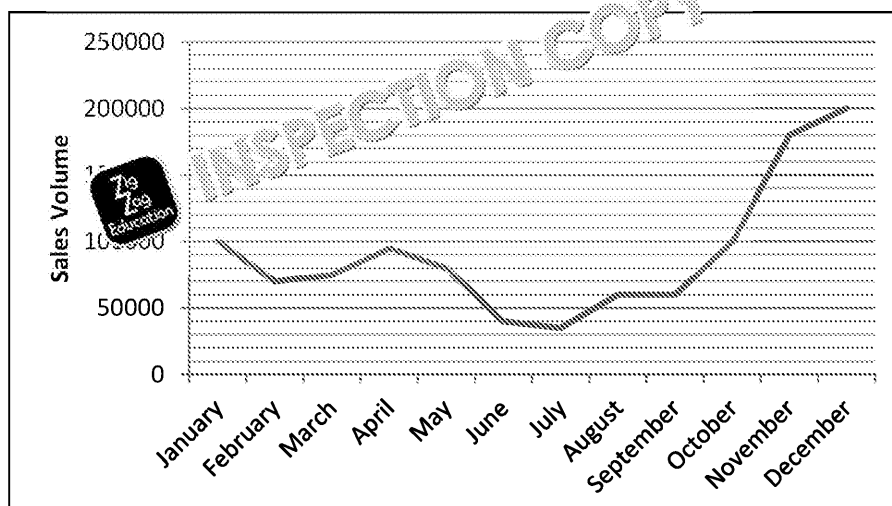
Much like cash-flow forecasts, sales forecasts are limited in their usefulness:

- Forecasts are less accurate over long periods of time
- They are only predictions and so businesses should not depend on them as a guarantee
- Any factors that can affect a business's sales, such as economic decline, competition, or changes in demand, are not accounted for in a forecast
- Forecasts are correct to the best of a business's own knowledge, but they are not a guarantee of the market as a whole – it is a one-sided presentation

### 2.2.1. Questions

Please write your answers on a separate piece of paper or in an exercise book.

1. Identify and explain three factors that can cause sales forecasts to increase or decrease.
2. Take another look at the sales forecast for Racing Stripes plc.



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## 2.2.2. Sales, Revenue and Costs



### Key Points Covered

- Calculation of Sales Volume and Sales Revenue
- Calculation of Fixed Costs and Variable Costs

### Quantitative Skills Covered

**QS 1:** calculate, use and

**QS 3:** construct and interpret graphical forms

**QS 5:** calculate cost, revenue

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

### Calculation of Sales Volume and Sales Revenue

#### Sales Volume

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

- *Price per unit*, i.e. 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:

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

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

$$\text{Sales Volume of Alarms 4 U Ltd} = 2,800 \text{ units sold}$$

#### 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*.

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 its sales revenue, it is one step closer to being able to work out its gross and net profits. First, however, it needs to calculate its *fixed costs* and *variable costs*.

### Fixed Costs

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

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

#### Focus: Annual Interest

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



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

$$\text{Annual interest paid} = 25,000 \times 0.05$$

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

### 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.

### Difference between Fixed and Variable Costs

A firm's fixed costs are an expense whether they make any money or not and so they are constant. Variable costs are an expense only when a firm produces and so they change between fixed and variable costs.

Chatty People Ltd is a manufacturer of mobile phones. The company rents two factories. Chatty People's 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

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 phones
Salary for 50 regular staff	Supplies for production
Annual interest on loan	
Rental of equipment	

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Each time Chatty People Ltd produces a new mobile phone, its variable costs will include the materials to produce the phone, plus production supplies and some way of transport. The fixed costs, however, will stay the same no matter how many phones the company produces. No sales, the firm will still have the fixed costs.

### Tip: Fixed or Variable?

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

### Focus: Total Variable Costs and Average Variable Cost

If a business is trying to calculate their *Average Variable Cost*, but only have the Total of Variable Costs, they need the Sales Volume, i.e. quantity of units produced. This would allow the business to calculate the *Average Variable Cost (AVC)*.

The calculation for this would be:

$$\text{Average Variable Cost} = \frac{\text{Total Variable Costs}}{\text{Sales Volume}}$$

Likewise, you can calculate the Total Variable Costs from the AVC by using the following formula:


$$\text{Total Variable Costs} = \text{Average Variable Cost} \times \text{Sales Volume}$$

## 2.2.2. Questions

Please write your answers on a separate piece of paper or in an exercise book.

3. Many Faces Ltd manufactures novelty masks. They are popular during Halloween and the selling price of one mask is £12.50.
  - a. In 2014–15, Many Faces Ltd sold £6,950 worth of masks. Calculate the sales revenue for Many Faces Ltd during 2014–15.
  - b. In 2013–14, Many Faces Ltd sold 13,000 masks. Calculate the sales revenue for Many Faces Ltd during 2013–14.
4. Rearrange the following into fixed costs and variable costs.

Costs for Many Faces Ltd	
Mortgage on factory	Electricity
Salary for 15 regular staff	Raw materials
Annual interest on loan	Extra staff
Overall production line costs	Rental of factory

Fixed Costs	Variable Costs
	

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## 2.2.3. Break-even



### Key Points Covered

- Contribution
- Break-even Point
- Calculating Break-even
- Margin of Safety
- Interpretation of Break-even Charts
- Limitations of Break-even Analysis

### Quantitative Skills Covered

**QS 3:** construct and interpret graphical forms

**QS 5:** calculate cost, revenue and profit

Break-even is commonly used as a way for firms to calculate how many goods they become profitable. When the *total costs* of a business's actions meet the *total revenue* from products/services, a business has *broken even*. Anything after the break-even point the business is making a profit.

### 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 sells bedside lamps to wholesalers around the UK. The company only sells one type of lamp, the Shine-On lamp, which sells for £16.00 per unit. The variable costs of making one Shine-On lamp include £2.00 for the lampshade and £3.50 for the supplies to produce it.

The calculation for contribution is:

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

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

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

### Break-even

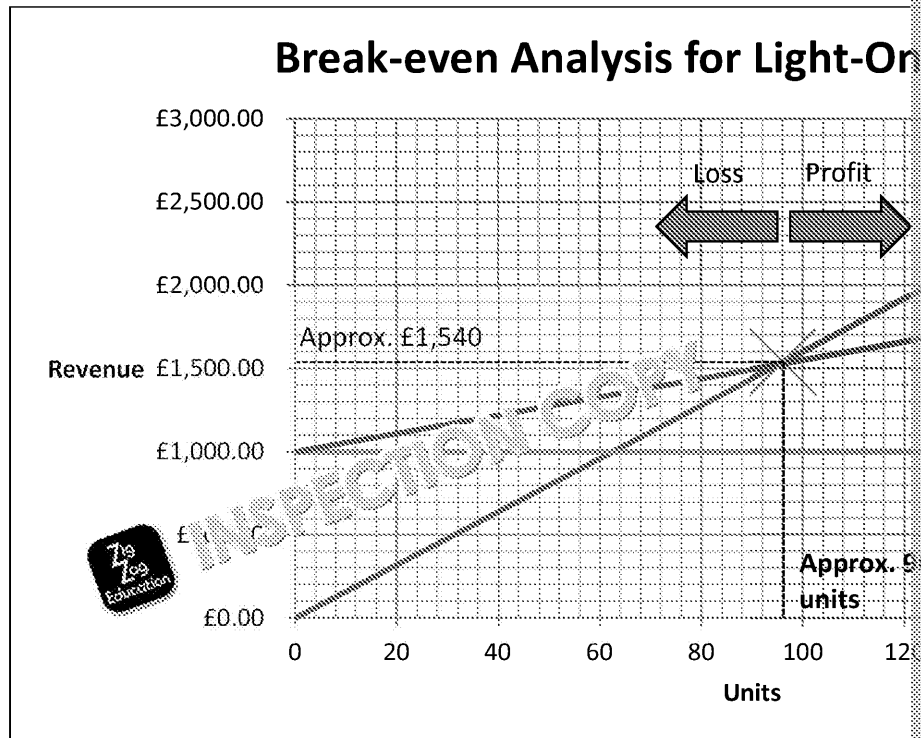
The break-even point shows where a company is neither making a profit nor a loss. It is the point where *total costs* and *total revenue* cross, i.e. where both figures are exactly the same.

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



Graph: Break-even Analysis for Light-On Ltd

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 lamps before they can start making a profit. Anything less than 96 units will be a loss, and anything more than 96 units, they will make neither a profit nor loss.

### 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 units are produced. The Variable Cost of a product is £2.50, and you make one product, that is £2.50. How many units you make, your Variable Costs will be £25.00.

### 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 businesses want to be precise, 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 example that the contribution per unit was £10.50. The graph shows Light-On Ltd's Fixed Costs as £1,000.00.

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

$$\begin{aligned} \text{Break even point for Light On Ltd} &= \frac{\text{Total Fixed Costs}}{\text{Contribution Per Unit}} \\ &= \frac{1000}{10.50} \end{aligned}$$

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

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## 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 using the equation for Total Revenue.

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

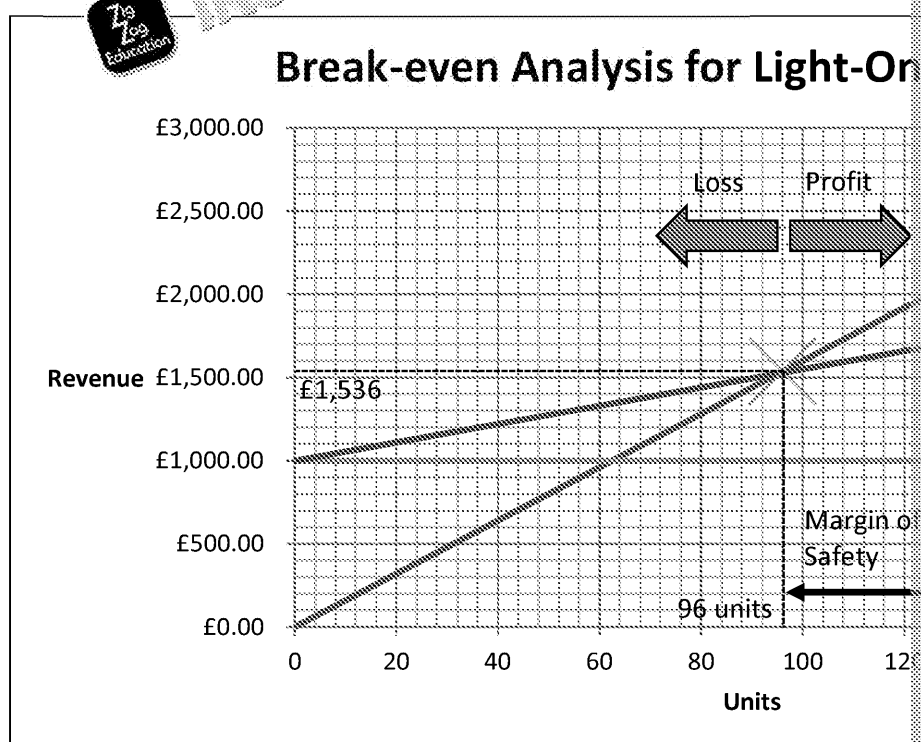
$$\text{Revenue at break even} = 96 \times 16.00$$

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

## Margin of Safety

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

Example:



Graph: Break-even Analysis with Margin of Safety for Light-On Ltd

If the break-even point for Light-On Ltd is 96 units, but the company has actually sold 128 units, calculate the margin of safety using the following equation:

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

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

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

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

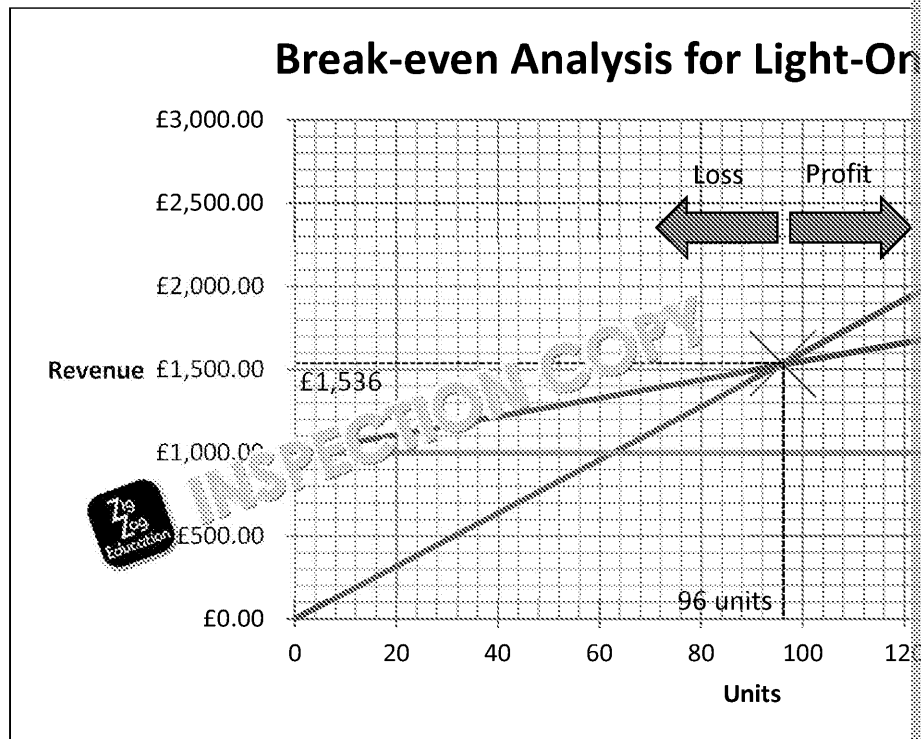
Break-even point	Actual number of sales	Margin
96	160	
96	146	
96	128	
96	101	
96	96	

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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, and Margin. Finally, you can calculate Total Variable Costs using the following equation:

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

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 because of the Total Variable Costs, and so, if you subtract the Fixed Costs from the Total Costs, you get 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. Follow this to the Fixed Cost line and you have the following:

Units: 140  
 Total Costs: £1,770.00  
 Total Revenue: £2,240.00  
 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 data easy to view and understand, which helps a business make decisions and understand the consequences of those decisions (such as introducing a product to the market). There are, however, limitations to the usefulness of break-even:

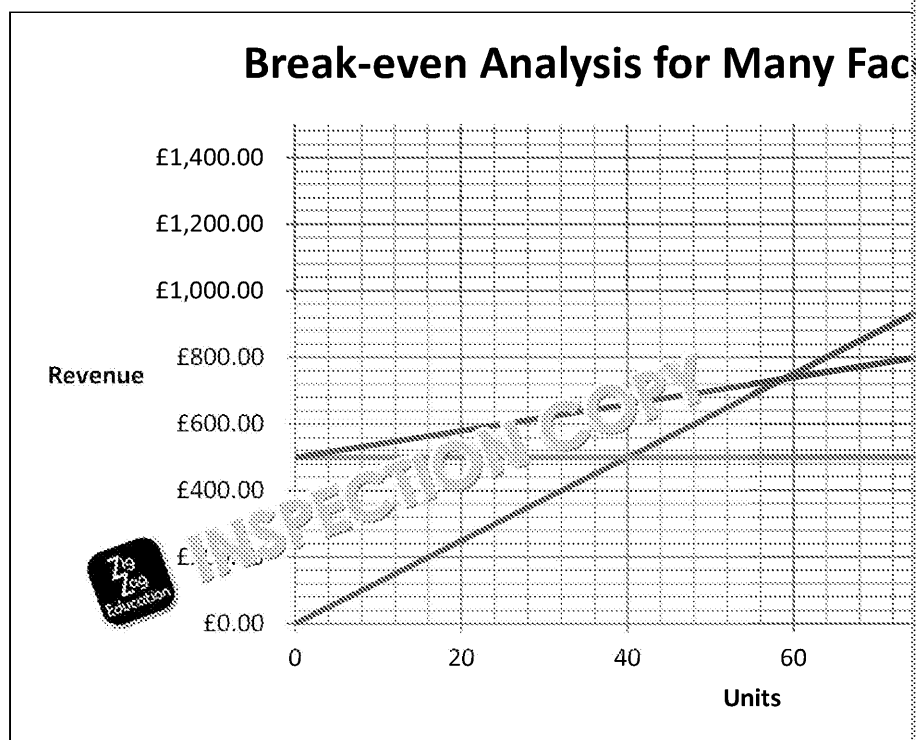
- The method only takes into account elements that the firm can control, such as price per unit and the number of goods produced. It does not consider any external factors
- It is difficult to look at more than one product at a time. Most companies have a portfolio of products/services which would, therefore, not be represented
- 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 its supplier then this would then change the graph as variable costs would not increase by the same amount
- Break-even graphs only represent a company's products/services all selling at the same price
- Just because a business produces the goods/services, it does not mean they will be sold
- Break-even graphs do not show that revenue increases as price increases. However, they do show that revenue decreases as the price gets too high



### 2.2.3. Questions

Please write your answers on a separate piece of paper or in an exercise book.

5. Many Faces Ltd manufactures novelty masks. The selling price of one mask is £12.00. Variable costs per mask add up to £4.00. Total fixed costs are £500.
- Calculate the contribution per mask.
  - Calculate the break-even point.
  - The variable costs have now changed. Study the graph below and:
    - Label each line on the graph
    - Identify the break-even point



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

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## 2.2.4. Budgets



### Key Points Covered

- Purposes of Budgets
- Types of Budget
- Variance Analysis
- Difficulties of Budgeting

### Quantitative Skills Covered

**QS 2:** calculate, use and interpret percentage changes

### Purposes of Budgets

The main purpose of any budget is to ensure that the company has complete control over its incomings and outgoings. In this way, it can make sure to earn a profit!

#### Planning

Budgets help companies prepare so that they can achieve their main aims and objectives. If, for example, a business's aim is to increase productivity by 20 per cent, it can plan out how to support this using its budget.

#### Forecasting

Businesses use cash-flow forecasts in order to predict what funds they will have available to pay which bills on which month. These forecasts allow businesses to make sure that they do not go under during periods of low sales.

#### Communications

Firms use budgets as a way to notify their employees of what targets they need to meet in order to keep management informed of business aims and what spending they need over months or year.

#### Motivation

Once employees know what is expected of them, following a budget allows comparison of employee/management performance. This helps when delivering appraisals – a common way to decide who to watch more closely and who to reward (either financially or with praise).

### Types of Budget

#### Historical Figures

This type of budget uses the figures from previous periods (i.e. months, years, etc.) to create a budget. A business that gave its marketing department £1,000, for example, would expect it to spend the same amount the following year. The figure may even increase due to inflation.

The benefits of historical figure budgeting include:

- It is efficient to implement as managers can base their budgets on those of previous years.
- Managers can plan for the future as they clearly understand how much they can spend.

#### Zero-based

This budgeting method clears all budgets every period (i.e. every year, every six months). This then means that each department must present a proposal to the company to justify its budget and to prove why.

The benefits of zero-based budgeting include:

- It stops companies from creating unnecessarily large budgets.
- Departments can only make purchases because they have proven there is a need for them.

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## Variance Analysis

Businesses use this form of analysis after a budgeting period (i.e. after six months) to compare actual spending compared with the budget they set out to meet. Analysis can be either of a department or a company's sales department is budgeted £2,500, for example, and they end up only spending £2,000, the analysis would be £500 favourable. If the department spent £3,500, however, the analysis would be £1,000 unfavourable.

### Examples of Variance Analysis:

Budget	Actual Spend	Variance
£1,000	£1,200	£200
£500	£2,000	£1,500
£2,000	£1,700	£300
£300	£480	£180
£5,000	£5,700	£700

### Percentage Change

Businesses often work in percentages – they put things into perspective when comparing the current period with the previous table's top budget as an example:

£1,000 was the budget that the department had to spend. Their actual spend was £1,200, but what would that be in percentage terms?

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

$$\text{Percentage Change for top budget} = \frac{\text{Variance}}{\text{Budget}} \times 100$$

$$\text{Percentage Change for top budget} = \frac{200}{1000} \times 100$$

$$\text{Percentage Change for top budget} = 0.2 \times 100$$

$$\text{Percentage Change for top budget} = \mathbf{20 \text{ per cent}}$$

## Difficulties of Budgeting

### Historic Budgeting

While one of the benefits of historic budgeting is that managers can quickly plan for the future, this is also where the method can fail:

- Managers can become complacent with their planning and so miss the fact that they are spending as much money as in previous years. This money could have been better used elsewhere.
- If departments keep receiving the same budget, they may feel expected to spend it. Budgets would decrease in the following years. This could lead to unnecessary higher expenses for the company.

### Zero-based Budgeting

Companies often opt for zero-based budgeting, instead of historical budgeting, so that departments can prove a genuine reason for their spending. This form also has its own difficulties:

- Zero-based budgeting takes a long time to implement, which in itself is a disadvantage.
- Budget proposals can be very short-sighted: if a business is only looking at the current year, it may miss out on budgets required to improve a department, even if it may bring more revenue in the long term.

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## The Times Are Always A-Changing

Budgets are rarely exact. In fact, they are less an exact science and more an amalgam. Some departments need less cash than others. This changes from year to year – often even within a year. Businesses should be realistic with their budgeting. If a budget is too tight, a department will overshoot it. If a budget is too generous, on the other hand, departments will either not spend it on unnecessary items just to make sure the budget is not cut next year!

As well as being realistic, businesses need to be open to the fact that circumstances may creep in that send a budget over the edge. Businesses need to understand, though, where the line is (i.e. the line that a budget must not cross). This line probably changes from budget to budget. A variance analysis that shows £150 adverse may pose a serious problem for a small business, for example, but may be completely normal for a large corporation.

### 2.2.4. Questions

Please write your answers on a separate piece of paper or in an exercise book.

7. Calculate the variance analysis of:

Budget	Actual Spend	Variance	
£4,000	£4,500		
£4,000	£3,900		
£2,500	£2,501		
£25,000	£2,500		
£3,600	£2,950		

8. Identify one benefit and one drawback of:

- Historical-figure budgeting
- Zero-based budgeting

## Focus: Budgeting

### Question:

Evaluate the validity of Herman Heyns's statement, comparing any business benefits of using budgets to the drawbacks that Heyns mentions.



### Budgets Tighten as Costs Rise

Not everyone believes in the value of budgets. Indeed, some businesses see budgets as a hindrance to creativity and innovation. If you're strapped up in the financial side of things (i.e. what things are going to cost, how much they should take, etc.), many argue that budgets do more harm than good. Herman Heyns, a professor at the School of Management, believes that budgets are 'obsolete given today's economic conditions. Budget documents that are time-consuming to prepare have little predictive value, subject to change, and are quite frankly, out of date and not worth implemented'.

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## 2.2. Keywords

<b>Sales forecast:</b>	A prediction of the sales a company will make in the future
<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>	Costs that do not change with the number of goods produced
<b>Variable costs:</b>	Costs that change according to the number of goods produced
<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 production and the revenue a company earns from selling its products
<b>Break-even:</b>	The point where total costs of producing a good/service equal the total revenue earned (i.e. where the lines on a break-even chart intersect)
<b>Historical budget:</b>	Companies create a budget based on those of previous years
<b>Zero-based budget:</b>	All departments in a company start with no budget and must justify to management what they need in order to qualify for a budget
<b>Variance analysis:</b>	A method to demonstrate how much of its budget a company has used

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## 2.2. Answers

1. Identify and explain three factors that can cause sales forecasts to be inaccurate. Students could identify and explain any three of the following:

- **Consumer Trends:** if a product suddenly falls out of favour, or ex... company's sales forecast can be significantly affected
- **Economic Variables:** an example might be that in times of econo... be looking for so many cheaply made products and so this would... manufacturers
- **Competition:** companies should stay abreast of their competition... case one firm swoops into the market with a new, highly popular...
- **External Factors:** this may include anything... from sudden outbreaks... political struggle

2. The number of sales forecast for November and December were 200,000. In reality, however, the sales only came to 140,000 for both months. Give reasons why the sales in November and December were much lower than forecast. Reasons include:

- Forecasts are less accurate when projected over long periods of time
- They are only correct to the best of a business's own knowledge

Students may also wish to identify any factors that could have affected the sales in November/December

- Competition entered the market, which turned consumers away from the company's products
- External factors significantly affected the company's supplier
- Economic variables could have changed the amount of disposable income
- Consumer trends might put the company's products/services out of fashion

3. Many Faces Ltd manufactures novelty masks. They are popular during 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 sales volume for Many Faces Ltd during 2014–15.

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

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

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

- b. In 2013–14, Many Faces Ltd sold 13,000 masks. Calculate the sales revenue for Many Faces Ltd during 2013–14.

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

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

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

4. Rearrange the following into fixed costs and variable costs.

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

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5. The variable costs of one mask add up to £4.00. Total fixed costs are £500.00.  
a. Calculate the contribution per mask.

*Contribution = Selling Price of one good - Variable Costs*

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

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

- b. Calculate the break-even point.

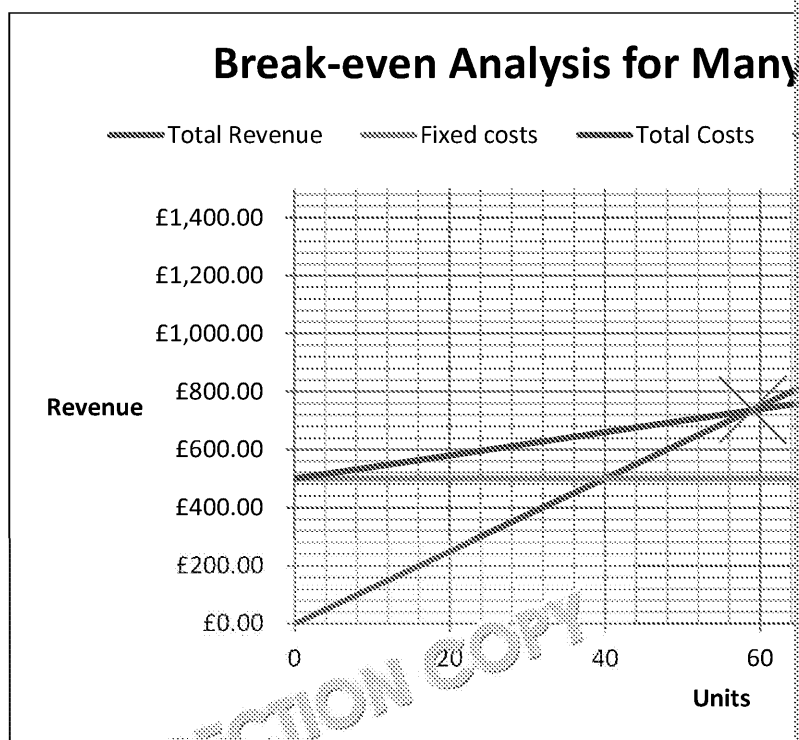
$$\text{Break even point} = \frac{\text{Total Fixed Costs}}{\text{Contribution Per Unit}}$$

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

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

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

- c. The variable costs have now changed. Study the graph below and  
i. Label each line on the graph  
ii. Identify the break-even point



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

Limitations might include:

- Break-even charts work best when analysing just one product/service. If a company has more than one product, then, would find break-even a difficult method to use.
- A company's break-even analysis assumes that all products manufactured are sold. This is rarely the case and so does not give an accurate impression of the business.
- Break-even charts do not include unforeseen costs that a company might incur. If these were included in these graphs, the break-even point would likely have been higher.
- Likewise, break-even charts only take into account those factors that are under the company's control and not consider external factors.

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## 7. Calculate the variance analysis of:

Budget	Actual Spend	Variance	Advice
£4,000	£4,500	500	
£4,000	£3,900	100	
£2,500	£2,501	1	
£25,000	£2,500	22,500	
£3,600	£2,950	650	

## 8. Identify one benefit and one drawback of:

## a. Historical-figure budgeting:

Benefits include:

- It's an efficient system since companies draw on figures from previous years
- Managers have a tight understanding of their available cash for the year

Drawbacks include:

- Companies can become complacent in their allocation of funds, when a new department requires it
- Departments that receive the same budget year after year may feel neglected

## b. Zero-based budgeting

Benefits include:

- Stops companies from creating unnecessarily large budgets
- Purchases are only made once there is a genuine, proven requirement

Drawbacks include:

- This system is time-consuming, which is a cost to the business
- Companies can become too budget-focused, losing sight of the fact that the business is ever to improve (and, therefore, bring more revenue)

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## 2.3. Managing Finance

### 2.3.1. Profit



#### Key Points Covered

- Calculating Gross, Operating and Net Profit
- Statement of Comprehensive Income
- Comparing Profitability
- Increasing Profitability and the Difference between Cash and Profit

#### Quantitative Skills Covered

**QS 1:** calculate, use and

**QS 2:** calculate, use and

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

#### Calculating Profits

##### 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 of the raw materials needed to produce a good/service.

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

#### Let's use an example:

Sparkling Crystal Ltd is a company that produces glasses for fine-dining restaurants. Its COS includes raw materials for manufacturing the glasses, supplies needed for the production line and labour of company staff working on each glass.

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

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

$$\text{Gross Profit} = 14,000 - 6,000$$

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

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

#### Cost of Sales for All

If a company is a retailer (such as a clothing shop), instead of a manufacturer or service provider, their COS is calculated by using the amount of stock they started with (e.g. at the beginning of the year) and the amount of stock 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 hopefully be sold next financial period.

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## Operating Profit

More than a statement of how much value a business adds to their raw materials, the profit left over after other operating costs (also known as fixed costs) have also been deducted. These costs are the costs to the business of their 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 an idea of how much profit the business has really made. A firm might make £20,000 in 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.

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

This is the final profit figure before any tax or dividends are paid. Investors prefer to look at net profit over 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 2019*

	Expenses
<b>Sales Revenue (a.k.a. Turnover)</b>	
Raw materials	£2,000
Production supplies	£1,000
Labour costs	£3,000
<b>Cost of Sales</b>	<b>£6,000</b>
<b>GROSS PROFIT</b>	
Business expenses	£1,900
Administrative expenses	£1,100
<b>Other Operating Expenses</b>	<b>£3,000</b>
<b>OPERATING PROFIT</b>	
Interest Paid	£965
<b>NET PROFIT</b>	

The profit and loss account shows that Sparkling Crystal Ltd made £14,000 in sales revenue in 2019.

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

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## Profitability

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

These ratios (*gross profit margin*, *operating profit margin* and *net profit margin*) help as they give a more informed idea of how much profit the firm can expect depending on the products 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 (rounded up) 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 (rounded up) 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>		£14,000	
<b>Cost of Sales</b>	£6,000		£5,000
<b>GROSS PROFIT</b>		£8,000	
<b>OPERATING PROFIT</b>		£5,000	
<b>NET PROFIT</b>		£4,035	

The previous slide shows basic profit and loss accounts for Sparkling Crystal Ltd for 2014–15. The net profit (bottom line) is much lower in 2013–14 due to the number of bottles to generate.

The profit margins for 2013–14 are calculated as:

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

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

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

### Fraction Talk

Sometimes in business you might hear people talk in fractions instead of percentages. For example, a 50 per cent profit margin as an example:

If £5,000 of Sparkling Crystal Ltd's revenue is *gross profit*, and the firm's revenue equals £10,000, then 50 per cent of Sparkling Crystal Ltd's revenue is gross profit.

Another way to say the same thing would be that *half of Sparkling Crystal Ltd's revenue* is gross profit.

**Make sure** you practise your understanding of fractions before exam day.

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

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

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

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

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

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

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Comparing these three figures with the three before, not only did Sparkling Crystal 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 competitors – that is if other companies publish their profit and loss accounts for a given year. They can then use statistics for their market as a benchmark for how profitable they should be compared to their competition.

### 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 smallest trader all the way up to the multinational corporation. Companies, therefore, need to monitor their profitability.

Examples of ways to achieve this include:

- Decrease cost of goods sold by reducing the amount of raw materials needed for production
- 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 prime, long-term objective for all companies. It is the overall success of a firm while cash, on the other hand, tells us how efficient a company is.

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

Let's use Sparkling Crystal Ltd as an example:

#### Profit and Loss Account for Sparkling Crystal Ltd during 2014–15

	Expenses
<b>Sales Revenue (a.k.a. Turnover)</b>	
<b>Cost of Sales</b>	£6,000
<b>GROSS PROFIT</b>	
<b>OPERATING PROFIT</b>	
<b>NET PROFIT</b>	

The company had a net profit of £4,035. However, let's take a look at their incomings and outgoings to see how they manage their cash flow.

#### Incomings and Outgoings for Sparkling Crystal Ltd 2014–15

<b>Cash received (Incoming)</b>
<b>Cash paid (Outgoing)</b>
<b>Net Cash Flow</b>

Sparkling Crystal Ltd's net cash flow is positive, but it is much lower than their net profit. This is a common situation for many companies, and most firms, do business.

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Certain customers, for example, will have longer payment plans than others (especially in bulk!). Some suppliers will also demand Sparkling Crystal Ltd to pay quickly (i.e. they might give the company a couple of months). All of these inflows and outflows affect cash has available in order to pay its short-term debts.

Remember: profit is the goal in the long term, but a company must have cash free to pay its actions. When it comes to the actual running of a business, profit is important, but

### Remember Me:

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

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

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

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



### 2.3.1. Questions

Please write your answers on a separate piece of paper or in an exercise book.

1. Sweet Things Ltd is a baker of cakes, tarts and biscuits. The company spent £54,000 on production supplies for the year 2014–15, while sales revenue came to £135,000.
  - a. Calculate the company's gross profit for 2014–15.
  - b. Complete the following profit and loss account for Sweet Things Ltd.

**Profit and Loss Account for Sweet Things Ltd in 2014–15**

	Expenses
<b>Sales Revenue (a.k.a. Turnover)</b>	
Ingredients	£13,000
Production supplies	£6,000
Labour costs	£35,000
<b>Cost of Sales</b>	
<b>GROSS PROFIT</b>	
Business expenses	£8,000
Administrative expenses	£5,000
<b>Total Other Operating Expenses</b>	£13,000
<b>OPERATING PROFIT</b>	
Interest Paid	£2,650
<b>NET PROFIT</b>	

2. The table below shows the incomings and outgoings for Sweet Things Ltd.
  - a. Calculate the net cash flow of 2014–15.

**Incomings and Outgoings for Sweet Things Ltd 2014–15**

	£
<b>Cash received (Incoming)</b>	135,000
<b>Cash paid (Outgoing)</b>	54,100
<b>Net Cash Flow</b>	

- b. Identify two reasons why a company's net cash flow can differ from its net profit.

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## 2.3.2. Liquidity



### Key Points Covered

- Statement of Financial Position
- Calculating Liquidity
- Improving Liquidity
- The Working Capital Cycle

### Quantitative Skills Covered

**QS 1:** calculate, use and

While profitability shows the level of success a business can expect in the long term, liquidity shows the likelihood that they will be able to pay back their short-term liabilities. Firms that have more cash available for their day-to-day expenses than they need have higher liquidity.

We can find the liquidity of a business by looking at their balance sheet.

### Statement of Financial Position

This statement, also known as a *balance sheet*, shows the financial status of a business at a specific point in time. It shows what they own (their *assets*) and what they owe (their *liabilities*).

Where Eagles Dare Ltd is a company that manufactures parachutes for skydivers. The company's activities include designing parachutes, purchasing raw materials to produce them, managing their factories, transporting goods and promoting their products.

The following shows a statement of financial position for Where Eagles Dare Ltd.

#### Statement of Financial Position for Where Eagles Dare Ltd

	2014–15 (£000s)	2013–14 (£000s)
<b>FIXED ASSETS</b>		
Factory	100	100
Office	65	65
Machinery	30	30
<b>TOTAL FIXED ASSETS</b>	<b>195</b>	<b>195</b>
<b>CURRENT ASSETS</b>		
Cash	40	20
Stock	20	60
Debtors	10	15
<b>TOTAL CURRENT ASSETS</b>	<b>70</b>	<b>95</b>
<b>CURRENT LIABILITIES</b>		
Overdraft	(5)	(7)
Creditors	(30)	(25)
<b>TOTAL CURRENT LIABILITIES</b>	<b>(35)</b>	<b>(32)</b>
<b>NET CURRENT ASSETS</b>	<b>35</b>	<b>63</b>
<b>LONG-TERM LIABILITIES (LTL)</b>		
Bank loan	(75)	(95)
Property lease	(20)	(20)
<b>TOTAL LTL</b>	<b>(95)</b>	<b>(115)</b>
<b>NET ASSETS</b>	<b>135</b>	<b>143</b>
<b>EQUITY</b>		
Owner investment	60	60
Retained profits	75	83
<b>TOTAL EQUITY</b>	<b>135</b>	<b>143</b>

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The statement of financial position shows the balance between a firm's assets and liabilities. The items that make up a financial position include:

- **Fixed Assets:** things such as property and equipment that are owned by the business.
- **Current Assets:** these are assets that a business owns for up to a year, such as cash and stock. They are easier and quicker to convert into cash than fixed assets.
- **Current Liabilities:** debts that a company has and that will be paid within the year.
- **Long-term Liabilities:** debts that a company has and that will be paid in more than a year.
- **Net Current Assets:** also known as *Working Capital*, this is the finance available for day-to-day processes. It is calculated with the equation: Current Assets – Current Liabilities.
- **Net Assets:** this is what is left once all liabilities have been subtracted from all assets. It is calculated with the equation: Fixed Assets + Net Current Assets – Long-term Liabilities.

## Calculating Liquidity

Businesses calculate their liquidity using ratios.

### Current Ratio

This first ratio compares current assets and current liabilities to show what cash a business has available to pay its short-term debts.

Let's use Where Eagles Dare Ltd as an example:

$$\text{Current Ratio for 2014-15} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Current Ratio for 2014-15} = \frac{70}{35}$$

$$\text{Current Ratio for 2014-15} = 2$$

The current ratio is 2:1, which tells us that Where Eagles Dare Ltd have £2.00 in assets for every £1.00 of liabilities. They have plenty of finance available to pay their short-term debts.

As a general rule, companies aim for between 1.5:1 and 2:1 as an optimal ratio. A ratio below 1.5:1 is detrimental to a business since they will not be able to pay off their short-term debts. A ratio above 2:1 may mean that the company has too much cash wrapped up in assets that are not generating a profit to make a profit in the long run.

### Acid Test Ratio

Businesses have to accept that some of their assets may not sell. The acid test ratio takes this into account by removing a company's inventory from their current assets. It only considers the most liquid of assets, i.e. the ones that are most likely (and are quickest) to convert into cash.

Let's use Where Eagles Dare Ltd as an example again:

$$\text{Acid Test Ratio for 2014-15} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

$$\text{Acid Test Ratio for 2014-15} = \frac{70 - 20}{35}$$

$$\text{Acid Test Ratio for 2014-15} = 1.43 \text{ (rounded up to 2 decimal places)}$$

The acid test ratio is 1.43:1, which tells us that Where Eagles Dare Ltd has £1.43 in assets for every £1.00 of liabilities. Just like with the current ratio, the company has plenty of finance available to pay their short-term debts.

The optimal figure for a company's acid test ratio falls between 0.75 and 1.00. Much below 0.75 shows that the business will have problems affording to pay off its short-term debts and could lead to serious financial troubles. If the acid test ratio is significantly high, a business may have too many current assets that could be better spent on fixed assets (such as new factory equipment). While current assets may not help in the short term, but could create a lot of profit in the long run. For example, a new factory, it will be able to produce more goods, make more sales and, as a result, increase its profit.

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## Improving Liquidity

If a business has a considerably low current or acid test ratio, it can improve this in several ways:

- Sell off fewer current assets
- Hold back more cash, rather than investing in fixed assets
- Consider leasing some of its property, especially if it is not using it to full capacity
- The business could even sell off a fixed asset and then rent it back in order to improve its current ratio

If a business's current or acid test ratio is high, it can address this in several ways, in order to improve its liquidity:

- Sell off more current assets, which are holding valuable cash for the company
- Use the available cash to invest in property or equipment, which could lead to higher sales in the future
- Change payback period with debtors so that the firm receives more quickly and can then invest this cash into its fixed assets.

## The Working Capital Cycle

We now understand that working capital is important, cash is king. The main reason for this is that if a business has a negative working capital, it is in a very difficult position. So companies must have a firm understanding of their working capital cycle.

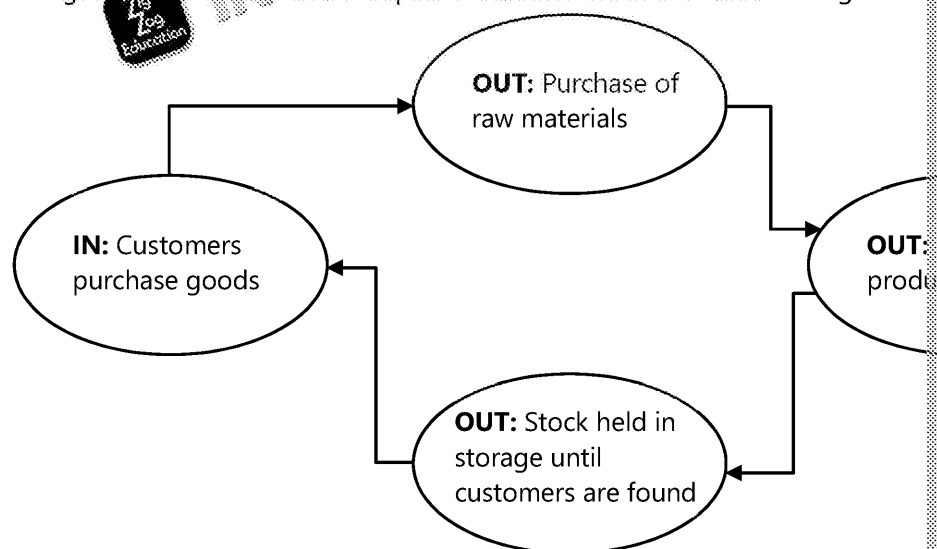


Diagram: The Working Capital Cycle

Each inflow and outflow of cash has its own time period. The time period for paying for raw materials, for instance, may be much shorter than the pay period the firm gives its customers.

*Length of Working Capital Cycle = Time Goods Held + Time for Receivables Paid*

Let's look at the working capital cycle for Where Eagles Dare Ltd:

The company holds on to goods for 60 days. It gives its customers 30 days to pay for goods. The company's suppliers expect to be paid in 21 days after any order.

Using these figures, we can calculate the working capital cycle for Where Eagles Dare Ltd:

*Length of Working Capital Cycle = Time Goods Held + Time for Receivables Paid - Time for Payables*

$$\text{Length of Working Capital Cycle} = 60 + 30 - 21$$

$$\text{Length of Working Capital Cycle} = 69 \text{ days}$$

This result shows that it takes Where Eagles Dare Ltd up to 69 days before it can turn its debtors (customers that owe money) into cash. Businesses all have different working capital cycles. For example, a supermarket, which would buy in fresh fruit and vegetables and sell them soon after stock, would have a very short working capital cycle. A manufacturer, on the other hand, may have a very long working capital cycle. It is important for a business to keep track of how their working capital cycles change over time. If the cycle becomes too long, the business could lose out since then it will not have enough cash available when the

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### Remember Me:

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

$$\text{Current Ratio for 2014-15} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Acid Test Ratio for 2014-15} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

### 2.3.2. Questions

Please write your answers on a separate piece of paper or in your exercise book.

3. Sweet Things Ltd holds on to its products for five days. The firm gives its customers for their purchases while the company's suppliers (who provide the ingredients) pay for any order.

- Calculate the operating capital cycle for Sweet Things Ltd.
- Explain what the answer to 3.a. means.

4. In this section, we talked mostly about profit and loss for Eagles Dare Ltd during

#### Statement of Financial Position for Where Eagles Dare Ltd

	2014-15 (£000s)
<b>FIXED ASSETS</b>	
Factory	100
Office	65
Machinery	30
<b>TOTAL FIXED ASSETS</b>	<b>195</b>
<b>CURRENT ASSETS</b>	
Cash	40
Stock	20
Debtors	10
<b>TOTAL CURRENT ASSETS</b>	<b>70</b>
<b>CURRENT LIABILITIES</b>	
Overdraft	(5)
Creditors	(30)
<b>TOTAL CURRENT LIABILITIES</b>	<b>(35)</b>
<b>NET CURRENT ASSETS</b>	<b>35</b>
<b>LONG-TERM LIABILITIES (LTL)</b>	
Bank loan	(75)
Property lease	(20)
<b>TOTAL LTL</b>	<b>(95)</b>
<b>NET ASSETS</b>	<b>135</b>
<b>EQUITY</b>	
Owner investment	60
Retained profits	75
<b>TOTAL EQUITY</b>	<b>135</b>

- Calculate the current ratio for Where Eagles Dare Ltd during 2013-14.
- Calculate the acid test ratio for Where Eagles Dare Ltd during 2013-14.
- Explain the main difference between current ratio and acid test ratio.

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### 2.3.3. Business Failure



#### Key Points Covered

- Internal and External Causes of Business Failure
- Financial and Non-financial

The main culprit for why businesses fail is poor cash flow management. Without this, businesses can become unpaid bills and eventually bad debts. There are many other factors, however, that lead to failure, however, which split into internal and external.

#### Internal Causes of Business Failure

##### Financial

- **Efficiency:** businesses must convert their working capital. This ensures that assets can be converted to cash so that they can pay their day-to-day expenses.
- **Planning:** profit is not a short-term objective, is integral for a business. Businesses must plan their cash flow carefully so that it does not fall into a deficit. Businesses should invest in their own futures so that profit is gained.

##### Non-financial

- **Communication:** (employer-to-employee, employee-to-employer, etc.) is an integral part of running a business. If everyone is not clear on a business's objectives, failure is far more likely as a result.
- **Efficiency:** businesses that use their raw materials in the most cost-effective manner possible benefit from having low cost of sales and, therefore, higher profits. Businesses that waste their raw materials, on the other hand, can suffer from producing expensive products that no one can afford (or want to) buy.
- **Marketing:** firms need to promote their goods to as many customers as possible – and to the right people! If done incorrectly, a business could suffer by trying (and failing) to sell to the wrong people.
- **Innovation:** businesses that fail to stay up to date with their markets (i.e. what consumers want and what they need) will find it difficult. A business will introduce a better product/service and any firms left behind will fail.

#### External Causes of Business Failure

##### Financial

- **Economic recession:** a business must have a game plan for unforeseen financial crisis. Any business that relied on the workings were before the recession (e.g. borrowing, high spending, etc.) would have suffered greatly once the economy collapsed.
- **Currency strength:** many businesses purchase their raw materials from economically developed countries. This can make supplies relatively cheap. If a country improves its currency, the business may have to pay more for its raw materials, increasing the cost of sales and, most likely, the price they charge for their products.

##### Non-financial

- **National crises:** disasters and states of emergency (e.g. war, disease, earthquake) can have catastrophic consequences for those affected. They can also significantly increase the cost of raw materials to purchase supplies from the affected area. If a business does not have a game plan, they might lose all raw materials to make their goods/services. This would lead to no production, fewer sales, less profit and, ultimately, business failure.
- **Less export demand:** businesses value their key contracts because these provide a steady stream of goods. However, firms that rely mostly on consumers from overseas for their products/services could suffer in the long run.

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A UK-based business that sells mostly to Turkey, for instance, could make a lot of money as a popular producer for the country. However, if the Turkish government decided to restrict imports within their own local economy, in order to keep the money in Turkey, the business would lose its main customers.

### Business Burns Out

Some businesses will fail due to a number of different influences. A firm that loses its consumer base because of a drop in export demand, for instance, may also have been ignoring what the market wanted/needed.

#### Example:

Wax Stubs Inc. are a manufacturer of candles. The company is based in the USA and sell mostly to consumers in Spain. On the 2008 financial crisis hit, Spain's government promoted that people should spend their money on Spanish companies in order to keep the money in the country. Wax Stubs Inc. lost a majority of their business from this as Spain was their biggest consumer. Nevertheless, Spanish consumers had been turning away from Wax Stubs Inc. by this point anyway because their candles were so expensive and produced with unethical raw materials. Wax Stubs Inc., therefore, could not blame only the 2008 financial crisis for their failure as they had not been listening to their market.

### 2.3.3. Questions

Please write your answers on a separate piece of paper or in an exercise book.

5. Copy out and fill in the following table, using the phrases below. The first one has

Currency strength      Planning      Communication  
Economic recession      Efficiency      Marketing

Internal Causes of Business Failure	External Causes of Business Failure
	Currency strength

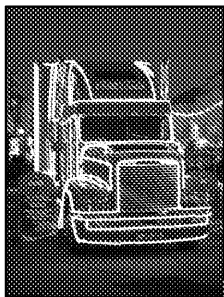
6. Identify and explain causes of business failure that may come from a business ignoring the following:

- Working capital
- Economic stability
- Marketing

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## Focus: Coca-Cola



### The Coca-Cola Company

The following table shows the profit for The Coca-Cola Company at year end 2014 and 2012. All figures are in millions.

Profit and Loss Account for The Coca-Cola Company				
	2014		2012	
	Expenses	Income	Expenses	Income
<b>Sales Revenue</b>		8,264		8,062
Cost of Sales	5,291		5,162	
<b>GROSS PROFIT</b>				
Administrative expenses	1,668		1,671	
Other operating expenses	286		301	
<b>OPERATING PROFIT</b>				
Interest Paid	126		91	
<b>NET PROFIT</b>				

### Questions:

- Calculate the following three figures for 2014, 2012 and 2010:
  - Gross profit
  - Operating profit
  - Net profit
- Calculate the following three figures for 2014, 2012 and 2010:
  - Gross profit margin
  - Operating profit margin
  - Net profit margin
- Using the data from your calculations, analyse whether The Coca-Cola Company is increasing or decreasing and suggest how the company could improve its performance.

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## 2.3. Keywords

<b>Gross profit:</b>	The difference between revenue and cost of sales
<b>Operating profit:</b>	The difference between gross profit and other operating profits
<b>Net profit:</b>	The profit left after deducting COS and all operating expenses
<b>Profitability:</b>	How profitable a business is, comparing gross, operating and net profit to sales revenue
<b>Cash:</b>	Money available for payment of day-to-day activities
<b>Profit:</b>	Money that is left after all expenses and dividends
<b>Fixed assets:</b>	Things such as property and equipment that are owned by a business
<b>Current assets:</b>	Assets that a business owns for up to a year, such as stock. These assets are easier and quicker to convert into cash
<b>Current liabilities:</b>	Debts that a company has and that will be paid within a year
<b>Long-term liabilities:</b>	Debts that a company has and that will be paid in more than a year
<b>Net current assets:</b>	Also known as <i>Working Capital</i> , this is the finance available for a business's day-to-day processes. It is calculated with the equation: $\text{Net Current Assets} = \text{Current Assets} - \text{Current Liabilities}$
<b>Net assets:</b>	This is what is left once all liabilities have been subtracted from total assets. The calculation for this is $\text{Fixed Assets} + \text{Net Current Assets}$
<b>Liquidity:</b>	The ability that a business has (through its assets) to pay its debts

## 2.3. Answers

1. Sweet Things Ltd is a baker of cakes, tarts and biscuits. The company's revenue for the year 2014–15 was £135,000, while its cost of sales was £54,000.
  - a. Calculate the company's gross profit for 2014–15.

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

$$\text{Gross Profit} = 135,000 - 54,000$$

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

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- b. Complete the following profit and loss account for Sweet Things

**Profit and Loss Account for Sweet Things Ltd in 2014–15**

	Expenses	Income
<b>Sales Revenue (a.k.a. Turnover)</b>		<b>£135,000</b>
Ingredients	£13,000	
Production supplies	£6,000	
Labour costs	£35,000	
<b>Cost of Sales</b>	<b>£54,000</b>	
<b>GROSS PROFIT</b>		<b>£81,000</b>
Business expenses	£3,000	
Administrative expenses	£5,000	
<b>Total Other Operating Expenses</b>	<b>£13,000</b>	
<b>OPERATING PROFIT</b>		<b>£68,000</b>
Interest paid	£2,650	
<b>NET PROFIT</b>		<b>£65,350</b>

2. The table below shows the incomings and outgoings for Sweet Things Ltd.
- a. Calculate the net cash flow of 2014–15.

**Incomings and Outgoings for Sweet Things Ltd 2014–15**

	£
<b>Cash received (Incoming)</b>	<b>135,000</b>
<b>Cash paid (Outgoing)</b>	<b>54,100</b>
<b>Net Cash Flow</b>	<b>£80,900</b>

- b. Identify two reasons why a company's net cash flow can differ from its net profit.
- Answers may include (but not limited to) debtors paying in the next tax year, interest on loans, share issue and government grants.
3. Sweet Things Ltd holds onto its products for five days. The firm gives its customers (supermarkets) 30 days to pay for their purchases while the company's suppliers (the ingredients) expect to be paid in 15 days after any order.
- a. Calculate the working capital cycle for Sweet Things Ltd.

*Length of Working Capital Cycle*

*= Time Goods Held in Stock + Time Receivables Paid – Trade Credit Period*

*Length of Working Capital Cycle = 5 + 30 – 15*

*Length of Working Capital Cycle = 20*

- b. Explain what the answer to 3.a. means.

This explains that it takes Sweet Things Ltd 20 days to convert its raw materials into cash.

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4. In this section, we talked mostly about profit and loss for Eagles Dare during 2013–14.

Statement of Financial Position for Where Eagles Dare Ltd

	2014–15 (£000s)	2013–14
<b>FIXED ASSETS</b>		
Factory	100	100
Office	65	65
Machinery	30	30
<b>TOTAL FIXED ASSETS</b>	<b>195</b>	<b>195</b>
<b>CURRENT ASSETS</b>		
Cash	20	20
Stock	20	60
Debtors	10	15
<b>TOTAL CURRENT ASSETS</b>	<b>70</b>	<b>95</b>
<b>CURRENT LIABILITIES</b>		
Overdraft	(5)	(7)
Creditors	(30)	(25)
<b>TOTAL CURRENT LIABILITIES</b>	<b>(35)</b>	<b>(32)</b>
<b>NET CURRENT ASSETS</b>	<b>35</b>	<b>63</b>
<b>LONG-TERM LIABILITIES (LTL)</b>		
Bank loan	(75)	(95)
Property lease	(20)	(20)
<b>TOTAL LTL</b>	<b>(95)</b>	<b>(115)</b>
<b>NET ASSETS</b>	<b>135</b>	<b>148</b>
<b>EQUITY</b>		
Owner investment	60	60
Retained profits	75	83
<b>TOTAL EQUITY</b>	<b>135</b>	<b>143</b>

- a. Calculate the current ratio for Where Eagles Dare Ltd during 2013–14.

$$\text{Current Ratio for 2013–14} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Current Ratio for 2013–14} = \frac{95}{32}$$

$$\text{Current Ratio for 2013–14} = 2.97 \text{ (rounded to 2 decimal places)}$$

- b. Calculate the acid test ratio for Where Eagles Dare Ltd during 2013–14.

$$\text{Acid Test Ratio for 2013–14} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

$$\text{Acid Test Ratio for 2013–14} = \frac{95 - 60}{32}$$

$$\text{Acid Test Ratio for 2013–14} = \frac{35}{32}$$

$$\text{Acid Test Ratio for 2013–14} = 1.09 \text{ (rounded to 2 decimal places)}$$

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- c. **Explain the main difference between current ratio and acid test ratio.**  
*Students should show understanding that acid test ratio takes into account assets that are not easily (and quickly) converted into cash. Due to this, inventory (i.e. stock) is not included.*

5. **Copy out and fill in the following table, using the phrases below. The table is for you.**

Currency strength      Planning      Communication      National crisis  
 Economic recession      Efficiency      Marketing

Internal Causes of Business Failure	External Causes of Business Failure
Planning Communication Innovation Efficiency Marketing	Currency strength National crisis Economic recession Export demand

6. **Identify and explain one effect that may come from a business ignoring one of the following.**

- a. **Working capital.** Possible effects may include:
- The business might run low on cash/assets with which to pay
  - There may be too much cash which should have been invested elsewhere, therefore, overall profits
- b. **Economic stability.** Possible effects may include:
- Loss of customers as disposable income decreases
  - If the business sells low-value goods, there may be a sudden drop in sales if not prepared, i.e. loss of potential earnings
- c. **Marketing.** Possible effects may include:
- Fewer people learn about the business/brand. These people
  - Business has more cash available to invest in other areas

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## 2.4. Resource Management

### 2.4.1. Production, Productivity and Efficiency



#### Key Points Covered

- Job, Batch, Flow and Cell Production
- Efficiency
- Productivity

#### Methods of Production

A business must choose the right method of production to fulfil demand for its goods. The methods that businesses choose depend on many factors, including the size/type of the market, the business's aims and growth objectives.

##### Job

This method of production is the one of choice for small businesses and sole traders producing a single product at a time, such as an artist working on a piece of pottery.

##### Batch

Bakeries are the classic example of this production method. A bakery will focus on producing one type of bread, baking as many loaves as it can, before switching production to another and baking enough to meet demand. The method normally requires specific equipment (such as a baker's oven) but every good is produced in the same way. This is a much more efficient method than job production because manufacturers can produce many goods at a time. It is flexible, too, as the business can produce goods to order as demand increases and decreases.

##### Flow

This method of production is used by car manufacturers, and other such businesses, on a significantly large scale. Businesses manufacture their goods in a conveyor-belt style using specific equipment. Once in motion, however, this method of production is extremely cost-effective. It is a good method when they have a piece of equipment to dedicate to the manufacture of one product, such as focusing one factory on the production of their Fiesta cars.

##### Cell

Large manufacturing firms, such as producers of electronic goods, use this method as a way to efficiently divide production. Employees are split into teams, with each team working in the same way but focusing on a different product. This method increases the responsibility that employees have as opposed to flow production, where everyone has one or two tasks, working in more of a conveyor-belt style. Cell production works especially well for extremely large companies, who have so many employees that their duties cannot be carried out without being divided.

#### Productivity

Production and productivity differ in a similar way to distance and speed, e.g. distance shows how far you went while speed shows how quickly they were able to do it. Production measures the output a firm produces in a specific amount of time, while productivity gives the value added per each input.

Outputs can include the amount of productivity per person, per factory or per machine. Managers can monitor their employees on how many sales they make. This productivity is measured as sales per salesperson.

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**Let's use an example:**

A textile worker might be able to produce seven pairs of gloves in one hour, and so their productivity would be seven gloves per hour. A machine producing the same gloves may be able to do this more quickly, increasing the productivity to, say, 35 pairs of gloves per hour.

This example shows that machinery is able to achieve higher levels of productivity than a human workforce. However, it is good to note that not all machinery can perform tasks to the high-quality levels of human workers. Many consumers also value handmade goods over their machined counterparts and will pay more for the quality.

**Factors that Influence Productivity**

Businesses use all sorts of methods in order to increase their productivity, including:

- Increasing the number of hours that employees work
- Making changes to day-to-day business processes
- Motivating the workforce
- Purchasing new equipment, technology and premises
- Increasing the amount of training that employees receive

There are downsides to these methods, however, which can lead to pushback from:

- Employees very rarely choose to work longer hours
- While a firm may offer new training or change business procedures, their staff may not want to learn
- If a labour force is expected to increase its productivity, it may want to be paid more
- Whenever a firm announces changes that affect productivity, some members of the workforce may see this as a threat to their jobs

**Productivity and Competitiveness**

Both of these terms are closely linked with the success of a business. Firms looking to increase their competitiveness within a market (e.g. gain more market share) will explore product and process changes to achieve this.

The operations department is normally the business area responsible for increasing productivity. Any changes that operations lead must be in line with the aims and objectives of the business. To become more competitive, for instance, operations will need to support this by increasing productivity.

Firms concentrate on productivity as a method of becoming more competitive for several reasons:

- Firms that cannot produce enough to fulfil market demand will lose out to their competitors. To survive, a business must, therefore, increase productivity in order to meet demand and reduce its costs.
- Markets that have particularly price-elastic demand are very competitive and firms need to reduce their costs enough (e.g. by increasing productivity) so that they can offer lower prices.
- If a firm's main objective is to decrease its costs by 15 per cent, it can achieve this by increasing productivity. The more goods a firm can produce, the lower its overall costs.
- Service-focused firms often concentrate on productivity as a way to provide better service. The more goods and services a business has available at any time, the more likely it is to meet customer demand and, hopefully, encourage further sales in future.

**Efficiency**

This refers to the maximum output a business can achieve through a minimum number of inputs. Efficiency involves everything from a business's workforce to its procedures, scale, location, equipment and machinery).

Efficiency can be improved either by a firm increasing the number of outputs it produces or by producing its outputs using fewer inputs.

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## Let's show that visually:

Efficiency method 1:



Efficiency method 2:



### Labour-intensive or Capital-intensive production?

Businesses make the decision whether to focus on labour- or capital-intensive skills and efficiencies with each factor of production. Is the business's labour or machinery? Can it produce more at a lower cost if it invested in more equipment, size and position within the marketplace and the kind of service consumers need, etc.

When a firm understands which route is best for it, it can explore the different options more efficient. These include:

- **Productivity of labour:** encouraging the workforce to increase their productivity, targets, motivation and/or better matching people's skills to tasks
- **Nature of processes:** businesses must use the correct method of production. A manufacturer might use flow production since it needs to produce many goods of a standard
- **Capital utilisation:** the fixed costs of a business stay the same regardless of output, so a business must utilise these (i.e. equipment, machinery) to their maximum. As goods/services will become more expensive to produce.
- **Scale:** businesses all look for profit and so they also look to grow. This can be achieved by purchasing, which help a business lower costs overall. However, if a business suffers from diseconomies of scale, such as poor communication through too many layers, it can hinder growth.
- **Innovation:** firms are always looking for cost savers, ways to either produce more efficiently or deliver them more cheaply. Retailers that move online, for instance, are no longer needing a shop window.
- **Lean production:** businesses invest in methods to reduce waste not only to save money but as a way to save money. Less waste (as well as fewer repeat processes) helps to improve efficiency.

### 2.4.1. Questions

Please write your answers on a separate piece of paper or in an exercise book.

1. Complete the following sentences using the phrases flow, job, batch and cell.

Car manufacturers such as Toyota, are well-known examples of \_\_\_\_\_ production. They focus their machinery on the creation of the same product over and over again. \_\_\_\_\_ on the other hand, uses \_\_\_\_\_ production because each product is different. A bakery is the classic example of \_\_\_\_\_ production. Paint manufacturers use \_\_\_\_\_ Technology firms like to use \_\_\_\_\_ production because it allows them to focus on one specific task(s).

2. Identify and explain two ways in which a firm can increase its efficiency.

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## 2.4.2. Capacity Utilisation



### Key Points Covered

- Capacity Utilisation
- Over- and Under-utilisation of Capacity
- Improving Capacity Utilisation

### Quantitative Skills Covered

QS 2: calculate, use and

Firms calculate capacity utilisation to show their actual output and how it compares to the output they could produce.

The equation for this is:

$$\text{Capacity Utilisation} = \frac{\text{Current Output}}{\text{Maximum Possible Output}} \times 100$$

Let's use an example. Plastic People is a company that manufactures mannequins for fashion retailers. It has three factories where it is able to produce a maximum of 50,000 mannequins per month. However, it has only managed to produce 37,000 mannequins each month.

$$\text{Capacity Utilisation for Plastic People Ltd} = \frac{\text{Current Output}}{\text{Maximum Possible Output}} \times 100$$

$$\text{Capacity Utilisation for Plastic People Ltd} = \frac{37,000}{50,000} \times 100$$

$$\text{Capacity Utilisation for Plastic People Ltd} = 0.74 \times 100$$

$$\text{Capacity Utilisation for Plastic People Ltd} = 74 \text{ per cent}$$

This calculation shows that Plastic People Ltd is performing at only 74 per cent of its capacity.

### Implications of Under- and Over-utilisation of Capacity

In the previous example for Plastic People Ltd, we showed that the business was under-utilising its capacity. This means it was not making the most of the machinery/workforce/equipment available to it. There are also implications for over-utilisation, where a business runs at more than 100 per cent of its available capacity.

There are problems that come with under-utilisation of capacity, including:

- The fewer resources that are used by a firm, the higher the fixed costs are. If fixed costs are spread across more products, they will work out cheaper.
- Firms that under-utilise their capacity run the risk of not meeting demand. In this case, a firm would have excess capacity that it is unable to fulfil. This could create a negative image for itself and a reputation that is not strong enough to compete.
- The workforce of a firm that under-utilises its capacity could be lacking in motivation to improve.

Over-utilisation of capacity comes with many issues, too, including:

- Workload can get too intense for a firm's workforce, who then become demotivated.
- Whenever machines or people do things quickly, they run the risk of shedding quality. They may be able to produce more goods in the given time, but each product may be of lower quality.
- If a business is already producing at over-capacity, it will have problems if demand increases further. Higher as the firm will have no way of fulfilling its surge in custom.
- Maintenance of equipment and machinery becomes near-impossible since they are in use all the time.

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## Silver Linings

It is worth noting that there are positives that come from both over- and under-utilisation. Under-utilisation, for instance, will have time available to do necessary maintenance on equipment. Over-utilisation, on the other hand, will create maximum sales (if quality is maintained), which can be reinvested into the business in order to purchase more capacity to meet demand.

## Improving Capacity Utilisation

As we now understand, fixed costs do not change and so businesses should always aim to use as much of the capacity they have available. This will help keep production costs low while still being able to fulfil potential demand.

A firm can make improvements to its utilisation (whether by increasing or decreasing usage) in several ways:

- **Estimate the long-term level of demand:** this will help the business prepare for future demand so that it is always working as close to the necessary capacity as possible.
- **Create more demand:** this can be done through promotion and brand strategy. If a business has the capacity to produce 100,000 units, for example, but does not have enough demand to meet that capacity, it will not be able to utilise that capacity.
- **Understanding the consumer:** this is normally done through primary and secondary research. The more a business learns about its customers (and potential customers), the better it can tailor its products to make sure it meets demand.
- **Sale of assets:** if the business is continually unable to use its entire capacity, it may wish to consider selling some of its machinery/equipment. This money could then be used by the business as promotion in order to create more interest in its goods.
- **Employing more/fewer staff:** capacity can take the form of equipment, but it can also be staff. If a business has more employees than its consumer demand requires, it may wish to consider employing fewer staff. Likewise, if demand is high, the business could need more staff in order to be able to manufacture goods.

## 2.4.2. Questions

Please write your answers on a separate piece of paper or in an exercise book.

3. Copy out the following statements into the correct categories.

Statements
<ul style="list-style-type: none"> <li>• Quality might be ignored and so can decrease to the point of products being unusable</li> <li>• The fewer goods a firm produces, the higher the fixed costs per unit</li> <li>• Maintenance of equipment becomes impossible as there is simply not enough time</li> <li>• Workforces lack in motivation as there is little drive to over-achieve</li> <li>• Motivation of employees decreases because the amount of work is too intense</li> <li>• Firms are unable to meet sudden spikes in demand</li> </ul>

Drawbacks of over-utilisation	Drawbacks of under-utilisation

4. A cutlery manufacturer produces between 250,000 and 300,000 sets of cutlery each year. If demand for the goods, the firm uses three expensive pieces of machinery (which it owns) and employs 100 employees. Over the years, however, the demand for cutlery has fallen and so the firm has had to cut back on production.
- Identify whether the manufacturer is experiencing under- or over-utilisation.
  - Explain one way in which the firm could improve its utilisation of capacity.

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## 2.4.3. Stock Control



### Key Points Covered

- The Stock Control Diagram
- Buffer Stocks
- Implications of Poor Stock Control
- Just-in-time Manufacturing
- Waste Minimisation
- Competitive Advantage

### The Stock Control Diagram

Stock involves the raw materials, supplies or goods that businesses hold over a specific period of time. Businesses must keep tabs on (i.e. *manage*) what stock they have, what they have sold/used and when they need to order more. Without good stock management, most businesses would go out of commission very quickly.

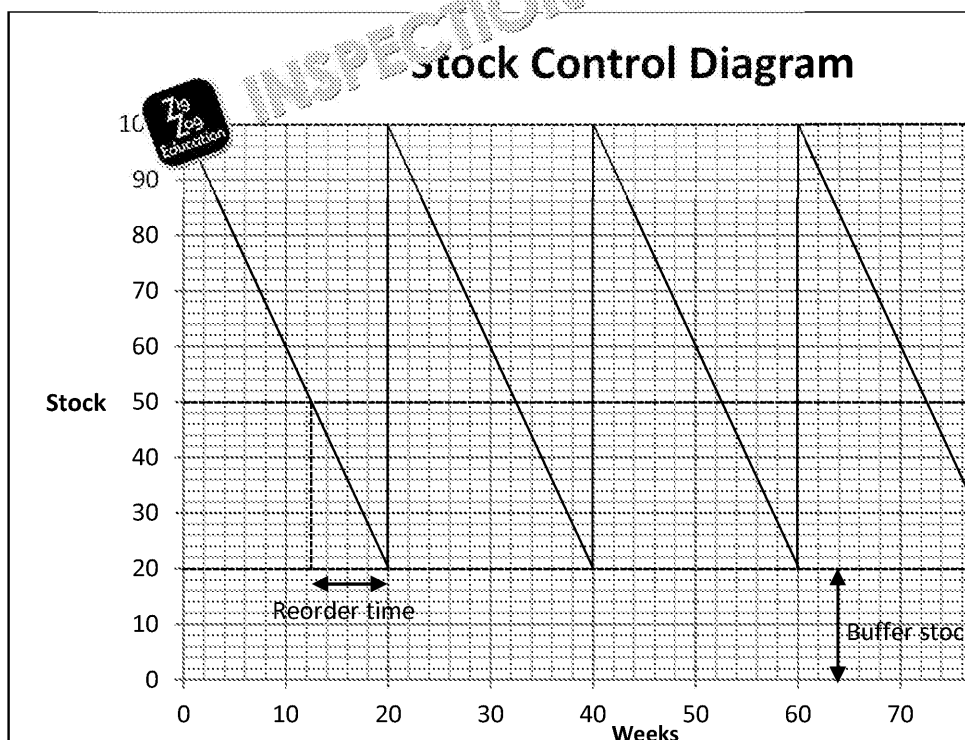


Diagram: Stock Control Diagram

The above is an example stock control diagram. This allows us to identify:

- The reorder level of stock
- The level of buffer stock available
- The time it takes for stock to arrive once ordered

The *buffer stock* shows the difference between the absolute minimum stock that a business can have (in this case, 20 units) and zero.

The *reorder level* tells us how low the stock can get before the company needs to order more.

The *reorder time* tells us how long it takes for new stock to arrive once the company has ordered it.

In the example above, new supplies take around seven weeks to arrive once ordered. The company must order stock once there are 50 units left. The stock arrives by the time the company gets to 20 units.

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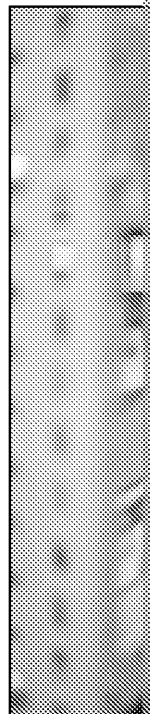
## Buffer Stocks

The buffer stock of a business is the difference between the minimum amount of stock to hold and absolute zero. For example, if the minimum number of brushes a paintbrush company has to hold is 150 this is also the business's buffer stock.

There are positive and negative sides to holding buffer stock, which differ from company to company.

### ✓ Advantages of holding buffer stock:

- **Production flow:** large manufacturing firms, such as Toyota cars, need to keep a steady flow of production. If stock falls below a certain point (or even down to zero), the business will hit a bottleneck, which will slow production to a halt. Keeping a steady flow of stock, therefore, keeps production flow, too.
- **Ability to satisfy demand:** businesses with buffer stock readily available ensures that they are always able to fulfil normal demand. Supermarkets, for instance, keep a steady flow of stock (cans of tins of milk or bags of potatoes) because they know there will be demand.
- **Coping with peaks in demand:** this is important for most businesses, especially those whose demands are influenced by cultural trends. Take a shoe shop, for instance: if the owners learn that their shoes have received a surge in popularity (perhaps a famous singer was seen wearing them), they will need to react by buying in more stock so that they can satisfy the sudden spike in demand.
- **Economies of scale:** buying in bulk helps businesses bring down their cost of sales because they have more power to negotiate with suppliers. An electronics company, for instance, might be able to purchase raw materials more cheaply if they place a significantly high order with their supplier.



### ✗ Disadvantages of holding buffer stock:

- **Opportunity costs:** one main problem for any business is the fact that the stock could have been better used as reinvestment in the company. It is a risk for the business.
- **Costs of storage:** this can involve stocking warehouses full of finished products (for manufacturing firms), filling shelves and freezers (as with supermarkets) or even keeping stock in shops or convenience stores). Stock might need to be chilled, heated or frozen, and a system of management, such as a computerised database. All of these aspects add to the cost.
- **Depreciation/obsolescence:** let's use the shoe shop example again. If a fashion trend is popular, management may respond by purchasing the item in bulk. However, if the trend fades, enough of these shoes while they are at their peak in popularity, the shoes are worth nothing compared to what management originally paid for them. Supermarkets for whom the majority of goods have sell-by dates, and so do they, are at a disadvantage.
- **Security:** stock has to be taken care of; this is not just to keep it refrigerated or frozen, but also not to be stolen. Therefore, companies go to great lengths to mind their stock, using systems such as CCTV.
- **Insurance:** in case any stock is stolen or damaged, businesses need some form of insurance for this, which can be very expensive, especially if the goods are valuable.
- **Administration:** buffer stock is handy for fulfilling demand, but the business has to manage it. They have to order it, transport it and check it is up to the correct standard. This all costs money.

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## Implications of Poor Stock Control

Firms that have too much stock (i.e. much more than demand) are running inefficiently, wasting money that could be better used as investment in the business. Likewise, not having enough stock is a significant risk: if businesses have insufficient stock levels, they will make a loss on the goods they are unable to satisfy.

These are known as *stock-in* and *stock-out* costs, i.e. the costs of holding too much stock (stock-in) or not enough (stock-out).

### Let's use some examples:

A large electronics retailer has been at the forefront of consumer technologies for years. When a new computer or DVD player, they go there first. The retailer has ignored the latest trend, however, that it is a fad that will die very soon. However, the fad did not die – in fact, it exploded. The business has now lost sales to its competitors who purchased lots of new stock. The costs in this instance, having insufficient stock to meet demand.

If the business had been correct, then their competitors would have been left with a large amount of stock that they could not shift. This would have meant significant stock-in costs for the business's rivals.

Christmas time is normally a good period for butcher shops, with turkeys their biggest seller of the season. It wasn't always a good time for one small shop, though, who would purchase enough birds to satisfy demand but never sell them all. One year, in fact, they bought 100 birds and only sold 25. The other 75 birds could barely be sold, especially after the Christmas period, and so the business suffered significant stock-in costs. The shop have since learned from their mistakes and now take orders for turkeys at Christmas. Customers must pay for each turkey in advance and collect one week before Christmas. This ensures that the business purchases only enough birds to satisfy demand – no more, no less – which makes the Christmas period a happy one for the business.



## Just-in-time Management of Stock

The just-in-time (JIT) method of managing stock has become more widely adopted over the years. This method keeps a low inventory of stock and produces only to specific orders. This method requires a forecasting method, wherein businesses predict how much demand there will be and produce to cover this; instead, businesses produce to requirements. This method requires a business must be able to inform their suppliers in time when consumer demand rises.

### Advantages of JIT Management of Stock

- **Time saver:** businesses receive an order, request the stock from their suppliers, and put it directly on the shelves. There is no need to keep stock in storage.
- **Money saver:** the business does not hold as much money on stock until they are sold.
- **Compact production:** with less stock in storage, a company's production space is more compact and efficient as a result.
- **Adaptability:** a business can instantly add value to its stock because it is either a raw material or manufactured/converted into a good. There is very little time wasted in which would be money wrapped up in stock.
- **Less obsolescence:** this is still a risk, but businesses run much less risk of holding stock that they cannot sell and sell goods when there is demand.
- **Less risk to goods:** if fewer goods are in storage, then they are less likely to be damaged or lost.

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### Disadvantages of JIT Management of Stock

- **Suppliers:** businesses need suppliers they can trust to do a good job at supplying materials. If a supplier fails to produce stock in time, the business will suffer greatly.
- **Expensive:** this can be expensive to do on a grand scale, as businesses need sophisticated computer systems in order to monitor incoming orders and available stock.
- **Mass orders:** if a business using JIT stock management suddenly receives a large order, it may struggle to cope with the volume of requests. Moreover, the business's suppliers may not have enough stock.
- **Unforeseen circumstances:** war, famine and natural disasters can put huge pressure on a business's supplier.

The JIT method of stock control is particularly suited to businesses such as car manufacturers and book print on demand. In both of these cases, stock is only produced once an order has been received. It is closely linked with *waste management* and *lean production* since it helps a business to reduce waste and improve efficiency from start to finish.

### Waste Minimisation

Businesses try to reduce the amount of waste they create for many reasons, from addressing environmental concerns to reacting to customer demand. By correctly managing their waste, businesses can reduce costs while simultaneously bringing down their costs of production.

Technology has been a major player in the movement towards waste minimisation. Businesses use these new technologies in order to:

- Reduce defective products
- Curb overproduction of goods
- Decrease wait time for consumers and downtime of machinery
- Monitor and moderate unnecessary stock
- Streamline production

Waste minimisation also relates to actual waste, i.e. overuse of product packaging. Businesses can bring down their packaging costs by using reusable boxes. Transport costs, meanwhile, can be reduced by moving their goods in bulk rather than per order.

### Competitive Advantage from Lean Production

Lean production is a form of production that focuses on waste-saving measures, in particular for manufacturers. This form of production involves a range of techniques, including:

- JIT
- Total quality management (TQM)
- Kaizen
- Cell production
- Reduction of excess stockholding
- Improvement of communications between production and marketing departments

#### Further Reading:

Jump to the chapter on *Quality Management* to learn more about *TQM* and *kaizen*.

### Benefits of Lean Production

Businesses can reap many rewards from employing lean production, including:

- **Productivity:** this increases as employees decide the most efficient way to produce goods.
- **Motivation:** businesses can motivate their workforces by giving more responsibility.
- **Shared decisions:** empowered workforces take part in decision-making, with management and opens up the potential pool of ideas.
- **Waste management:** businesses that operate lean production benefit from reduced stockholding (from JIT methods), which increases available funds and, therefore, profitability.
- **Quality:** employees and management work together to streamline and improve processes, which can help increase quality.

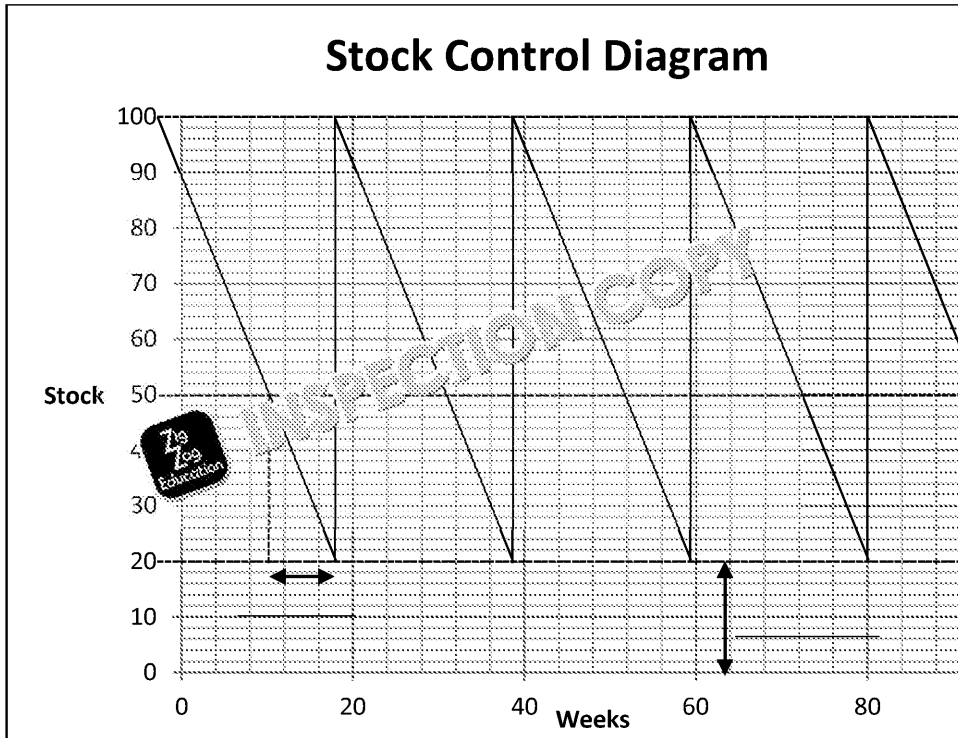
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### 2.4.3. Questions

*Please write your answers on a separate piece of paper or in an exercise book.*

5. Copy out the following stock control diagram and fill in the five missing labels.



6. Identify and explain two reasons why companies hold buffer stocks.

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## 2.4.4. Quality Management



### Key Points Covered

- Quality Assurance, Control and Circles and Total
- Quality Management
- Continuous Improvement
- Competitive Advantage

The quality management techniques used by businesses relate closely to those of

### Quality Assurance vs Quality Control

These two terms are frequently used in business and are often confused. Let's set *quality assurance* and what is *quality control*.

	Quality Control (QC)	Quality Assurance (QA)
<b>Description</b>	Analysis of quality in a finished good/service.	Analysis of processes that are used to produce goods/services.
<b>Why used?</b>	QC is a corrective method. It helps identify and fix defects in goods before they are released.	QA is a preventive method to improve product quality.
<b>When used?</b>	This is a reactive measure. Businesses make improvements to any defects at the end of the production process.	This is a proactive measure. QA is in place before production begins to forecast and prevent defects from occurring.

**Quality Circles:** One way for businesses to empower their workforces is to use *quality circles*. These are groups of their employees into groups (quality circles) and give them direct responsibility for helping to improve – business processes. The circles identify potential for enhancement and efficiency.

### Kaizen

Kaizen businesses work to improve their processes with the idea that this should lead to better outcomes. Unlike quality circles, which give responsibility to some employees, kaizen involves the whole of the workforce by continually asking for ideas on how employees believe their business can be improved.

The kaizen method (also known as *continuous improvement*) can bring about many improvements in employee motivation and productivity, reduction in wasteful processes, higher quality of a business's final products/services. Firms that use kaizen consider it an integral part of their business. A good example of kaizen-focused business is the Japanese car manufacturer Toyota.

### Did You Know?

The word 'kaizen' is Japanese for 'improvement'.

The philosophy behind kaizen is based on *gradual change* and *employee suggestion*. Small, considered steps (rather than focusing on large, individual innovations) with a large volume of changes will eventually result in huge improvement.

Businesses cultivate a *culture* of continuous improvement by encouraging their workforce to make suggestions. These suggestions can be as big or small as necessary – sometimes improving the process creates the most noticeable of results! Suggestions can be given anonymously, using a suggestion box, or by any person. Kaizen businesses focus on the talents of their employees, and their ability to improve, rather than invest in expensive machinery in order to get to the same outcome.

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Kaizen may seem like a long-winded (and, therefore, pricey) way of working, but by involving the people most involved in a business's quality procedures day in and day out), it is a foundation for innovation that gives them a competitive advantage over any rivals. It improves quality, but increases motivation, too, as employees feel more valued and are, therefore, willing to go the extra mile for their employers.

### Total Quality Management (TQM)

TQM is another method that aims to empower employees: unlike kaizen, which involves the entire business; it is the culture of the organisation. Employees act like a team, analysing the work they receive from other departments in order to, as a unit, create the best quality product/service possible.

### Competitive Advantage of Quality Management

Keeping goods/services to a high standard of quality, i.e. how well the product does what it is intended to do, gives a business competitive advantage over its rivals – the higher quality your goods/services are, the more they appear to consumers. This quality image can also give the perception that there are of a similar quality to repeat purchases and word-of-mouth sales. In many cases, high-quality products/services are more willing to pay high prices and so, if you offer high quality, high prices consumers may be more likely to purchase from you.

### The Competitive Advantage of Low Quality

Quality is an integral element to the success of many businesses. It allows firms to charge high prices and, therefore, earn high profits. Consumers often see high prices and associate them with high quality and so the companies continue to benefit from product sales. The element of selling price is not integral to all businesses, however.

The fashion retailer ZARA is a good example of a business that sells items at low prices while still achieving significant global success. The firm concentrates on imitating designer fashions, and does this both quickly and cheaply. ZARA's customers do not demand the highest quality possible. Rather, they are looking for fashionable items, which ZARA sells in the thousands. The firm produces its products at an efficient rate and so can easily react to sudden trends. In this sense, ZARA's business model is low selling price, but extremely high sales.



### 2.4.4. Questions

Please write your answers on a separate piece of paper, or in an exercise book.

7. Identify two differences between quality control and quality assurance.
8. A company manufacturer is considering whether to employ the kaizen method. Which kaizen method could benefit the company.

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## Focus: BMW

### Questions:

- Assuming that the maximum capacity for Rover in 1999 was 100,000 units and that the maximum capacity for BMW in 2007 was 250,000 units, calculate the capacity utilisation for both.
- Identify and explain two ways Rover could have improved its capacity utilisation.
- Compare the benefits and drawbacks of BMW investing so much money in its Cowley plant.
- BMW uses TQM in all its business processes. Analyse the potential value that the company can draw from this practice.



### German Car Giant Shows Benefits

The new Mini was launched in 2006 by car manufacturer Rover, the car is now owned by BMW.

The German brand is known for its high capacity and this takeover was no exception. In 2007, BMW produced 56,000 cars using 3,500 employees, tripled this figure in 2007, employees producing 250,000 cars.

Since BMW took over Mini, the company has improved the cars were manufactured, its production process, implementing high-quality standards, developing strong communications and making work schedules more flexible.

BMW also invested £230m into its Cowley plant, a further £100m in 2005. The company has installed robotic machinery throughout that controls all processes in the correct order. The company's Quality Management (TQM) in BMW's role for any employee is to monitor and improve the production process.

http://www.bmw.co.uk/mini-case-study-bm

## 2.4. Keywords

<b>Job production:</b>	When a business produces goods/services one at a time.
<b>Batch production:</b>	When a business produces goods/services in groups.
<b>Flow production:</b>	A constant flow where a production line focuses on producing a single product.
<b>Cell production:</b>	When a business splits itself into specialist areas, each producing a good/service.
<b>Over-utilisation of capacity:</b>	When a business produces more goods/services than it has the capacity to produce. This can lead to stress on overworked staff and minor damage to equipment and maintenance of equipment.
<b>Under-utilisation of capacity:</b>	When a business produces fewer goods/services than it has the capacity to produce. This can lead to staff being underworked, which may demonstrate a waste of money on employees they do not need.
<b>Productivity:</b>	A company's hourly rate of output per each input.
<b>Efficiency:</b>	How much a business can achieve through a minimum of costs.
<b>Kaizen:</b>	Employees are organised into groups (quality circles) for continuously analysing, and improving, the production process.
<b>TQM:</b>	A constant, company-wide culture of quality management.

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## 2.4. Answers

1. Complete the following sentences using the phrases *flow, job, batch*.  
Car manufacturers, such as Toyota, are well-known examples of FLOW production. They use specialised machinery on the creation of the same product over and over again. An independent manufacturer, on the other hand, uses JOB production because each product is made individually. A classic example of BATCH production is paint. Paint manufacturers also use this method because they have to use CELL production because it allows each group of workers to focus on a specific task.

2. Identify and explain two ways in which a firm can increase its efficiency.  
Answers may include, but not limited to: productivity (i.e. encourage increased output through targets and reward schemes), inputs vs outputs (i.e. fewer inputs for the same amount of outputs for more output), innovation (i.e. creating better quality products or more efficient ways of producing them) and waste reduction (i.e. creating less waste).

3. Copy out the following statements into the correct categories.

Advantages of under-utilisation	Drawbacks of under-utilisation
<p>The fewer goods a firm produces, the higher the fixed costs per unit</p> <p>Workforces lack in motivation as there is little drive to overachieve</p>	<p>Quality might be ignored at the point of production</p> <p>Maintenance of equipment is more expensive as there is simply not enough use</p> <p>Motivation of employees is low as the amount of work is too low</p> <p>Firms are unable to spread their costs</p>

4. A cutlery manufacturer produces between 250,000 and 300,000 sets of cutlery. To produce this many goods, the firm uses three expensive pieces of machinery and employs a workforce of 200. In recent years, however, the demand for cutlery has fallen and the firm has had to cut back on the number of goods it produces.

a. Identify whether the manufacturer is experiencing under- or over-utilisation of capacity.  
Students should show that the manufacturer is experiencing under-utilisation of capacity.

b. Explain one way in which the firm could improve its utilisation of capacity.  
Ways to improve under-utilisation of capacity might include:

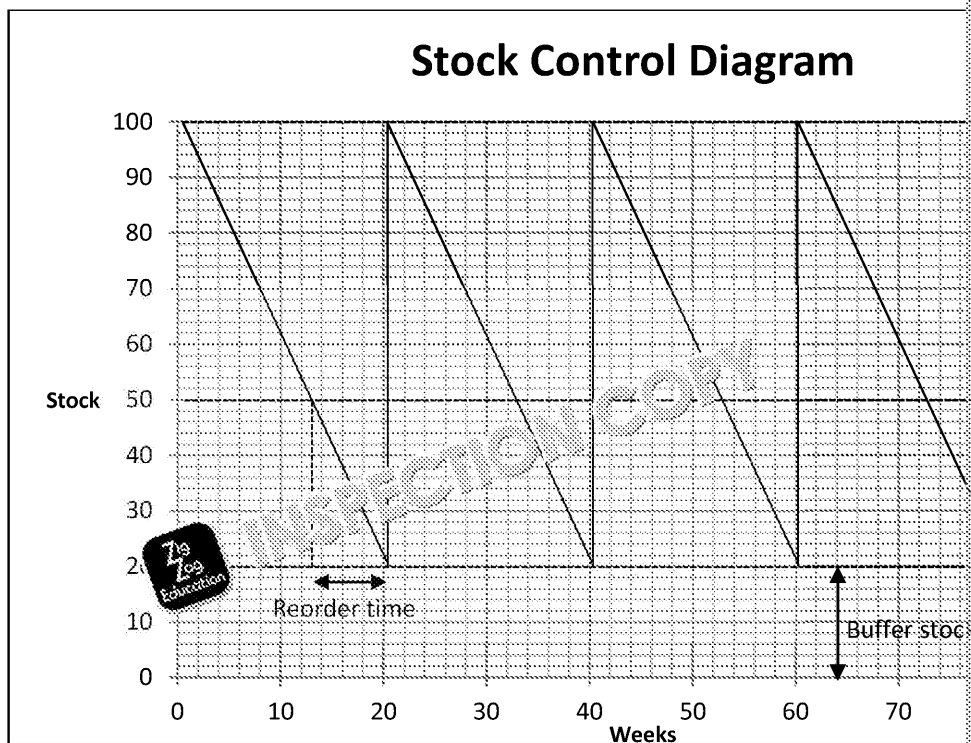
- Sales forecasts could help the firm predict any further drops in demand
- Create more demand through advertising, branding and promotion
- Market research to find out where the firm might be going wrong
- Sell off one of the pieces of equipment to free up some cash for other uses
- The firm may have to make redundancies if there simply isn't enough work

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5. Copy out the following stock control diagram and fill in the five missing parts.



6. Identify and explain two reasons why companies hold buffer stocks.

Students might include any of the following:

- Buffer stocks keep a company's production flowing, lessening the risk of stockouts.
- A steady flow of stock also means firms can always fulfil their demand.
- Keeping more stock than enough allows a firm to react to spikes in demand.
- Bulk-buying of stock can lead to economies of scale through a reduced unit price.

7. Identify two differences between quality control and quality assurance.

Quality assurance is a proactive measure that involves managerial decisions to implement processes that best ensure their goods are produced to the high standards required.

Quality control, on the other hand, is a reactive measure. It involves the comparison of products before they are made available on the market.

8. A computer manufacturer is considering whether to employ the kaizen approach. Explain one way in which kaizen could benefit the company.

Students could explain any of the following:

- Increase in employee responsibility can lead to motivation.
- Employees are the ones who know the processes best and so they can identify areas for improvement, leading to an increase in efficiency and productivity.
- This also relates to reducing wasteful processes, higher quality improvements in the business's final products.

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## 2.5. External Influences

### 2.5.1. Economic Influences



#### Key Points Covered

- The Effects of External Influences on Businesses
- The Effect of Economic Uncertainty on the Business Environment

**Quantitative Skills Coverage**

**QS 4:** interpret index numbers

There are many economic factors that can influence the success of a business.

#### **Inflation**

This describes the increase in general prices in an economy. Inflation is measured by the Consumer Price Index (CPI), which considers the average consumer's shopping basket of goods and services.

An inflated economy has a few benefits to businesses, such as:

- It helps with borrowing as long as the available interest rate is less than the inflation rate.
- It raises the value of property and stock, which increases a business's capital.
- It can allow businesses to increase their prices without raising suspicion from consumers.

However, an inflated economy poses a lot more negatives to a business than it does positives.

- As inflation increases, so do prices, which can turn away consumers, especially for essential goods.
- Consumers can become price-sensitive and so look elsewhere once there is a cheaper alternative.
- Cash flow becomes much more difficult to come by.
- Suppliers increase their prices, which puts more pressure on businesses to increase their prices.
- Company workers may demand more pay in line with inflation.
- The country becomes less competitive as the currency means less.
- Forecasting becomes difficult since there are so many changes happening.

With all of these examples, the degree of severity for a business depends on how it reacts. If a business offers a particularly price-elastic good, it is very likely that consumer demand will drop once inflation sets in.

#### **Exchange Rates**

These show the price of one country's currency compared to another. In the UK, we compare all currencies to the pound sterling. For example, the US dollar is 1.50 to the pound.

*Appreciation* describes the increase in value of a currency (against another) while *depreciation* tells us the opposite.

Appreciation creates a stronger currency, which can affect a business in many ways:

- Increasing the price at which businesses can sell their products abroad.
- Decreasing the price of imports.

As the price of exported goods increases, businesses may find it harder to sell them abroad, which can harm revenue and, therefore, profits. If businesses sell products that have high prices, they become less competitive as demand decreases due to high prices.

Depreciation creates a weaker currency, which can affect a business in the opposite way to that given above.

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## Interest Rates

These are the costs of borrowing and rewards for lending. Businesses will generally see that the return will be greater than the interest rates they would have to pay.

If interest rates fall, businesses can be affected in the following ways:

- **Less saving:** consumers do not want to save when interest rates are low and so businesses have less money to invest.
- **Credit:** the cost of buying goods on credit decreases and so consumers can buy more goods and services from businesses.
- **Loans/mortgages:** the rates for these decrease, which gives consumers more money to spend on goods and services from businesses.
- **Fewer costs:** a business's fixed costs decrease since interest rates are lower.

If interest rates rise, the opposite would occur with all of these examples. The effect still depends on the type of business. A firm whose product is not very price elastic will be affected as much as a firm whose product is extremely price elastic.

## Taxation and Government Spending

Tax comes from the government and is paid for by businesses:

- Direct tax
- Indirect tax

*Direct tax* is that which is directly felt by the business, such as corporation tax. *Indirect tax*, meanwhile, covers such taxations as value-added tax (VAT) and excise duty (for alcohol, petrol and cigarettes).

Businesses can feel the effects of **taxation** in many ways:

- VAT increases/decreases the price of goods, which in turn increases/decreases demand and the volume of goods a business can afford to produce. Levels of production then inform businesses on decisions regarding redundancies, i.e. if there is not enough demand, there is not enough money to employ workers.
- High corporation tax can scare off new start-ups while low corporation tax can encourage them to enter the market.
- Excise duty can either help or hinder a business – firms selling alcoholic beverages find it difficult to compete with such high taxes to pay.
- Low rates of income tax can give consumers more disposable income, which increases demand for goods and services.
- Some taxes are set so that higher-earning businesses pay more than those that are less profitable, which helps less profitable businesses, while the former make a significant profit.

**Government spending** can significantly affect businesses, too:

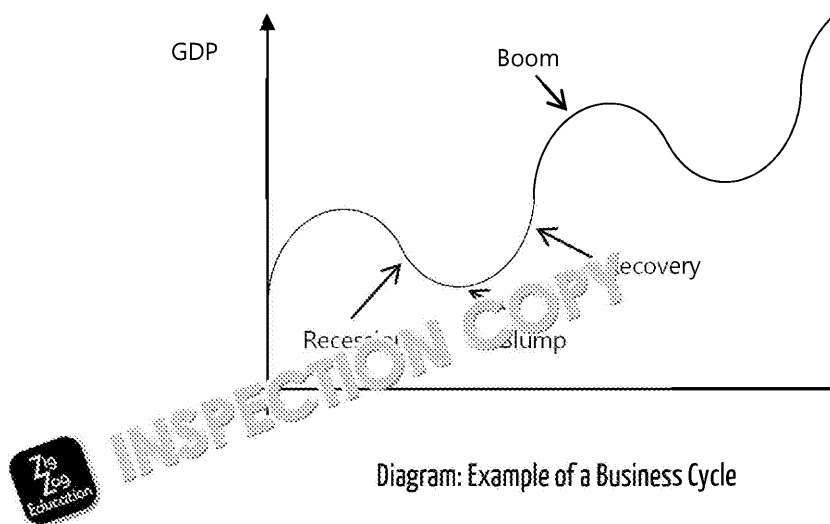
- **An increase in government spending** can create jobs for skilled businesses. For example, if the government is required to build a new school, schools will need to hire teachers, who earn money and spend with other businesses. Suppliers of school materials also get paid for the building work to take place.
- Government spending can also encourage competition between businesses, which can hurt others.
- **A decrease in government spending**, on the other hand, can lead to a decrease in demand for goods and services as there is less incentive to produce.
- Productivity would then decrease, leading to less competition between businesses and higher rates of unemployment.
- With unemployment, of course, comes less consumer spending, which directly affects businesses that are more susceptible to income elasticity of demand.

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## The Business Cycle

This shows the ups and downs of an economy by following the growth of gross domestic product (GDP). The main elements to any business cycle are *boom*, *recession*, *slump* and *recovery*.



The business cycle has effect on a business depending on the income elasticity of its products/services. A car manufacturer, for instance, may be greatly affected depending on where the economy reaches in the business cycle. When consumers have less disposable income, they are less likely to buy as many luxury items, such as new cars. A regular baker, on the other hand, who produces bread, would have fewer problems depending on the business cycle because the majority of people have money available to spend on bread.

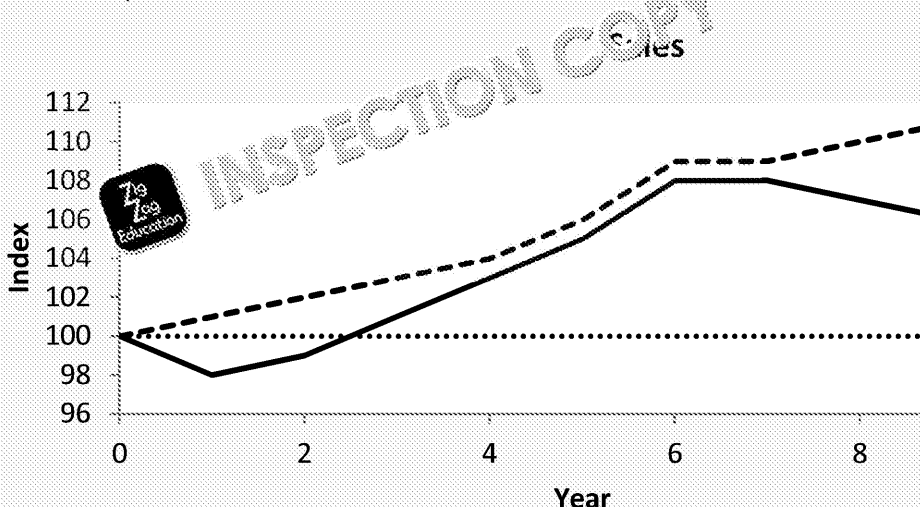
### Interpreting an Index

In business it's often useful to make comparisons over time. One of the best ways to do this is by using an **index**. The key idea is that all subsequent data points can be compared back to an initial point, usually shown with an index of 100 – it's 100 per cent of its value – then following data points can be compared to this base value.

Index numbers are often used to show changes in stock market prices (such as the FTSE 100) or the price level (inflation).

Suppose we have sales figures for a firm in index form. An index of 104 tells us that the value is 4% higher than the base year. Index numbers can be below 100 if the value has decreased compared to the base year then the index will be 97. Index numbers do not have units. When talking about an index for sales for example!

It might help to look at a visual example of index numbers. Below there is a line graph showing the index numbers for two different companies – Firm 1 and Firm 2 – in index form.



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Note how the sales for each firm start at 100 at the base year, year 0. This does not show the same volume of sales. Instead it just shows 100% of their respective starting values. The changes in sales relative to the starting point.

We can see that sales for Firm 2 generally increase over time. The sales for Firm 1, however, decrease to the base year before increasing.

## The Effect of Economic Uncertainty on the Business Environment

Nothing is ever certain in the business world, with economic environments changing all the time. Factors that refer to *macroeconomics* (factors affecting businesses that are beyond their control) and *microeconomics* (factors affecting businesses that are within their control).

Many of the world's leading businesses are dependent on their supply and so they are vulnerable to times of economic uncertainty.

### Let's use coffee as an example

- If the world supply of coffee halved, supply would decrease
- Low supply would turn the bean into an extremely precious commodity
- Suppliers would then be able to charge more for their beans
- Businesses would be forced to increase their costs
- Selling prices would then rise due to higher costs

Businesses create *contingency plans* in order to manage economic problems such as a drop in world supply. These plans set out what to do in an emergency situation. Firms, therefore, need to *forecast* what economic problems are likely to occur, e.g. sudden fluctuation in an exchange rate, so that they can consider the best possible options.

Forecasting, however, is difficult, especially when it comes to uncertainty, and so many businesses take *preventative* measures that will help lessen the effects of economic factors. Many firms source materials from more than one supplier – this way, if supplies dry up from one source, they can use more it can use. Another preventative measure is the use of future contracts, which lock in a price in advance at a fixed rate. This helps prevent exchange issues later down the line, which can be expensive, especially if the exchange rate moves in the opposite direction to what was expected.

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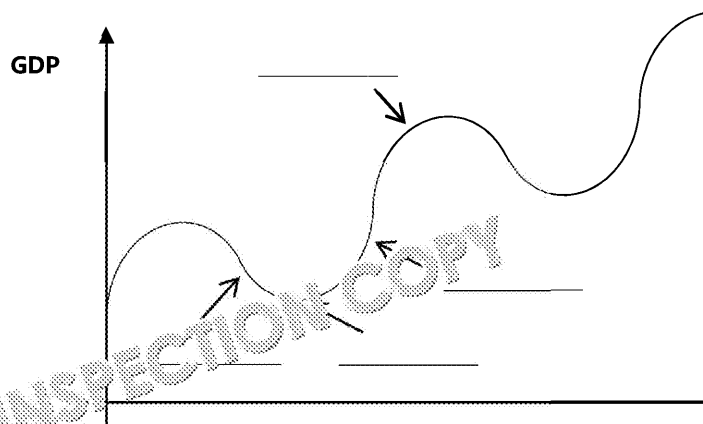
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## 2.5.1. Questions

Please write your answers on a separate piece of paper or in an exercise book.

1. The following diagram shows an example of a business cycle.
  - a. Complete the diagram using the terms boom, slump, recession and recovery.



- b. Identify one characteristic of each stage in the business cycle.
2. Complete the following table to show either benefits or drawbacks to businesses.

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	

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## Competition Policy

This is regulation to ensure businesses are competing fairly in the marketplace. It covers monopolies and cartels. An example piece of legislation is the Fair Trading Act of 1973 which allows the government to investigate business takeovers and scrutinises existing monopolies and anti-competitive practices.

Possible effects for businesses include:

- Lowering prices in order to compete, which brings down profits
- Improved quality
- Fairer competition
- Easier market entry for small businesses, who would otherwise have great difficulty getting a foot in the door
- Punishment (i.e. fines) for anti-competitive behaviour such as collusion and price-fixing

## Health and Safety

This aims to ensure businesses provide safe working environments for their employees. An example piece of legislation is the Health and Safety at Work Act of 1974, which states employers must provide an environment that safeguards the health, safety and welfare of all employees.

Possible effects for businesses include:

- Costs from complying with the legislation
- Enhanced company brand since it promotes a safe working environment
- Increased employee motivation

## 2.5.2. Questions

Please write your answers on a separate piece of paper or in an exercise book.

3. The following shows a list of possible business effects and government legislation. Match each effect to the correct effect.

Motivation increases as working conditions increase
Enhanced company brand since it promotes a good working environment
Improved quality of products/services
Positive branding for any business that significantly reduces its harmful emissions
Lowering prices in order to compete, which brings down profits

EN

4. A paper manufacturer is looking into ways that it can comply with environmental policy. Explain two ways in which the business can benefit from environmental policy.

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## 2.5.3. The Competitive Environment



### Key Points Covered

- Competition
- The Market

### Competition

Whenever two or more businesses go after the same consumers, they are said to be in competition. This can happen in a *direct* way (e.g. two barber shops working in the same street or a streaming service vs a high-street cinema). Both forms of competition affect business performance.

Competition is generally seen as a positive thing: firms compete on low prices (which can become higher (especially if this is the main competitive area) and customer loyalty makes consumers make repeat purchases).

There can be a number of effects to competition, though:

- If price is the main focus of competition, companies may end up sacrificing quality and customer expectations
- Some businesses will eventually fail (normally the smaller ones with less resources) leading to unemployment and harm to the local economy
- As businesses grow competitively, they have the chance to consume smaller and smaller shares of the competitive market

#### Imagine:

A convenience store has existed on the local high street for 50 years. The store sells everything from toilet paper and magazines to dog food and confectionery. The store sells a small selection of vegetables, too, but most vegetable selling is done by the local greengrocers down the street. Recently, one of the big supermarket chains has moved in by opening its own convenience store. This new store sells everything from toilet paper to dog food – even most vegetables – and so pulls in a lot of customers. The convenience store feels the pinch of this through a rapid decrease in customers, as does the greengrocers. Both stores have a choice: they can either try to compete or give up.

Competition affects a business's actions in terms of what products/services it sells. In the example of the greengrocer and convenience store, both would have to change if they wanted to stay afloat. One way to do this would be to offer something the supermarket does not, such as local produce over the international options that supermarkets generally sell, this forces businesses to differentiate. Rather than selling the same things as a supermarket (in bulk and, therefore, much more cheaply), the greengrocer and convenience store can focus on practices to local, independent produce.

### The Market

The greengrocer and convenience store represent one way in which the competitive environment affects businesses. There are many more, however, such as:

- **Market size:** if there are few consumers, the potential for profit is not great. A large market has much potential for sales and, therefore, profit
- **Market price:** many organisations will alter their prices depending on the market conditions
- **Market expectations:** consumers become accustomed to how products are marketed. It is expected, for example, that most book dealers will sell books from a bricks-and-mortar shop window instead of from a digital platform

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There are four main characteristics of a market, notably *perfect competition*, *monopoly*, *monopolopoly*. When a business is considering whether to enter a market, it must understand the market and, therefore, what it can expect. Businesses use many methods to analyse a market. One of the most popular is Porter's *Five Forces* model:

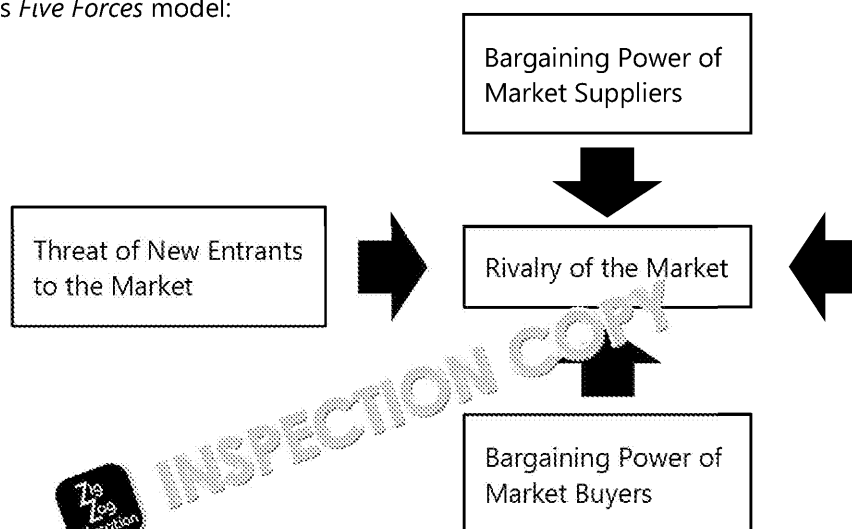


Diagram: Porter's Five Forces

Porter's model shows how the activities of a market are influenced by its key players – businesses. We discuss Porter's Five Forces model in more detail in Theme 3 of Edexcel's Business Course Companion, though, as it gives a visual idea of the market place.

Analysing the market is especially helpful when considering whether to introduce a new product/service. Tesla Motors, for instance, finally brought the battery-powered car to the masses after years of similar feats but without addressing the important aspects of price (must be affordable compared to a petrol-driven car) and convenience (how easy it is to refuel). Since its inception, Tesla vehicles, including the Model S whose computer software can be updated over the air, have received updates to their smartphones receive updates.

### 2.5.3. Questions

Please write your answers on a separate piece of paper or in an exercise book.

5. Explain why the following two market elements are important to a company who wants to introduce a new product/service:
  - a. Market price
  - b. Size of the market
6. Explain two ways in which consumers might suffer from increased competition in a market.

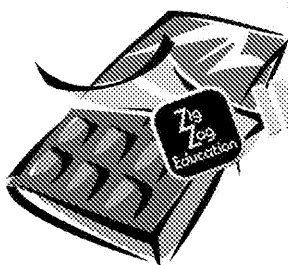
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## Focus: Chocolate

### Question:

Consider the world demand for chocolate and evaluate the effects that contingency plans may have on chocolate-product manufacturers.



### The Other Deficit

The world is eating too much chocolate. In fact, so much that it means the world's cocoa farmers are producing less than the world consumes.

Don't agree? Try these statistics for size: in 2012, the world consumed 70,000 metric tonnes of cocoa, more than it was able to produce. By 2030, the world will be consuming one million tonnes of cocoa, but only producing around two million tonnes.

Part of the reason for this deficit is the dry weather in West Africa, where more than 70 per cent of all cocoa is produced. Drought conditions have brought down productivity in the region. In addition, reserves were also ravaged by a disease called 'swollen shoot' between 30 and 40 per cent of global production.

Farmers are no fools and so, met with this significant deficit, they are ditching chocolate and turning to more profitable crops. World demand is an issue, too. China has gained a huge demand in the country is rising. Worldwide, demand for chocolate is rising. Popular chocolate bars, such as Cadbury Dairy Milk, 10 per cent cocoa while dark chocolate involves 70 per cent and above.

Due to all this, the price of chocolate has risen (by 100 per cent since 2012) and so chocolate manufacturers are struggling. You may have noticed that the prices of chocolate have skyrocketed.

Chocolate manufacturers and farmers are now looking for contingency plans, such as ways to produce chocolate with less cocoa. Some are using trees that produce more beans. However, this is not the actual cocoa present in each bean and so consumers are complaining with their chocolate tasting less like chocolate.

Source: <http://www.washingtonpost.com/blogs/washington-post-views/wp/2014/04/01/the-biggest-chocolate-maker-is-not-producing-enough/>

## 2.5. Keywords

### Competitive



When two or more businesses compete for the same market and/or market share

### Market size:

Measurement of a particular market, such as the number of businesses, total sales volume or profits

### Market price:

The average price of a product/service depending on the market to pay

### Microeconomics:

Factors affecting businesses that are within their control

### Macroeconomics:

Factors affecting businesses that are beyond their control

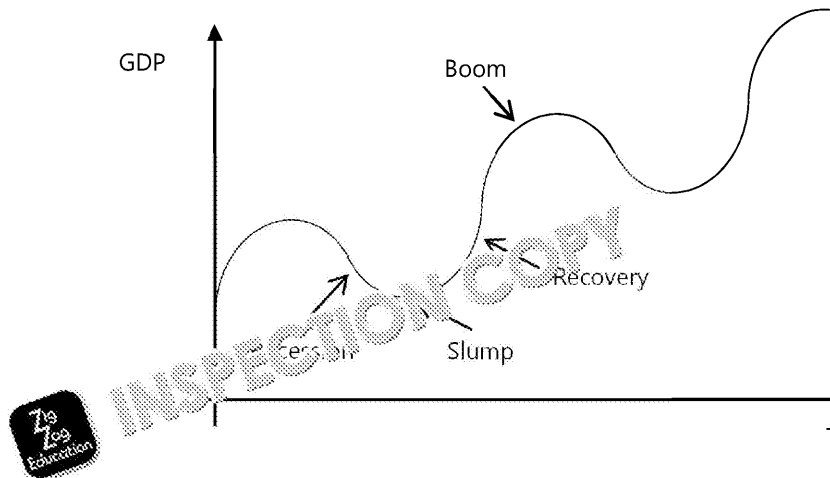
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## 2.5. Answers

1. The following diagram shows an example of a business cycle.
  - a. Complete the diagram using the terms *boom*, *slump*, *recession* and *recovery*.



- b. Identify one characteristic of each stage in the business cycle.

Answers might include (but not limited to):

*Recession: demand falls, output decreases*

*Slump: demand is low, businesses charge lower prices to create sales*

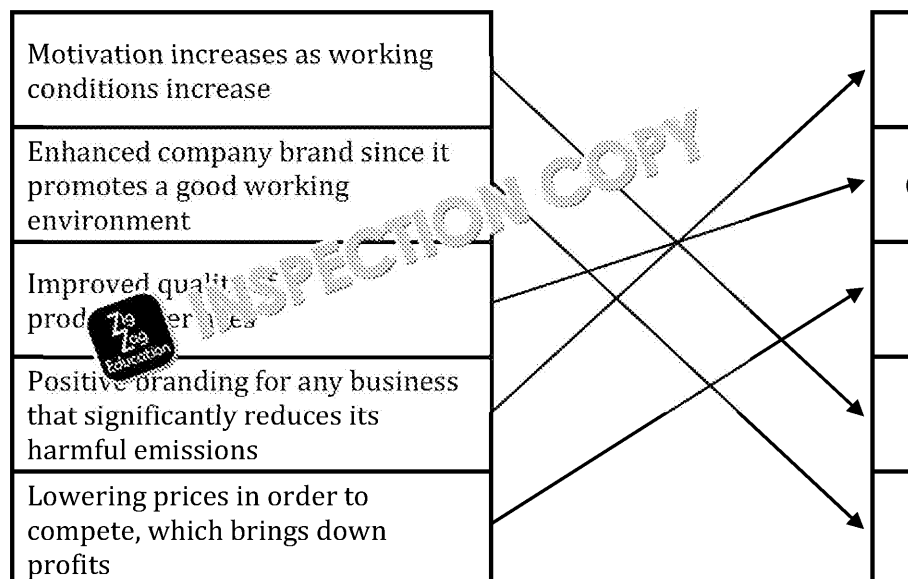
*Recovery: demand increases, profits increase, new businesses can start*

*Boom: demand is greater than supply, excess demand and so businesses*

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

Benefits	
<i>Businesses can increase their prices without raising suspicion</i>	<i>Consumers may become suspicious</i>
<i>It raises the value of property and stock</i>	<i>Business cash flow may be affected</i>
	<i>Suppliers are able to raise prices</i>
	<i>Company workers may lose jobs</i>

3. The following shows a list of possible business effects and government legislation to its correct effect.



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4. A paper manufacturer is looking into ways that it can comply with environmental policy but it does not like the high costs that come with this. Explain two ways in which the business can benefit from complying with environmental policy.

Students can explain any of the following:

- Avoid fines for not complying with policy
- Build up the company brand as environmentally focused
- Doing fewer wasteful practices can save the business money
- The business can improve its branding with the environmentally friendly image

5. Explain why the following two market elements are important to a business and whether to introduce a new product/service:

a. **Market price:**

If there is a market for something, there is likely to be already a market price. Businesses need to be sure that they can produce their goods, services for the right price that they can sell them for. Businesses can also consider the marketing potential for their goods if they can sell them for more.

b. **Size of the market:**

If the market is small (i.e. there are few customers), the potential profit is limited. If the market is large, businesses can potentially make big money when selling to a large market. The size of the market dictates how many consumers will be involved and so businesses need to consider the demand.

6. Explain two ways in which consumers might suffer from increased competition.

Students may include any of the following drawbacks for customers:

- Companies can become too focused on price in highly competitive markets leading to a reduction in quality
- Reduction in quality can also relate to health and safety issues for consumers
- If high competition causes a business to fail, consumers may suffer (as they are also part of the business's local economy)
- Businesses that grow and eventually consume smaller firms may have a negative impact on the local economy, such as having great influence over the prices consumers pay

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## Keyword Glossary

<b>Batch production:</b>	When a business produces goods/services in groups
<b>Break-even:</b>	the point where total costs of producing a good/service equal the total revenue earned (i.e. where the lines on the graph intersect)
<b>Cash:</b>	Money available for payment of day-to-day activities
<b>Cell production:</b>	When a business splits itself into specialist areas, each responsible for the production of a good/service
<b>Competition:</b>	When two or more businesses compete for the same customers and/or market share
<b>Contribution:</b>	The difference between the variable costs of producing a good/service and the revenue a company earns from selling it
<b>Current assets:</b>	These are assets that a business owns for up to a year. These assets are easier and quicker to convert into cash
<b>Current liabilities:</b>	debts that a company has and that will be paid within a year
<b>Disposable income:</b>	The amount of cash consumers have available to spend on goods and services that is absolutely necessary
<b>Dividend:</b>	The share of the profits that shareholders receive
<b>Efficiency:</b>	How much a business can achieve through a minimum of average costs
<b>Fixed Assets:</b>	Things such as property and equipment that are owned by a business
<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 exchange
<b>Flow production:</b>	A constant flow where a production line focuses on producing a large number of identical goods
<b>Grant:</b>	Cash that is given to a business. Unlike with loans, grants do not have to be paid back.
<b>Gross profit:</b>	The difference between revenue and cost of sales
<b>Historical budget:</b>	Companies create a budget based on those of previous years
<b>Job production:</b>	When a business produces goods/services one at a time
<b>Kaizen:</b>	Employees are organised into groups (quality circles) for continuously analysing, and improving, the production process
<b>Liquidation:</b>	A company's assets are not big enough to pay its debts. The company then sell off its assets in order to pay its debts
<b>Liquidity:</b>	The ability that a business has (through its assets) to pay its debts
<b>Long-term liabilities:</b>	debts that a company has and that will be paid in more than a year
<b>Macroeconomics:</b>	Factors affecting businesses that are beyond their control
<b>Market price:</b>	The average price of a product/service depending on the number of people who want to pay
<b>Market size:</b>	Measurement of a particular market, such as the number of people, the total sales volume or profits
<b>Microeconomics:</b>	Factors affecting businesses that are within their control
<b>Net assets:</b>	This is what is left once all liabilities have been subtracted from total assets. The calculation for this is Fixed Assets + Net Current Assets

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<b>Net current assets:</b>	Also known as Working Capital, this is the finance its day-to-day processes. It is calculated with the $\text{Net current assets} = \text{Current assets} - \text{Current liabilities}$ .
<b>Net profit:</b>	The profit left after deducting COS and all operating expenses.
<b>Operating profit:</b>	The difference between gross profit and other operating expenses.
<b>Over-utilisation of capacity:</b>	When a business produces more goods/services than it has the capacity to produce. This can cause stress on overworked staff and minimise downtime and maintenance of equipment.
<b>Productivity:</b>	A company's hourly rate of output per each input.
<b>Profit:</b>	Money that is left after all expenses and dividends.
<b>Profitability:</b>	How profitable a business is, comparing gross, operating and net profit to sales revenue.
<b>Sales forecast:</b>	A prediction of the sales a company will make in the future.
<b>Sales revenue:</b>	The amount of cash generated by selling products.
<b>Sales volume:</b>	The number of units sold.
<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 for a stake in its success.
<b>Stock market:</b>	A place where company shares are bought and sold. Examples include the New York and London stock exchanges.
<b>TQM:</b>	A constant, company-wide culture of quality management.
<b>Under-utilisation of capacity:</b>	When a business produces fewer goods/services than it has the capacity to produce. This can lead to staff being underworked, which may demonstrate a waste of money on employees they do not need.
<b>Variable costs:</b>	These are costs that change according to the number of units produced.
<b>Variance analysis:</b>	A method to demonstrate how much of its budget a company has overspent or underspent.
<b>Zero-based budget:</b>	All departments in a company start with no budget. They must justify every pound they need in order to qualify for a budget.



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## Focus: Answers

### Focus Answers: Innocent Drinks

**a) Identify and explain two reasons why a company chooses to issue shares.**

Possible reasons may include (but are not limited to):

- Expansion: as a way to grow the business without having to invest
- Payback: investors do not expect payment from their share owners for profit
- Low cost: the business does not have to pay anything in order to go

**b) Explain two ways in which Innocent Drinks' success could have been affected if it had been owned by the Coca-Cola Company.**

Possible ways in which Innocent Drinks could have been affected include:

- Marketing power: the Coca-Cola Company now has a lot more money behind its marketing campaigns and could fund more surveys
- Investment: the Coca-Cola Company has a lot of funding that can be used to fund Innocent Drinks' potential for firm growth
- Branding: Coca-Cola could bring Innocent Drinks to more customers than they ever have done alone. On the other hand, Innocent Drinks may lose customers who do not agree with the ethics of Coca-Cola. This could create a new customer base.

**c) Compare the benefits and drawbacks of a business having unlimited liability.**

Possible benefits and drawbacks for unlimited liability include:

- The owners are completely responsible for all debts that affect the business
- The law does not distinguish between a business and its owners
- The personal assets of the company owner are liable if the company goes bankrupt
- Responsibility falls with the owner and so do all decisions

Possible benefits and drawbacks for limited liability include:

- It encourages shareholders to invest since they are only liable for the amount they have invested
- The law separates the owners of a business and the business itself
- The personal assets of the company owner are not liable if the company goes bankrupt
- Though the business is helped by shared ownership, this can also mean there are many voices all trying to guide the same business

**d) Analyse why the Coca-Cola Company decided not to make many changes to the marketing practices of Innocent Drinks.**

Some of the points that students may consider in their analysis include (but are not limited to):

- The already-existing branding of Innocent Drinks
- The customer base that Innocent Drinks has
- The expectations for a small business like Innocent Drinks
- The assumptions that Coca-Cola makes about Coca-Cola and how it can be used
- The marketing power that Coca-Cola has and which it could use to promote its own products

### Focus Answers: Budgeting

**Evaluate the validity of Herman Heyns's statement, comparing any business's benefits to the drawbacks that Heyns mentions.**

Some of the benefits that students could consider as part of their answer include:

- Budgets can be based on figures from previous years, which make them more accurate
- Managers can plan for what cash they will have available in future
- Companies can plan for periods when cash is tight and better understand when they will receive payments and need to settle debts
- Budgets help companies decide whether a project is worth taking on

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**Focus Answers: Coca-Cola**

a) Calculate the following three figures for 2014, 2012 and 2010:

i) Gross profit

ii) Operating profit

iii) Net profit

i) 2014: \$2,973m	2012: \$2,900m	2010: \$2,480m
ii) 2014: \$1,019m	2012: \$928m	2010: \$810m
iii) 2014: \$893m	2012: \$837m	2010: \$746m

b) Calculate the following three figures for 2014, 2012 and 2010:

i) Gross profit margin

ii) Operating profit margin

iii) Net profit margin

i) 2014: 35.98 per cent (to 2 d.p.)	2012: 35.97 per cent (to 2 d.p.)
ii) 2014: 12.33 per cent (to 2 d.p.)	2012: 11.51 per cent (to 2 d.p.)
iii) 2014: 10.81 per cent (to 2 d.p.)	2012: 10.38 per cent (to 2 d.p.)

c) Using the data from your calculations, analyse whether The Coca-Cola's profitability has increased or decreasing and suggest how the company could improve its profitability. Students should show that Coca-Cola's profitability has increased and decreased. Gross and net profitability are lower in 2014 than in 2010 while operating profitability is higher though not by much. Students may wish to highlight the fact that we need to make a more accurate analysis.

Coca-Cola could improve its profitability in several ways, including (but not limited to):

- Increase promotion of certain products in order to generate higher sales
- Decrease cost of sales by reducing the amount of raw materials used in the product/service
- Increase employee efficiency
- Produce more goods in order to generate further sales
- Make cuts to the company's day-to-day expenses, only funding the most essential

**Focus Answers: BMW**

a) Assuming that the maximum capacity for Rover in 1999 was 100,000 units and the maximum capacity for BMW in 2007 was 250,000 units, calculate the capacity utilisation for both.

1999: 56 per cent capacity utilisation

2007: 80 per cent capacity utilisation

b) Identify and explain two ways Rover could have improved its capacity utilisation.

Possible ways to improve capacity utilisation might have included:

- Sale of assets: if Rover had equipment / assets that it wasn't fully utilising, it could have sold them off in order to generate more cash for investment in the business.
- Employ more/fewer staff: perhaps the business had too many workers. If it had fewer, the business could have been more efficient. With too many, Rover would have been overstaffed and therefore more expensive than it needed to be.
- Increase demand: if Rover had worked more at its promotional activities, it could have created more demand for its products and, therefore, increased its capacity utilisation.

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c) **Compare the benefits and drawbacks of BMW investing so much money in the Oxford plant.**

Possible benefits of investing funds in the Oxford plant include:

- The plant can purchase more equipment and machinery in order to speed up the production process
- The plant can employ more staff and/or invest in training to increase productivity
- BMW can purchase more supplies so that it can make better use of its demand

Possible drawbacks of investing funds in the Oxford plant include:

- If a critical failure hits the plant, BMW will feel the effects since it is a major part of the business
- Consumer trends change and so the Mini may eventually fall out of fashion and be less valuable
- Depending on available cash for the year, the business, BMW may have to invest in other lucrative areas of the business

d) **BMW uses TQM in all its business processes. Analyse the potential value that can be drawn from this approach.**

Students should demonstrate understanding of total quality management (TQM).

Possible points to consider (not limited to):

- Businesses using TQM create a culture of constant quality management where every employee the responsibility for their own set of tasks
- All staff will understand the main aim of a company as being quality
- Staff are encouraged to behave like supplier and customer, i.e. when working with another department, they must consider whether it is good for the customer. Goods are produced to the best possible quality.
- TQM can slow down the production process since it requires all staff to give feedback before the good can be released on the market
- A culture of TQM can encourage employees to take great pride in their work and improve motivation
- Employees are more invested in the business as they are all working towards the same goal
- The culture of TQM is attractive to other potential employees who want to work for a company where TQM can also create a brand of high quality that consumers know and trust

**Focus Answers: Chocolate**

**Consider the world demand for chocolate and evaluate the effects that contingency plans can have on chocolate-product manufacturers.**

Students should consider the positive and negative effects that contingency plans can have on product manufacturers.

Possible points to consider:

- These plans are for emergency situations only, but no business truly knows when a crisis situation until it has been in one. Therefore, contingency plans do not necessarily prevent a crisis.
- Contingency plans depend on the ability to forecast economic problems, which is difficult to predict accurately.
- Plans are complex to put together, especially when it comes to testing and implementation.
- Any plan is better than no plan
- Relying on a contingency plan is unhealthy for businesses; it would be better to have a supplier, or more than one production line, in order to better react to changes in demand.

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