Factors of Production, Scarcity, Choice and Opportunity Cost

Revision Blast
<table>
<thead>
<tr>
<th>Factors of production</th>
<th>Candidates should be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• identify and understand examples of the four factors of production (land, labour, capital and enterprise).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scarcity, choice and opportunity cost</th>
<th>Candidates should be able to:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• understand what is meant by the basic economic problem;</td>
</tr>
<tr>
<td></td>
<td>• understand why and how choices are made;</td>
</tr>
<tr>
<td></td>
<td>• apply the concept of opportunity cost to all economic decision-makers;</td>
</tr>
<tr>
<td></td>
<td>• show an appreciation of how resources are allocated by individuals, firms and governments.</td>
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</table>
The Basic Economic Problem

Resources are scarce. We have only got so much.

We have INFINITE WANTS.

The Basic Economic Problem is that resources are scarce but wants are infinite.

As a result resources need to be allocated and choices made. An economy is the way in which a country decides what to produce, how much and who gets it.
Factors of Production

- The resources used to produce goods and services are limited. These resources are known as **Factors of Production**

![Diagram of factors of production]

- Land
- Labour
- Capital
- Enterprise

**Factors Of Production** – the resources we have available to produce goods and services
• **Capital, Enterprise, Land and Labour**

• *Human Capital* - not all labour is of the same quality when people have more human capital they are likely to be more productive

• *Entrepreneur – Enterprise* is having ideas and taking risks in setting up or running a business. An *entrepreneurs* reward is *profit*. They are really important

• Investment in *capital* or *human capital* should increase *productivity*
How and why choices are made...

• Because of the basic economic problem we have to make choices. What to produce, how to produce, who gets it.

• Resources have to be allocated
How resources are allocated

• **Market Economy** – Resources are allocated through the price mechanism.

• **Demand and Supply** – consumers decide what they want to buy and producers use resources in order to supply it.

• **Mixed Economy** – Like the above but in addition the government will allocate resources to providing particular services such as education and health.
Opportunity Cost

• Choices involve and economic cost
• Opportunity Cost - the next best alternative foregone (given up)
• Eg the opportunity cost spending £2.50 on a hot meal this lunch is I could have spent this on a sandwich and crisps (the next best alternative)
Possible Examination Questions

• Mr Payne owns a small car manufacturer. His factory employs 50 people and uses machinery to make the cars. Describe how each of the four factors of production are used to make the cars. (6 marks)

• Opportunity cost is very important to the government. Use examples to explain what is meant by opportunity cost. (5 marks)

• Explain two ways by which resources are allocated in a mixed economy. (4 marks)
Approaches to the economic problem

Candidates should be able to:

- understand the meaning of primary, secondary and tertiary sectors;
- identify and explain the key features of market and mixed economies;
- identify and explain the key differences between public and private enterprises;
- understand the meaning of specialisation;
- evaluate the costs and benefits of specialisation;

- explain how and why individuals, firms and countries specialise;
- appreciate the use of money as a means of deferred payment, store of value, a unit of account and a medium of exchange;
- explain and evaluate the costs and benefits of individuals/firms specialising.
Primary, Secondary, Tertiary Sectors

- Business Activity can be classified into three sectors
- **PRIMARY** – where raw materials are extracted from their natural state
- **SECONDARY** – Where finished goods are manufactured. All of manufacturing, processing, and construction lies within the secondary sector.
- **TERTIARY** – This is the service sector
- **DEINDUSTRIALISATION** – Refers to the movement from the secondary to the tertiary sector that can be seen in many developed economies
Public and Private Sector

• **Public Sector** – Organisations which are owned and run by the government. They don’t usually aim to make a profit. (eg schools and NHS)

• **Private Sector** – The sector of the economy where firms are owned and run by private individuals and groups – their main aim is to make a profit. (eg Tesco and Sony)
MARKET ECONOMY - This is where private individuals make decisions about what to produce in. Most businesses are owned and run in the PRIVATE SECTOR. Ability to pay decides who gets what.

• **ADVANTAGES**
  • Choice
  • Competition brings low prices
  • More Incentive (innovate, work hard etc)

• **DISADVANTAGES**
  • Increased Inequality – it may not be fair
  • Social Costs – guns, drugs pollution
  • Monopolies may emerge - Microsoft
COMMAND / PLANNED ECONOMY - This is where all businesses are owned and controlled by the government. All businesses are in the PUBLIC SECTOR

- **ADVANTAGES**
  - Increased equality
  - No waste and duplication of goods

- **DISADVANTAGES**
  - Lack of choice
  - Less incentive to innovate
  - Inefficient
  - Less incentive to work hard
MIXED ECONOMY - This combines both systems. Some business activity takes place in the private sector and other activity takes place in the public sector. Private businesses produce and sell most things but the government provides some key goods.
Specialisation

• This is where businesses, individuals and whole economies concentrate on making just a few products.
• It explain why businesses today are so efficient and can produce so much

• DIVISION OF LABOUR – this takes specialisation a step further.
### The Benefits of Specialisation

<table>
<thead>
<tr>
<th>Benefits to the firm</th>
<th>Benefits to the workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers become quicker at producing goods (more productive)</td>
<td>Specialised workers tend to get higher pay</td>
</tr>
<tr>
<td>Because of increased productivity, production costs become cheaper per good</td>
<td>Worker’s specific skills will be improved</td>
</tr>
<tr>
<td>(lower average costs)</td>
<td></td>
</tr>
<tr>
<td>Production levels are increased</td>
<td>More motivation from job satisfaction</td>
</tr>
</tbody>
</table>

For a country like the UK specialisation should be of benefit because we can produce the products we are best at producing and living standards and GDP should be higher as a result.
## The Costs of Specialisation

<table>
<thead>
<tr>
<th>Costs to the firm</th>
<th>Costs to the workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater costs of training workers</td>
<td>Boredom for the worker as they do the same job every day</td>
</tr>
<tr>
<td>Quality may suffer if workers become bored by the lack of variety in their work</td>
<td>Worker’s skills may suffer as they are only doing one job</td>
</tr>
<tr>
<td>More expensive workers</td>
<td>Workers may eventually be replaced by machinery</td>
</tr>
</tbody>
</table>

If there is over specialisation, the economy may be vulnerable if global demand falls for a product. Local producers may also suffer as cheaper imports destroy their market.
Specialisation – Other Issues

• **Bulk Buying** – benefit from purchasing economies of scale

• **Risk** - all eggs in one basket (opposite of diversification)

• **Inflexibility** – specialist workers may not be able to switch between jobs

• **Be Careful** – yes specialist workers may command higher wages BUT specialisation associated with the division of labour may take skill out of a job so wages may even be lower
Money

- **Money** is any object or record, that is generally accepted as *payment* for *goods and services*.

- Without it we would have to rely on barter.
- Barter is inefficient as it requires a double coincidence of wants.
Functions of Money

- **Medium of Exchange** – It must be generally accepted as a means of payment by all parties so goods and services can be exchanged. When we buy a pizza we are handing over a piece of paper for it.

- **Unit of Account (Measure of Value)** – It must provide a common unit for measuring the value of every good and service. If I say that magazine costs £1 you know what that means.

- **Store of Value** – It must retain its value over time. Some goods like corn wouldn’t make a very good money as they would spoil

- **Means of Deferred Payment** – A way of settling debts. ie with money we can take out loans or agree to pay at a future point
Possible Exam Questions

• Give an example of a job in the primary, secondary and tertiary sector of the economy (3 marks)
• Use the data to explain what is meant by deindustrialisation (2 marks)
• Explain the key differences between a private and public sector enterprise (4 marks)
• What type of economic system does the UK have? Explain your answer (4 marks)
• Explain two benefits of the UK being a mixed economy (4 marks)
Possible Exam Questions

• Examine the costs and benefits to workers in a car production plant of specialisation
• Examine the costs and benefits to a car manufacturer of specialisation
• Examine the costs and benefits to the UK economy of specialisation (8 marks)
• What is money and why is it important? (6 marks)
• For money to be useful it must have a variety of functions. State and explain two functions of money (4 marks)
### 3.1.2 What are competitive markets?

This section of the specification considers how competitive markets work. Candidates will learn how the forces of demand and supply determine price in competitive markets.

<table>
<thead>
<tr>
<th>Markets</th>
<th>Candidates should be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>explain what is meant by a competitive market;</td>
</tr>
<tr>
<td></td>
<td>understand the implications for business(es) of operating in competitive markets;</td>
</tr>
<tr>
<td></td>
<td>explain the meaning of monopoly and monopoly power;</td>
</tr>
<tr>
<td></td>
<td>describe and evaluate the causes and consequences of monopoly power;</td>
</tr>
<tr>
<td></td>
<td>explain and evaluate the role of government in promoting competition.</td>
</tr>
</tbody>
</table>
What is a Competitive Market?

• The degree to which a market or industry can be described as competitive depends in part on how many suppliers are seeking the demand of consumers and the ease with which new businesses can enter and exit a particular market in the long run.

• The spectrum of competition ranges from highly competitive markets where there are many sellers, each of whom has little or no control over the market price - to a situation of pure monopoly where a market or an industry is dominated by one single supplier who enjoys considerable discretion in setting prices, unless subject to some form of direct regulation by the government.
The amount of competition in an industry is very important in determining things like:

- **Price Levels** – More competition should lead to lower prices
- **Quantity Produced** – Output should be higher in competitive industries
- **Quality & Value for Money** – If producers know people might buy from someone else they will probably try harder
## Spectrum Of Competition

<table>
<thead>
<tr>
<th>COMPETITIVE</th>
<th>OLIGOPOLY</th>
<th>MONOPOLY. Exists when there is only one supplier in an industry. This gives the business power over the price it charges.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lots of firms selling similar products</td>
<td>• A few firms dominate a market</td>
<td>• One firm in an industry. (25% market share)</td>
</tr>
<tr>
<td>• Many buyers.</td>
<td>• High barriers to entry</td>
<td>• High Barriers to entry prevent new firms from entering.</td>
</tr>
<tr>
<td>• Lots of competition on price</td>
<td>• Interdependence may mean firms do not compete strongly on price</td>
<td>• Price maker, can choose the price charged or the output level.</td>
</tr>
<tr>
<td>• Free entry and exit – no barriers to entry.</td>
<td>• Strong non price competition (branding, advertising etc)</td>
<td>• May use power to generate maximum profit possible.</td>
</tr>
<tr>
<td>• Profit is competed down by strong competition</td>
<td>• An incentive for firms to collude and make agreements about price etc (illegal!)</td>
<td>• Firms make abnormal (supernormal) profit.</td>
</tr>
</tbody>
</table>

• May opt for a quiet life – costs not minimised
Implications For Business

• Less power to raise price
• May have to work harder to win customers as they may go elsewhere
• Will need to keep costs low, be more efficient and keep productivity high (this is good)
Winners and Losers

• Firms that are able to supply goods and services people want at a price they are prepared to pay will thrive

• Firms that fail to satisfy customers sufficiently will eventually fail
Causes Of Monopoly Power

• **Natural Monopoly** – In some industries a monopoly is the most efficient way to provide a good or service eg Water (economies of scale may be very high)

• **Barriers to Entry**

• **Efficiency, Innovation and Excellence** – firms may achieve a monopoly position by being good at what they do and meeting customer wants and needs well

• **Patents**
Evaluate the Causes of Monopoly Power

• **Natural Monopoly** – may be necessary. Still might be inefficient or exploit consumer. (approaches – state ownership, regulation, inject competition)

• **Patents** – may be necessary to encourage and reward R&D but may give a firm a legal monopoly which it can exploit through high prices

• **Efficiency** – Monopoly power and high profits act as an incentive and in this way are positive BUT firms may abuse powerful position when acquired
Explain and Evaluate the Role of Government in Promoting Competition

“The Government is committed to promoting competition in the economy to improve the UK’s productivity performance and to make markets work well for consumers so as to achieve prosperity for all.”
Key Bodies

• DTI – Department for Trade and Industry
• OFT – Office of Fair Trading
• Competition Commission

• The government aims to act as a referee to ensure that markets work well and competition is fair
Competition Policy - What they do

• **Regulation** – Set rules to prevent firms abusing market power eg firms are not allowed to fix prices

• **Investigate Markets** – That may not be working well for consumers (they have a range of enforcement tools)

• **Regulation of Natural Monopolies** – regulate privatised utility companies like water companies

• **Investigate Mergers** – to see if they are in the public interest
Possible Examination Questions

• Explain two benefits of competitive markets (4 marks)
• Examine the implications to business of operating in a competitive market (6 marks)
• Explain two causes of monopoly power (4 marks)
• Monopoly is bad for the consumer, discuss (6 marks)
• Discuss the need for competition policy (8 marks)
• Explain the role of government in promoting competition (5 marks)
• Evaluate the role of government in promoting competition (8 marks)
Demand & Supply

Revision - The Basics!
**STARTER** – What do the two mnemonics stand for?

**Conditions of Demand**
Factors that shift the demand curve

**Conditions of Supply**
Factors that shift the supply curve

PASIFIC

PINTS WC
Supply and Demand

Prices in a market are determined by the interaction of Supply and Demand.

Demand

Demand is the willingness to buy something backed by the ability to pay for it.

The Law of Demand

As price falls quantity demanded rises.
Shifts in Demand

A change in price will lead to a movement along a demand curve. If something else changes the whole curve could shift.

**Increase in Demand**

**Decrease in Demand**
The Conditions of Demand

Five major factors that affect demand are:

- Population
- Income
- The Price of Other Goods (substitutes and complements)
- Taste and Fashion
- Advertising
PASIFIC

Supply

As the price of a product rises, more producers will be able to cover their costs so the quantity supplied will rise.

Shifts in Supply - If a factor other than price changes, the supply curve can shift.

Increase in Supply

Decrease in Supply
The Conditions of Supply:

Factors that cause the supply curve to shift include:

- The Weather
- Indirect Taxation such as VAT (e.g., Tax on petrol up by 10p → Decrease in Supply)
- Technology
- Costs of Production
PINTSWC

- PINTSWC – Productivity, Indirect Taxes, Number of firms, Technology, Subsidies, Weather, Cost of production
Supply & Demand

![Graph showing supply and demand with equilibrium point at P* and Q*]
Ethanol

As a green fuel, ethanol is a good idea, but the sort that America produces is bad. America’s use of corn (maize) to make ethanol biofuel, which can then be blended with petrol, has already driven up the price of corn, and since corn is used to feed animals the price of meat rises too. The food supply is being diverted to feed America’s hungry cars. Production is growing by 25% a year because the government pays a subsidy for domestic production. As a result, refineries are popping up all over the Midwest of America. But corn-based ethanol, the sort produced in America, is neither cheap nor green. It requires almost as much energy to produce as it releases when it is burned. The subsidies on it cost taxpayers somewhere between $5.5 billion and $7.3 billion a year. The US policy of subsidies is in sharp contrast to the European policy of congestion charges and road pricing.

Adapted from The Economist April 2007

Questions

1.) Illustrate and explain why the price of corn has been driven up (6 marks)

2.) Illustrate and explain why the price of meat is rising as a result (6 marks)
Comment

This command is frequently used. Candidates preparing for this exam should be familiar with the instruction, ‘illustrate and explain.’ Despite this many candidates chose not to answer the question or if they did so, failed to include a diagram in their answer.

Model answer

Strong answers showed the demand curve shifting to the right. Some candidates showed the supply curve as relatively or perfectly inelastic, highlighting the difficulty of increasing supply in the short run.

Explanations demonstrated understanding that rising demand resulting from maize being used for the production of bio-fuel would lead to an increase in market prices.

Typical answer

Candidates frequently offered an explanation which was worthy of some reward. But clear diagrams supporting cogent explanations were not typical. Typical errors included diagrams showing supply sloping downwards. *Ceteris paribus* was frequently ignored and candidates often assumed that the willingness to supply was determined by the demand for goods.
<table>
<thead>
<tr>
<th>Question Number</th>
<th>Indicative content</th>
</tr>
</thead>
<tbody>
<tr>
<td>2(a)</td>
<td>Knowledge 3, Application 3 marks</td>
</tr>
</tbody>
</table>

Expect to see a D&S diagram showing the market for corn. It is likely that the response will centre around there being an increasing need for corn for Ethanol production. This causes the demand curve to shift to the right leading to a higher equilibrium price of corn and greater quantity traded.

Diagram is correct and properly presented with a clear explanation. \(5 - 6 \text{ marks}\)

Diagram is correct but explanation is not OR vice versa. Neither diagram or explanation is spot on but there is some merit. \(3 - 4 \text{ marks}\)

Some merit but vague and/or inaccurate. \(1 - 2 \text{ marks}\)

Answers lacking a diagram OR an explanation, maximum of 3 marks. For a diagram only or an explanation only they must be perfect and clear to gain 3 marks. Otherwise 2 marks or less, dependent upon quality.
<table>
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<tr>
<th>Demand</th>
<th>Candidates should be able to:</th>
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<tbody>
<tr>
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<td>• explain what is meant by demand;</td>
</tr>
<tr>
<td></td>
<td>• construct an individual demand curve and a market demand curve from consumer data;</td>
</tr>
<tr>
<td></td>
<td>• explain shifts of, and movements along, the demand curve;</td>
</tr>
<tr>
<td></td>
<td>• understand the meaning of price elasticity of demand;</td>
</tr>
<tr>
<td></td>
<td>• understand and construct graphs to illustrate price elasticity of demand;</td>
</tr>
<tr>
<td></td>
<td>• understand the implications of price elasticity of demand for revenue.</td>
</tr>
</tbody>
</table>

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<td></td>
<td>• explain what is meant by supply;</td>
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<tr>
<td></td>
<td>• construct an individual firm's supply curve and a market supply curve from production data;</td>
</tr>
<tr>
<td></td>
<td>• explain shifts of, and movements along, the supply curve;</td>
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<td></td>
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<tr>
<td></td>
<td>• understand and construct graphs to illustrate price elasticity of supply;</td>
</tr>
<tr>
<td></td>
<td>• understand the implications of price elasticity of supply on businesses.</td>
</tr>
</tbody>
</table>
Elasticity of Demand - quick test

• A firm knows the elasticity of demand for its product is \((-0.4)\)

1.) What does this figure mean (4)
2.) Give an example of a good which might have this elasticity figure (1)
3.) Draw a diagram to show what the demand curve might look like (3)
4.) What should the firm do with the price of its product in order to increase revenue? (1)
Price Elasticity

• Measures the responsiveness of demand to a change in price

• **Price Elastic** – Change in price leads to a more than proportionate change in quantity demanded.

• **Price Inelastic** – Change in price leads to a less than proportionate change in quantity demanded.
Price Elasticity of Demand

- Measures the responsiveness of demand to a change in price. (how much demand changes if price changes)

- \( \text{PED} = \frac{\% \text{ change in QD}}{\% \text{ change in Price}} \)
• 0 to (-) 1  Demand is Price Inelastic

• (-) 1 Unitary

• (-) 1 to (-) Infinity  Demand is Price Elastic
Factors Influencing Price Elasticity

- Number and closeness of substitutes
- Luxury or Necessity
- Proportion of Income spent on a product
- Time Period
Price Elasticity & Revenue

• If demand is **Price Elastic** – a rise in price will lead to a **fall in revenue** as demand will fall more than proportionately

• If demand is **Price Inelastic** – a rise in price will lead to a **rise in revenue** as demand will fall less than proportionately
Interpreting Elasticity

• Petrol has a price elasticity of demand of \(-0.25\) what does this mean?

This means the demand for petrol is price inelastic. A 1% change in price will lead to a smaller 0.25% change in demand.
Price Elasticity of Supply

• Measures the responsiveness of supply to a change in price

• PES = \[
\frac{\% \text{ change in QS}}{\% \text{ change in Price}}\]
• 0 to 1  Supply is **Price Inelastic**

• 1 – Supply has **Unitary Elasticity**

• 1 to Infinity – Supply is **Price Elastic**
Factors that influence PES

• **Time** – supply is fixed (perfectly inelastic) in most industries in the very short term

• **Level of Spare Capacity** – Businesses or industries where there is spare capacity can more easily expand production

• **Production Lags** – In some industries like agriculture it can take a long time to expand production as crops need to be planted and grown.

• **Substitutability of Factors of Production** - If a firm can easily move the factors of production it uses between different product lines supply will be more elastic
Elasticity of Supply

A rational producer will want to increase their output when they see price rising in their market. However, the extent to which they can increase the quantity supplied depends upon the elasticity, or flexibility, of the good.

**Relatively easy to increase supply: Elastic Supply**

Hairdressers, could increase production easily if the market price goes up

**Relatively difficult to increase supply: Inelastic supply**

Coffee farmers might take years to increase production
Price Elasticity of Demand – Possible Exam Questions

• Explain what is meant by PED (2)
• Old price £2 new price £3. Old demand 60 new demand 20. Calculate the PED. (4)
• The demand for cigarettes is –(0.4) what does this mean. (4)
• Discuss the factors that influence the PED of cigarettes. (6)
• Explain two reasons why the government taxes petrol so highly. (4)
Price Elasticity of Supply – Possible Exam Questions

• Explain what is meant by PES (2)
• Old price £3 new price £4. Old supply 100 new supply 200. Calculate the PES. (4)
• Explain what your result means (4)
• Discuss the factors that might influence the PES for a product. (6)
• Two businesses. Farmer Palmer grows cactuses to make Tequila.(they take seven years to grow) Payne’s Pots makes plant pots. He has lots of spare capacity and it doesn’t take long to train staff.
• Which is likely to have price elastic supply and which is likely to have price inelastic supply? (2)
• Draw the likely supply curves for these products. (2)
• Explain why if prices were to double Payne’s Pots would be more able to expand production (5)
### 3.1.3 How do firms operate in competitive markets?

This section of the specification covers the issues firms face: costs, revenues, profits, growth and productivity. It considers the impact that such factors have upon a business operating in a competitive market. Candidates will also learn how and why labour is rewarded.

<table>
<thead>
<tr>
<th>Costs, revenues and profit</th>
<th>Candidates should be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>identify business objectives, including profit;</td>
</tr>
<tr>
<td></td>
<td>identify and calculate total and average, fixed and variable costs;</td>
</tr>
<tr>
<td></td>
<td>identify and calculate total and average revenues;</td>
</tr>
<tr>
<td></td>
<td>identify and calculate profit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Candidates should be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>understand what is meant by productivity;</td>
</tr>
<tr>
<td></td>
<td>explain the difference between production and productivity;</td>
</tr>
<tr>
<td></td>
<td>explain how productivity may be increased by the specialisation of labour, the substitution of capital and worker involvement;</td>
</tr>
<tr>
<td></td>
<td>explain and assess the impact of competitive forces on the need for increased productivity.</td>
</tr>
</tbody>
</table>
Business Objectives – A target that a business sets itself.

- To make a Profit
- To Breakeven
- Increase Market Share
- To Survive
- To Increase Sales
- To Provide a Service
Costs, Revenue, Profit

• Output – the number of goods or services produced by a firm
• Fixed Costs – Costs that do not vary with output eg rent
• Variable Costs – Costs that vary directly with output eg raw materials
• Total Costs = FC + VC
• Revenue – income earned from sales calculated by P x Q
• Profit = Revenue minus Total Costs
• Average Costs = Total Costs / Output
Ben and James own a cookie shop. They make 1000 cookies per week. They have the following costs:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rent</strong></td>
<td><strong>£1000 per week</strong></td>
</tr>
<tr>
<td><strong>Salaries</strong></td>
<td><strong>£1000 per week</strong></td>
</tr>
<tr>
<td><strong>Choc Chips</strong></td>
<td><strong>25p per cookie</strong></td>
</tr>
<tr>
<td><strong>Cookie Mix</strong></td>
<td><strong>50p per cookie</strong></td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td><strong>£25 per 1000 cookies</strong></td>
</tr>
<tr>
<td><strong>Interest on Loan</strong></td>
<td><strong>£50 per week</strong></td>
</tr>
</tbody>
</table>

- State 2 Fixed Costs
- State 2 Variable Costs
- Calculate the Fixed Costs
- Calculate the Variable Costs
- Calculate Total Costs
- Calculate Average Costs

Ben and James decide to sell their cookies for £2 a cookie.

- If they sell 1000 cookies a week calculate their total revenue made in one week
- Calculate their profit/loss
Production & Productivity

• **Production** – The process of combining scarce resources to make an output

• **Productivity** – output per worker for a period of time

• **Calculating productivity** – A car factory employs 500 workers and produces 12,000 cars per year. What is the productivity of each worker for one year?
Specialisation & Productivity

• By specialising in one product, a firm or individual can become better at producing that product (they may also specialise in what they are best at anyway) so productivity should rise.
Increasing Productivity

• Be more capital intensive (substitute capital for labour) – if a business uses more machinery productivity may rise as machinery can produce more and can run continuously

• Workers Specialising – productivity may increase through increased specialisation

• Training – productivity may increase if workers human capital is increased through training

• Efficiency – management, ways of working etc
Competitive Forces and Productivity

• Businesses that operate in competitive markets need to increase productivity in order to remain competitive..........

• **Lower Average Costs** – Increased productivity means a business will produce more so average costs should fall

• **More competitive prices** – If average costs are lower a business can offer a more competitive price

• **Higher Profits** – As average costs fall a business will make a higher profit margin (if prices stay the same). It may use some of this profit to reinvest in new machinery which may increase productivity further.
Possible Exam Questions

• Rosie works 25 hours a week at a cake shop, “Occasions” for which she is paid the minimum wage. Occasions is a private business. Rosie enjoys her job and works very hard. In one day she can make 5 cakes. Janet also works in occasions, she can make seven cakes a day.

• State 2 objectives a firm like Occasions might have (2 marks)
• Using the info above, explain what is meant by production and productivity (4 marks)
• With reference to the info above explain how productivity may be increased by specialisation (6 marks)
• Occasions operate in a competitive market. To what extent will operating in a competitive market mean that Occasions needs to increase productivity in order to compete (8 marks)
Growth of firms

Candidates should be able to:

- understand and explain the role and operation of the product market;
- evaluate the benefits and limitations of the product market;
- understand how and why firms grow in size;
- explain internal and external economies and diseconomies of scale;
- understand the implications and effects of internal and external economies of scale;
- discuss the costs and benefits of growth for a business;
- explain and assess the gains from competitive markets for firms, consumers, etc.
Growth of Firms
Methods of Growth

• **Internal** – Organic Growth

• **External** – Inorganic Growth
External Growth - Integration

- There are two main methods of external expansion (Integration)

1. A Merger – This is where 2 firms agree to join together and operate as one firm
2. A Takeover – This is where one firm buys another
**Vertical Integration**

- Backwards
  - join with a supplier
  - eg......

- Forwards
  - join with a firm in a later stage of production
  - eg......

**Horizontal Integration**

- 2 competitors at the same stage join
  - eg......

**Lateral Integration**

- Join with a firm at the same stage of a similar industry
  - eg......

**Conglomerate**

- 2 firms with no obvious link join
  - eg......
Economies of Scale

As a firm grows its output will rise and the Average Cost of Production will fall. This reduction in average or unit costs as scale of production is increased are known as **Economies of Scale**

**Average Cost**

(cost of producing each item)

---

**Size of Firm** (Output)
Definitions

• **Internal Economies of Scale** – When one firm grows in size and so benefits from lower average costs

• **External Economies of Scale** – When a whole industry grows in size, so a firm within that industry benefits from lower average costs. Examples – improved transport and communication links, local training and education focused on that industry

• **Diseconomies of Scale** – Occurs when a firm gets too large and average costs start to rise. Examples – loss of control, hard to monitor workers, more difficult to coordinate, lack of motivation, poor communication
Types of Internal Economies of Scale

There are six main Economies of Scale

- Purchasing
- Marketing
- Managerial
- Financial
- Technical
- Risk Bearing

- Really Fun Mums Try Making Pies
Ode to Economies Of Scale

When Average costs fall
  The big boss has a ball
Economies of scale cut the cost
To Competition sales are not lost
Economies can be financial
  Or may be managerial
  Some called risk bearing,
  Sort of rhyme with marketing
Technical economies are about how to make
  But all this poetry is giving me a headache
Costs and Benefits of Growth (by integration)

**BENEFITS**
- Increased profits
- Increased market share
- New ideas gained from other business (if merger)
- Synergy
- No competition from other business (if merger)
- **Economies of Scale**
- Cost Savings – eg may not need all workers

**COSTS**
- Two sets of managers may not agree
- Merged businesses may have different objectives /priorities
- Costs money to merge / takeover
- Less choice for customers?
- Higher prices?
- Possible job losses
- **Possible diseconomies of scale**
Possible Exam Questions

• Payne’s Pots – 1000 ceramic items – total costs £10,000
• Josh’s Jugs – 500 ceramic items – total costs £7,500
• Explain which business benefits most from economies of scale (4 marks)
• Examine the economies of scale that are likely to be obtained in this case (6 marks)
• Discuss the economies of scale that are enjoyed by Tesco. Why do they have an advantage over your local corner shop? (8 marks)
• Despite economies of scale, why do small businesses like the local newsagent or grocer still survive? (6 marks)
• In 2003 Morrisons purchased a rival supermarket chain Safeway. Examine the likely costs and benefits of this merger. (8 marks)
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<td>markets for firms, consumers, etc.</td>
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</table>
• **The Product Market** – the market for goods and services – eg the market for....or.....

• **The Labour Market** – the market for labour – it consists of available jobs and the number of people who are available for work
The Role of Firms in the Product Market

• Firms supply goods and services to satisfy customer wants and needs so as to make a profit.
Benefits

• Supply and demand (market forces) work to ensure that resources are allocated in a way that reflects consumer demand (the consumer is sovereign) – prices and profits act as a signal

• Eg – if people want to holiday in Kettering (demand rises). The price of holidays in Kettering should rise. Firms will see that providing such holidays will enable them to make more profit and so will supply more.

• Consumers should benefit as more products that they want are supplied
Limitations

• In order to supply more products firms will need more resources (land, labour, capital). It may not be possible to get the resources needed to expand supply.
• Some factors of production are said to be immobile – may take time to expand production as may need to invest. May not be able to find skilled labour
• Barriers to entry may limit competition
• May get undesirable consequences – eg pollution etc
Economies of Scale

As a firm grows its output will rise and the Average Cost of Production will fall. This reduction in average or unit costs as scale of production is increased are known as Economies of Scale.

**Average Cost**
(cost of producing each item)

**Size of Firm** (Output)

**Economies of Scale**

**Diseconomies of Scale**
INCREASED DIMENSIONS

Nuclear Reactor

Indivisible capital

Research + Development

TECHNICAL

Law of Averages

Diversity of Market of Products

Egg Basket

Risk Bearing

ECONOMIES OF SCALE

Financial

Lower Interest Rates

Very Secure

Greater Security

Huge Firm

More Sources of Finance

Marketing

Specialist Buyers

Specialist Sales Staff

Lower Transport Costs

Buying in Bulk

Sainsburys

Eddie Stobart

Sales Team

$2.40 for 12 tins

30p per 6in
Definitions

- **Internal Economies of Scale** – When one firm grows in size and so benefits from lower average costs.

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• Technical
• Risk Bearing

• Really Fun Mums Try Making Pies
Question – Discuss the extent to which car manufacturers benefit from economies of scale (8 marks)

• Command word discuss
• Always discuss in context of cars - Which ones are likely to be particularly important and why?
• Are they likely to benefit from economies of scale? Are economies of scale particularly important in car manufacturing and why? Why might some smaller car makers be able to compete?
• You need to have a conclusion which flows from your analysis
Target: To analyse and evaluate the importance of economies of scale.

Level 4 (7-8 marks)
Candidate makes a judgement based on reasoned argument which is applied well to car firms. Such firms could gain from technical economies using automation, robots, etc; purchasing economies for all sorts of components; marketing economies; financial economies; managerial economies; and risk-bearing economies with different models and markets. Reward candidates for discussion of possible diseconomies of scale.

Level 3 (5-6 marks)
Candidate analyses how economies of scale are relevant to car manufacturers. Maximum of 6 marks for good analysis without application.

Level 2 (3-4 marks)
Candidate attempts to apply one or two economies of scale.

Level 1 (1-2 marks)
Candidate identifies one or two economies of scale, or identifies a fall in average costs.
Report on the Components taken in June 2008

(e) There was a wide range of answers to this part of the question. The weakest candidates failed to name any economies of scale and gave vague advantages to large firms. A lot mentioned lower costs, while failing to specify lower average costs. Better answers could explain various internal economies and some, in addition, pointed out the danger of diseconomies if the firms became too large. However, only the best answers applied economies to the car manufacturers in the question, e.g. buying brakes/tyres in bulk, risk-bearing by having different models, etc. Centres are reminded that rehearsed standard answers may not earn all the available marks.
Candidates should be able to:

- understand and explain the role and operation of the labour market;
- identify the differences between gross and net, and real and nominal income;
- understand wage determination using simple demand and supply analysis;
- explain and evaluate wage differentials within and between occupations;
- explain and evaluate the advantages and disadvantages of a national minimum wage.
The Labour Market

• Is the interaction between workers and employers.
• The market for labour is made up of the supply of labour (workers) and the demand for labour (from employers).
• The demand for labour is said to be a derived demand. This means the demand for labour is caused by the demand for the product, so if the demand for the product increases, demand for labour will also increase.
In a free market economy, wages are determined by the interaction of the demand for labour and the supply of labour. Wage differentials (differences in wages) between jobs and locations occur because of differences in the levels of demand for/supply of labour.
Rise in demand leads to higher wages
Reasons for differences in wages within and between occupations:

- **Differences in productivity of workers** – higher productivity = higher wages
- **Trade Union Power** – strong unions may negotiate higher wages for workers
- **Differences in final demand for product** – earnings are higher in booming industries
- **Compensating** – higher pay may be a rewards for risk taking in certain jobs
- **Different regional costs of living**
- **Elasticity of supply of labour** – The more inelastic the supply the higher the wage – elasticity is affected by the skills education and qualifications needed to do a job
- **Discrimination 😞**
## Gross, Net, Real and Nominal Income

<table>
<thead>
<tr>
<th>Key Term</th>
<th>Definition/Explanation</th>
</tr>
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<tbody>
<tr>
<td>Gross Income</td>
<td>Total income before deductions such as taxes are removed.</td>
</tr>
<tr>
<td>Net Income</td>
<td>Total income after deductions such as taxes are removed</td>
</tr>
<tr>
<td>Nominal Income</td>
<td>Money income, not taking into account inflation</td>
</tr>
<tr>
<td>Real Income</td>
<td>Money income adjusted to take account of inflation. For example if inflation has been 2% but my money or nominal income is the same I have actually had a pay cut in real terms</td>
</tr>
</tbody>
</table>
The Minimum Wage

• A minimum wage works by guaranteeing that all workers receive at least a minimum wage rate

• The aim of this is to avoid the exploitation of workers and to provide a financial incentive for people to work

• A minimum wage will only affect those industries where free market wages would fall below the level set. These are most likely to be jobs involving unskilled workers
• A minimum wage is effectively a minimum price for labour
• In the diagram, the free market wage is W0. However the minimum wage is set above this at W1
• There is an excess supply of labour in this diagram
<table>
<thead>
<tr>
<th>Workers</th>
<th>Potential Gains</th>
<th>Potential Losses</th>
</tr>
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</table>
|              | Low paid workers achieve a higher wage, thus reducing relative poverty and increasing living standards | The worker may lose his/her job if the employer responds to the minimum wage by laying off workers (E1-E2 above)  
Even if the worker earns a higher wage, they will be no better off in real terms if minimum wages lead to higher prices and inflation |
| Firms        | **There may be limited impact if:**  
Firms already pay above min wage  
Firms employ few workers  
Firms can easily pass on wage increase to consumers in the form of higher prices (where demand for the product is price elastic)  
If workers have higher incomes as a result of the minimum wage, there may be a rise in demand for the firms goods | Higher costs lead to lower profits and less funds for re-investment  
May have to compensate by putting prices up- this will make them less competitive compared to foreign competitors |
| Consumers    | Some consumers in low paid jobs have higher disposable income | May face higher prices as firms pass on wage increases  
May be less new product development/reduced quality product because firms have less profit to re-invest |
Important

• Read the question carefully!
• Is the question asking you to look at the impact upon workers, business or the economy?
Arguments For

- Higher tax revenue received from the increased earnings of those in low paid jobs
- Increased incentive to work so benefits may be reduced and unemployment may fall
- Income is more fairly distributed (equity)
- Poverty is reduced

Arguments Against

- Unemployment may rise as it becomes more expensive to employ workers
- Other workers may demand higher wages to maintain differentials
- Higher wage costs may lead to rising inflation
- Some firms may cut back on investment in training
- Does not reflect regional differences in the cost of living
Possible Exam Questions

• Discuss the reasons why doctors earn more than nurses (8 marks)
• Should pop singers earn more than nurses (8 marks)
• Explain 2 reasons why Doctors earn more than teachers (6 marks)
• Do you agree that the minimum wage is beneficial to workers? Give reasons for your answer (8 marks)
• Discuss the extent to which a rise in the minimum wage is bad for Chloe’s Café (8 marks)