

Business Economics Revision

Note: Exam generally split into three. **Macro-environment (MA)**, **Microenvironment (MI)** and **Business Strategy (BS)**.

PLEASE MAKE COMMENTS ON CORRECTIONS, ADDITIONS AND POSSIBLY ATTEMPT SOME ESSAY PLANS. THANKS

2016

SECTION A

1. Define the production possibility frontier and explain how it can be used to illustrate the concept of opportunity cost. (30 marks) (MI)

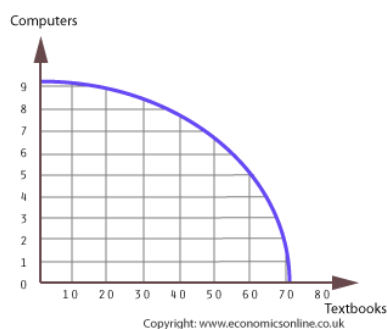
*-When does **opportunity cost** arise:*

The question of opportunity costs arises when a business has to decide where to allocate their resources. Opportunity cost discusses the loss of benefits of an alternative when the other option is chosen. The PPC helps illustrate a simple but powerful way of explaining the concept of opportunity cost.

*-What is a **PPC or PPF** and what does it show*

PPC or PPF is a graphical representation of the possible combination of two different goods. The curve shows the maximum possible output combinations of two goods or services an economy can achieve when all resources are fully and efficiently employed.

*-Draw a **graph** that represents two products*



*-Interpret the **graph**.*

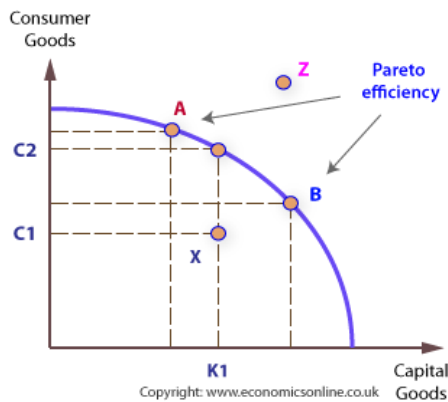
-PPF can show opportunity cost of producing one good against the other.

-Can also show the opportunity cost of a change in the curve.

*-What is the **Pareto efficiency**?*

The Pareto efficiency is an economic state where resources in an organization are allocated in the most efficient manner. This is usually a point that lies anywhere on the production possibility curve.

-Draw a graph to show **pareto efficiency**



On this graph, any point inside the curve like point X, is regarded as inefficient because the output can be greater.

Any point outside the curve is regarded to be impossible with the current economy's scarce resources. However, that could be used to set objectives for the future. Pareto efficiency can also be used to show how -the best way to make a product better is by making another one worse off.

-problems with pareto efficiency:

The Pareto efficiency is unlikely to be achieved in the real world due to imperfections and rigidities.

A typical reason for this is that at all times, not all resources can be utilised at 100%.

-Highlight some of its usefulness to a business.

The Pareto analysis can be used to highlight imperfection and rigidities in an economy. It can be used to set objectives for a business.

-Explanation in terms of Opportunity cost

Economic theory states that given that the resources are limited, the decision to increase one product will result in reduction for another good. **Expand with many examples**

2. Define game theory and explain why it is useful in modelling firm behaviour. (30 Marks) (BS) (148).

-Strategic interdependence:

exists when the actions of one firm will have an effect on the other. Economists try to use game theory to explain strategic interdependence.

-What is Game Theory?

Game theory is widely used in various subjects such as economics, biology, political science, war, logic, psychology and computer science etc.

It is the study of strategies for dealing with competitive scenarios where the action of one party depends and impacts on the other parties.

Original version is **Prisoner's dilemma**.

The original version of game theory is Prisoner's dilemma.

-What is prisoner's dilemma?

(Insert a diagram and explain)

Two prisoners (Luke and Tom) have been arrested for a minor crime in which there's evidence of their guilt. If they are found guilty, they'll be handed a sentence. During the interrogation, the police become suspicious of a greater crime, but in this case he does not have evidence. They are kept in separate rooms so that they are not able to communicate with each other. The two prisoner's have options. If they both confess, they'll receive a medium sentence. However, prisoner 1 is told that, if he confesses and his partner doesn't, he'll get a light sentence (1yr) and his partner will get (10 yrs). This is the same for prisoner 2. However, if they both deny the offense, they both get the normal sentence for the initial crime.

		Tom	
		Confess	Deny
Robin	Confess	3 yr / 3 yr	1 yr / 10 yr
	Deny	10 yr / 1 yr	2 y / 2 y

Copyright: www.economicsonline.co.uk

This dilemma illustrates how their outcome is wholly based on the decision of the other participant. The safest option is to confess and get 3 yrs. If harmony is possible, they can achieve the best outcome which is to both deny and receive the two year sentence.

Types of strategy:

-Maximax: Maximax is where a player would try to attain the best possible benefit available. Here they'll prefer an alternative that provides the best outcome. Maximax is often regarded to be naive. The best scenario for confessing is 1 yr if the other denies. The best scenario for denying is 2 yrs with the other person.

-Maximin: Maximin is a where a player chooses the best of the worst strategy. This is more popular when a player can not rely on the other to make a favourable decision. In regards to the prisoner's dilemma, the worst payoff is denying and receiving (10 yrs). The best payoff is to confess and receive (3 yrs)

-Dominant: Dominant strategy is the best outcome for both parties irrespective of what the other player chooses.

(Sharing is attractive, but is it outweighed by the gains of stealing - but only if the other player does not steal)

-Game theory in relations to a firm's behaviour suggests that firms are unlikely to trust each other even if they work together

-Define **Nash equilibrium**

Nash equilibrium describes the best possible solution for each player in the game theory. When Nash equilibrium is reached, no participant can improve their position. For example, in the prisoner's dilemma, confessing is Nash equilibrium because its is the best outcome considering what others might do.

Involves the a player's best use of strategy in response to their rival's strategy

Game theory helps **oligopolists** in their decision making.

-Explain this theory using a diagram and business examples.

-Discuss the **single game and repeated game periods** in game theory

A single game is one that is not reoccurring while the repeated game is reoccurring. Starting price war is a common behaviour in a single price game. Participants here usually go for cheating because they're no further interactions between them. This results in a **non-cooperative nash equilibrium**. The way to move to a **cooperative nash equilibrium** is in

a repeated game. In the repeated game participants use a strategy called tit-for-tat. This is a cooperative strategic and if this agreement, there's usually non-cooperation from there.

3. Define the Keynesian Cross model and show how a decrease in imports can impact on national income (GDP). (30 Marks) (MA)

SECTION B

4. 'Firm's should be concerned about the price and income sensitivity of demand for their products'. Discuss. (40 marks) (MI)

For this question discuss **Income** and **Price** elasticities

-What is income elasticity? (IE)

Income elasticity of demand shows the effect of the change in income on the change in quantity demanded.

Income is an important determinant of consumer demand. This is why we have income elasticity, to show precisely what extent the change in income has on the change in quantity demanded.

The **formula for income elasticity** is

$$\frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

-Normal goods

A normal good is one where the demand is **directly proportional to income**. When the equation gives a **positive (+)** result, the good is regarded to be a **normal good**.

Example:

If an increase in a Zani's income from £40,000 to £50,000, causes him to buy 40 pornographic DVD's instead of 20 per year, then the income elasticity coefficient is

$$+100/+25 = (+)4$$

This means that the pornographic DVD is a normal good. The value is greater than 1, this means that the demand responds more proportionally to change in Zani's income. This means that this good is a luxury good and not a necessity like food for Zani.

-Inferior goods

When income elasticity is a **negative value (-)**, the good is classified as **inferior**.

Example:

If an increase in Tom's salary from £40,000 to £50,000 causes him to buy 180 loaves of bread instead of 200, then the income elasticity coefficient is:

$$-10/+25 = (-)0.4$$

Negative sign indicates that the good is inferior. The coefficient is less than 1 meaning that the good does not respond significantly to change in income.

-Legend

• Positive	Normal
• Negative	Inferior
Greater than 1 (+ or -)	Responds more proportionally to income (luxury good)
Less than 1 (+ or -)	Does not respond proportionally to income.

Reason firms and governments want to know income elasticity

-sales forecasting

It can be used to forecast the effect of the change income on sales revenue

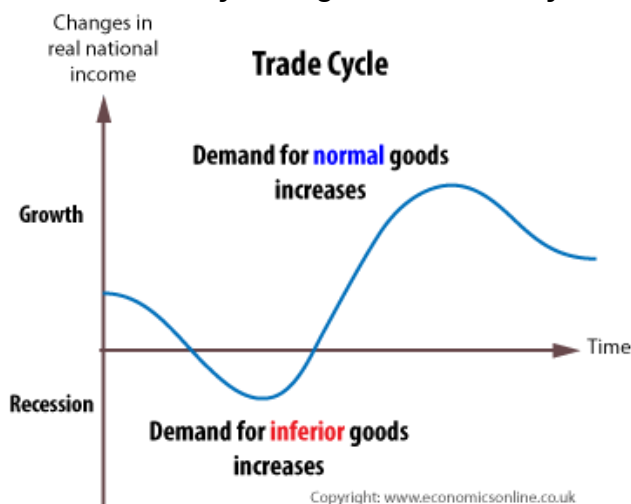
-pricing policies

Income elasticity helps a firm decide whether to change their prices or not following the change in consumer incomes. When income elasticity is positive, a reduction in price might help compensate for the reduction in demand.

-Diversification

Firms can diversify and make various good with different income elasticities to spread the risks associated with changes in levels of national income

Income elasticity during the business cycles



-During recession: Demand for inferior goods increases

-During a boom or growth: Demand for normal goods increases

-Price elasticity (PE)

Price elasticity of demand shows the relationship between price and quantity demanded. It provides a precise calculation of the **effect of a change in price on quantity demanded**.

Formula:

$$\frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}}$$

Example:

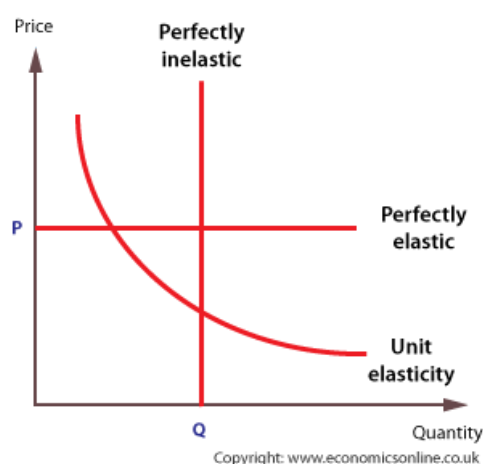
If the price of lube changes from £1.00 to £1.20 and the daily sales falls from 500,000 to 250,000 then the PE coefficient will be:

$$-50/+20 = (-)2.5$$

A negative sign indicates that Price and Quantity demanded are inversely related. Which is expected for most price/demand relationships.

Range of responses,

Less than 1	Inelastic
Greater than 1	Elastic
Zero	Perfectly inelastic
Infinite	Perfectly elastic



Why would a firm want to know PE.

-Sales forecasting: firms can forecast the impact of **change in price** on its sales volume, and sales revenue (total revenue, TR).

-Pricing policy: Helps firms decide whether to raise or lower prices.

-Non-pricing policy: When PE is highly elastic, firms can use advertising and other promotional techniques to reduce elasticity.

5. 'Economic welfare increases as the number of firms rises in an industry'. Discuss. (40 marks) (BS).

6. 'Short and long run macroeconomic growth policies amount to the same thing, increasing government expenditure'. Discuss. (40 marks)(MA)

2015

SECTION A

1. Define cross price elasticity and explain how it can be used to assess the external impact from another firm's pricing policy on the demand for your product. (30 Marks) (MI) (40)

-What is **cross elasticity of demand (CPE)**?

CPE is the responsiveness of demand for one product to a change in the price of another product. CPE shows how various products are related.

(State the calculations from **CPE**)

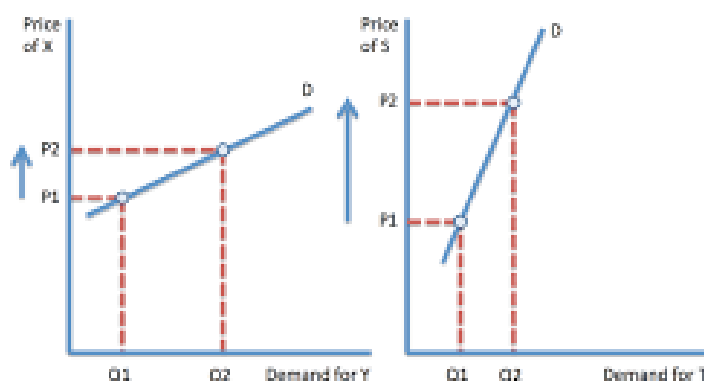
$$\frac{\% \text{ change in the quantity demanded of good B}}{\% \text{ change in price of good A}}$$

-Talk about CPE in terms of substitutes, give an example with calculations. DIAGRAM

Cross Price Elasticity of Demand - Substitutes

Close substitutes – small rise in price of X causes large rise in demand for Y

Weak substitutes – large rise in price of S leads to small increase in demand for T



When a positive value is obtained from calculating CPE, this indicates that the two goods are substitutes.

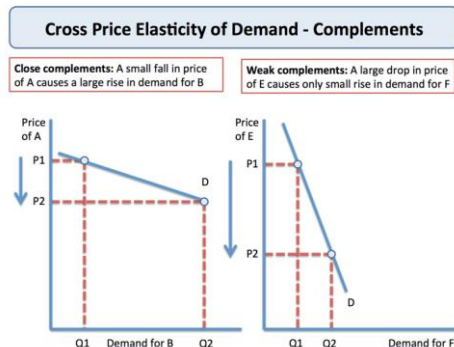
Example:

If the price of **condoms (good A)** increased from £5 to £6 and the demand for **pregnancy tests (good B)** increased from 1m to 2m per year then the XED between them is $+100/+20 = (+)5$

The positive sign indicates that the two products are substitutes and because the coefficient is greater than 1, they are very close substitutes.

-Talk about CPE in terms of **complements** , give an example using some calculations.

DIAGRAM



When a negative value is obtained from calculating CPE, it means that the two goods are complementary goods.

Example:

If the gate fee of a **club (good A)** increases from £50 to £75, and the demand for **beer (good B)** decreases from 1000-700, then the CPE between the two products will be:

$$-30/+50 = (-)0.6$$

The negative sign indicates that the two goods are complements. The figure is also less than 1 meaning that they are not really complementary

Importance of knowing CPE

- Market mapping
- Allows a firm to calculate how many rivals it has
- Measure importance of complementary products
- Allows firms to develop strategies to reduce its exposure to risks associated

Ways that firms can reduce risks

Horizontal Integration: This involves merging with a rival or acquiring a rival business.

Vertical Integration: This means merging with a complementary producer. An example is when a record label merges with a radio station.

Alliances and collusion: Alliances occur when rivals combine resources to create goods. Collusion is when firms enter agreements on things such as price in order to avoid price wars.

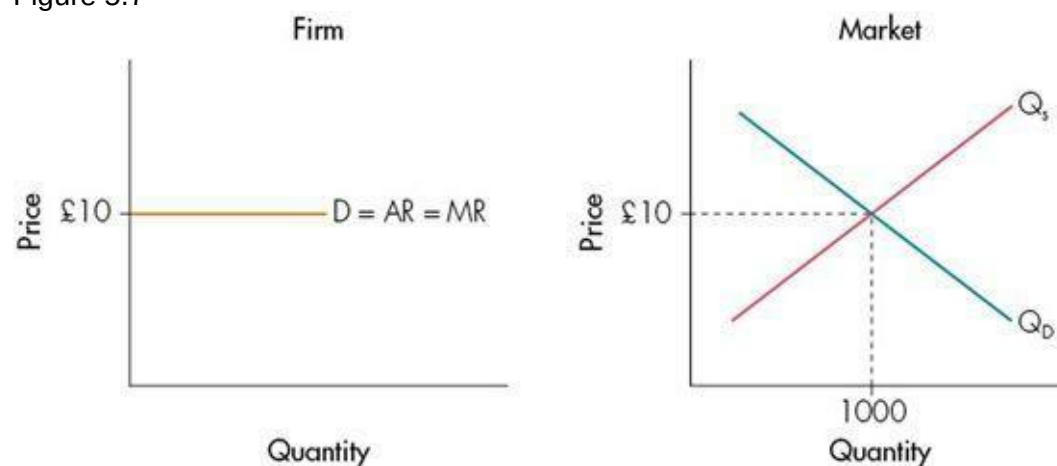
2. Define perfect competition and explain how the equilibrium of the typical firm changes from the short run to the long run. (30 Marks) (BS)

A perfectly competitive market is a type of market where competition is extremely high, causing firms to be 'price-takers'.

The marketplace is characterised by the following:

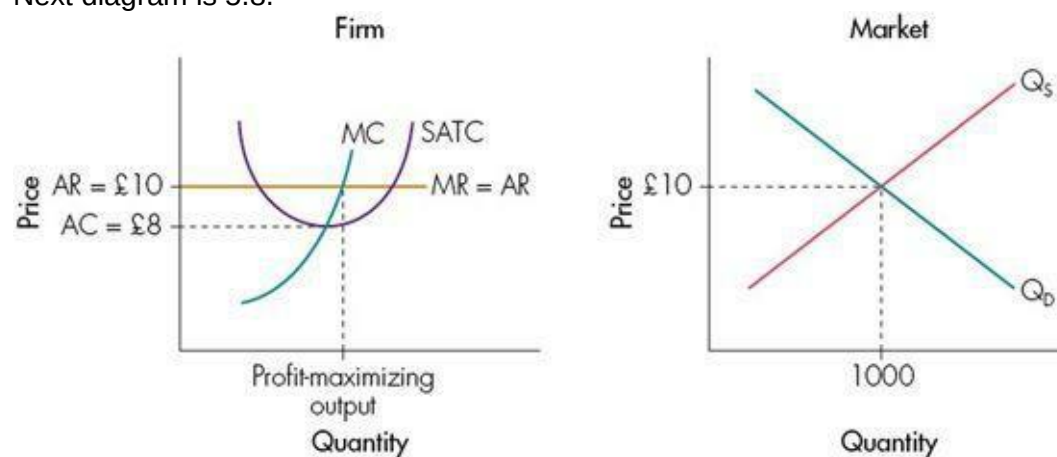
- The presence of many buyers and sellers
- Firms have no market power
- All firms produce homogenous products
- No barriers to entry or exit
- Perfect information

Figure 5.7



The diagram shows how the price elasticity of demand for a firm in a perfectly competitive market is perfectly elastic hence they are price takers.

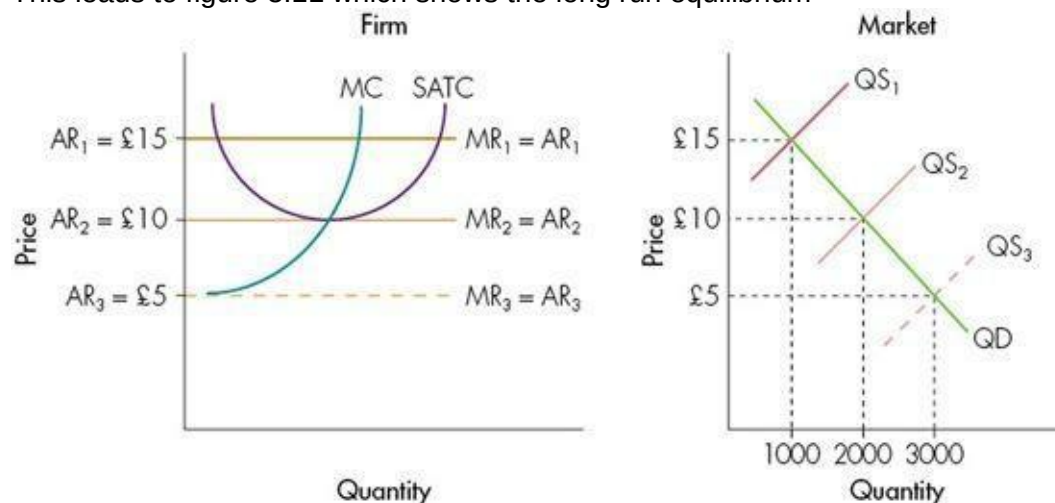
Next diagram is 5.8.



- This one shows the short run equilibrium for a firm.
- The firm produces at the output where $MC = MR$ which costs £8 per units.
- In perfectly competitive markets, firms tend to make supernormal profits (above what would be expected in the economic climate) in the short run.
- However, due to the high profitability of the market and no barriers to entry or exit, other firms are encouraged to join the market.

- On top of this, there is perfect information, meaning that firms not currently in the marketplace can see everything in the market so they are further encouraged to compete.

This leads to figure 5.11 which shows the long run equilibrium



At the start, there are few firms so that the firms can charge £15 and thus make supernormal profits. However, as more firms enter the market, it causes the supply to increase from QS_1 to QS_2 . Because of this, the price charged by suppliers must decrease to £10.

As even more firms continue to enter the markets, the further shift occurs from QS_2 to QS_3 and the price charged by suppliers drops even more to £5 per product. At this point, firms are actually making a loss so some firms will drop out.

This causes the shift back to QS_2 to occur and the firms can begin charging £10 per product again. This is now the long-run equilibrium point and firms will achieve normal profits at this point. This equilibrium point occurs at the minimum point of the average cost curve (see figure 5.11).

Other factors such as changing incomes can also be relevant. An increase in income will raise the short run equilibrium so that supernormal profits are achieved but, in the long run, the equilibrium will always remain at the same point.

3. Define the multiplier effect and explain how it can be used to illustrate the impact on national income (GDP) from an increase in investment (I). (30 Marks) (MA)

SECTION B

4. Assume that the pork pie industry is monopolistically competitive. Describe the short and long run impact on your firm when you introduce a new recipe pork pie for which there is initially a high profitable demand. (40 marks) (MI).

5. 'Some pollution is beneficial to society, our only problem with this externality is how to ensure firms produce an optimal level of it'. Discuss. (40 marks) (BS).

6. 'Economic growth is only achievable with expansionary fiscal and monetary policy'. Discuss. (40 marks) (MA)

2014

SECTION A

1. Define the production possibility frontier and explain how it can be used to illustrate the concept of opportunity cost. (30 marks) (MI)

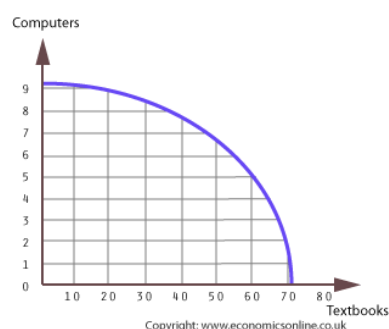
-When does opportunity cost arise:

The question of opportunity costs arises when a business has to decide where to allocate their resources. Opportunity cost discusses the loss of benefits of an alternative when the other option is chosen. The PPC help illustrate a simple but powerful way of explaining the concept of opportunity cost.

-What is a PPC or PPF and what does it show

PPC or PPF is a graphical representation of the possible combination of two different goods. The curve shows the maximum possible output combinations of two goods or services an economy can achieve when all resources are fully and efficiently employed.

-Draw a graph that represents two products



-Interpret the graph.

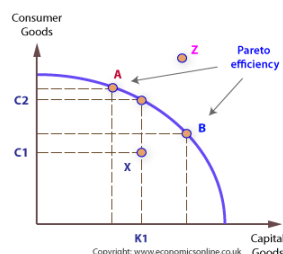
-PPF can show opportunity cost of producing one good against the other.

-Can also show the opportunity cost of a change in the curve.

-What is the Pareto efficiency?

The pareto efficiency is an economic state where resources in an organization are allocated in the most efficient manner. This is usually a point that lies anywhere on the production possibility curve.

-Draw a graph to show pareto efficiency



On this graph, any point inside the curve like point X, is regarded as inefficient because the output can be greater.

Any point outside the curve is regarded to be impossible with the current economy's scarce resources, However, that could be used to set objectives for the future. Pareto efficiency can also be used to show how -the best way to make a product better is by making another one worse off.

-problems with pareto efficiency:

The Pareto efficiency is unlikely to be achieved in the real world due to imperfections and rigidities.

A typical reason for this is that at all times, not all resources can be utilised at 100%.

*-Highlight some of its **usefulness to a business**.*

The Pareto analysis can be used to highlight imperfection and rigidities in an economy. It can be used to set objectives for a business.

-Explanation in terms of Opportunity cost

Economic theory states that given that the resources are limited, the decision to increase one product will result in reduction for another good. **Expand with many examples**

2. Define monopolistic competition and explain how the equilibrium of the typical firm changes from the short run to the long run. (30 marks) (BS)

(Combination of a monopoly in a competitive environment. Product differentiation is key)

-Define **monopolistic competition** and give a few examples

Monopolistic competition is a common market structure where firms have many competitors, but each one sells a slightly different product.

Various small businesses run as a monopolistic competition. This includes businesses like restaurants and high street stores etc.

Characteristics of a monopolistic market

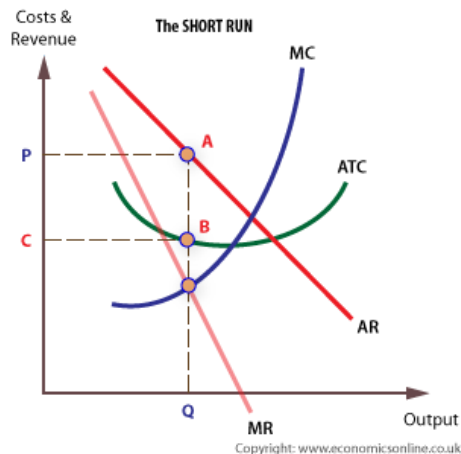
- Firms make independent decisions about price and output based on its product
- Large number of firms competing in the market
- Monopolistic competitive firms are known to be profit maximisers.
- Firms in a monopolistic competition usually have to engage in advertising. When products are slightly differentiated, the way they are advertised can make a difference.
- Monopolistic firms are price makers. This is because each firm has a unique product so they do have to charge higher or lower than their rivals.
- Their products are differentiated. Four main types are physical product differentiation, marketing differentiation, human capital differentiation and differentiation through distribution.
- No major entry barriers to the market

-Discuss **equilibrium under monopolistic competition**

In the short run supernormal profits are possible, but in the long run new firms are attracted into the industry, because of low barriers to entry, good knowledge and an opportunity to differentiate.

-Monopolistic competition **short run** (use graph to explain)

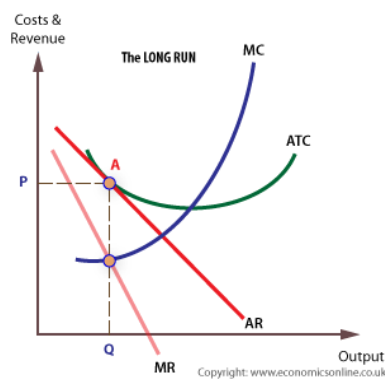
As new firms enter the market, demand for the existing firm's products becomes more elastic and the demand curve shifts to the left, driving down price. Eventually, all supernormal profits are eroded away.



At profit maximisation, $MC = MR$, and output is Q and price P . Given that price (AR) is above ATC at Q , supernormal profits are possible (area $PABC$)

-Monopolistic competition in **long run** (graphical explanation)

Super-normal profits attract in new entrants, which shifts the demand curve for existing firm to the left. New entrants continue until only normal profit is available. At this point, firms have reached their long run equilibrium



Clearly, the firm benefits most when it is in its short run and will try to stay in the short run by innovating, and further product differentiation.

3. Define the money market (in a macroeconomic framework) and explain how it illustrates the impact on interest rates from an increase in economic transactions. (30 marks) (MA)

SECTION B

4. Assume that the food industry is perfectly competitive. Describe the short and long run impact on the market and representative firm from the global severe weather effects on crop yields. (40 marks) (MI)

-What is a perfectly competitive market?

-

5. 'Some pollution is beneficial to society, our only problem with this externality is how to ensure firms produce an optimal level of it'. Discuss. (40 marks) (BS).

6. 'Aggregate demand management is the only solution for sustainable growth in the UK economy'. Discuss. (40 marks) (MA)

2013

SECTION A

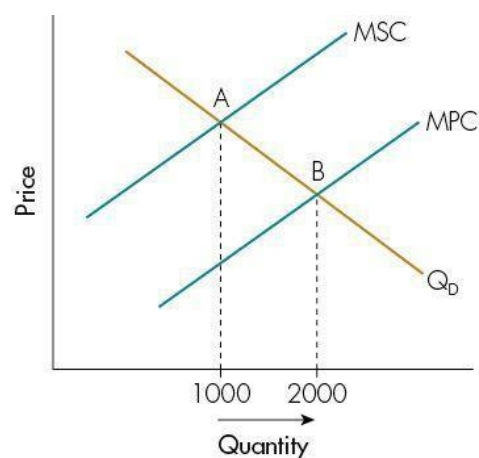
1. Define cross price elasticity of demand and explain why it might be important in a firm's pricing strategy. (30 marks) (MI).

2. Define externalities and explain how their market failure impact can be overcome. (30 marks) (BS).

Externalities definition - Externalities are when the production or consumption of a good/service result in costs or benefits to individuals not involved in the production or consumption. Externalities can be positive or negative, depending on the outcome.

Externalities often result in 'market failure'; a term used to describe any situation in which the market equilibrium is not at its most efficient point and externalities, along with monopolies, are 2 of the most common causes.

Draw Figure 8.1

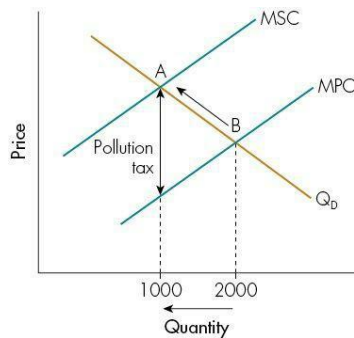


Marginal Private Costs are the additional costs to the company of producing one more unit. Marginal Social Costs are the additional costs to society of producing one extra unit. The optimum level of output for society is where MSC cross demand on the graph. However, this output level is below the level of MPC and is thus not as favourable for firms. The reason for this disparity is because society recognises costs such as pollution, whereas firms do not - they only recognise financial costs.

Therefore, in order to deal with the market failures that are caused by externalities, governments often regulate firms.

The government has 2 main methods of dealing with externalities; taxation and subsidies.

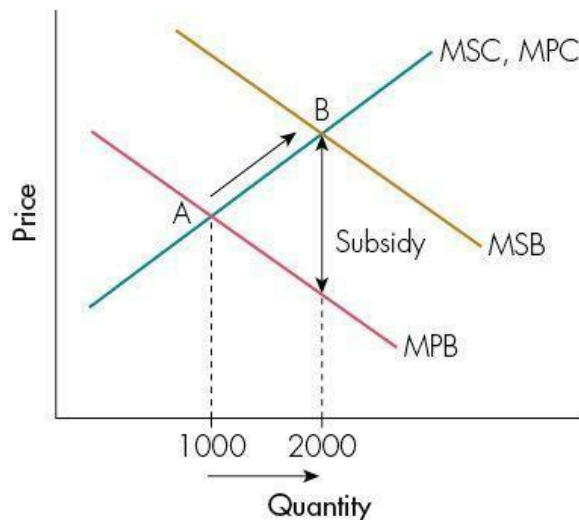
Draw Figure 8.3



Initially, the firm produces at point B but then a tax is implemented due to the negative effects of production on society. The result is that the production level changes, such that it moves from point B to point A. At point A, the firm is producing an output where demand is equal to the marginal social cost.

Subsidies -

Draw Figure 8.4



When marginal private benefit is at a lower value than marginal social benefit, there is no incentive for the company to produce a greater quantity than where their marginal private benefit crosses the demand curve. Therefore, to provide this incentive financially, the government offers subsidies to companies, thus shifting their marginal private benefit to the same level as the marginal social benefit.

3. Define the multiplier effect and explain how it can be used to illustrate the impact on national income (GDP) from an increase in investment (I). (30 Marks) (MA)

SECTION B

4. Assume that the frozen vegetarian food industry is perfectly competitive. Describe the short and long run impact on the market and representative firm from the recent horse meat contamination scandal in the UK. (40 marks).(MI)

5. 'Monopoly firms are beneficial to society'. Discuss. (40 marks). (BS).

6. 'Monetary policy is the only solution for restoring growth to the UK'. Discuss. (40 marks).(MA)

2012

SECTION A

1. Define income elasticity and explain how a firm may design a group of products, taking account of this economic concept, which would perform well during a boom or recession. (MI)

-

2. Define monopolistic competition and explain what happens in the long run equilibrium. (BS).

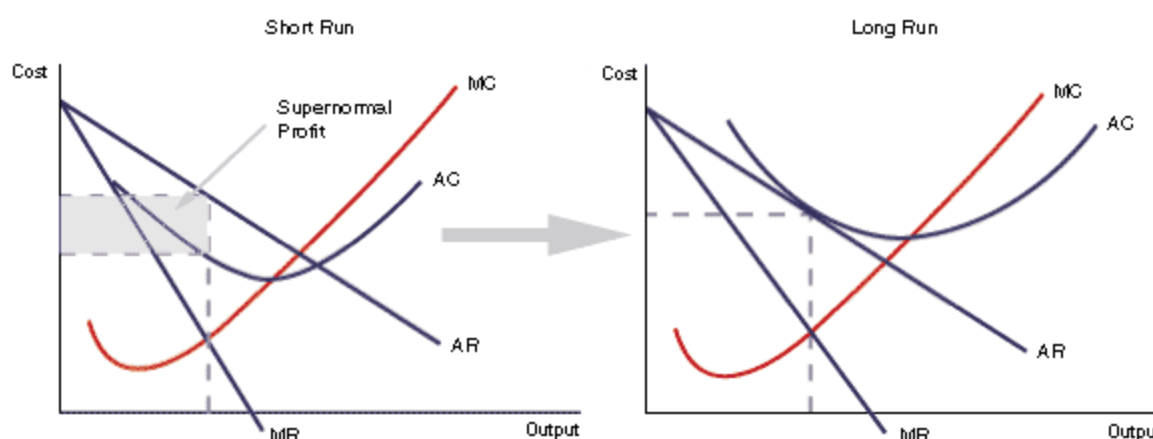
Monopolistic competition:

A highly competitive market where firms may use product differentiation

- Similar to perfect competition but with product differentiation (use examples)

Assumptions:

- Product differentiation
- Many buyers and sellers
- Low barriers to entry and exit
- Non price competitive
- Firms have small degree of price making power



Short run:

- Supernormal profits signal for other firms to enter market hence these profits are not sustainable.

Long run:

- In the long run there is stable equilibrium occurs when normal profits are being made hence $AR=AC$
- No allocative efficiency in long run
- No productive efficiency in long run

3. Define short term macroeconomic demand management policy and explain how it could be used to resolve recessions. (MA)

SECTION B

4. Define market demand function and explain which variables demand theory predicts might affect consumer demand for gold. (MI)

5. Critically argue against the notion that the strategic interaction of modern firms can be explained as 'simply choosing the right place'. (BS).

6. 'Economic growth depends on factors outside the control of government'. Discuss. (MA)

2. Define game theory and explain how it can applied to a duopoly situation.

3. Define aggregate demand and explain why demand management policies were used to resolve the problems caused by the 2008/2009 credit crunch. (MA)

SECTION B

4. Assume that the oil industry is perfectly competitive. Describe the short run and long run impact on the market and representative firm from a fall in demand for olive oil. (MI)

What is a perfectly competitive market?

Economists argued that a perfectly competitive market would produce the best possible outcome for consumers and society.

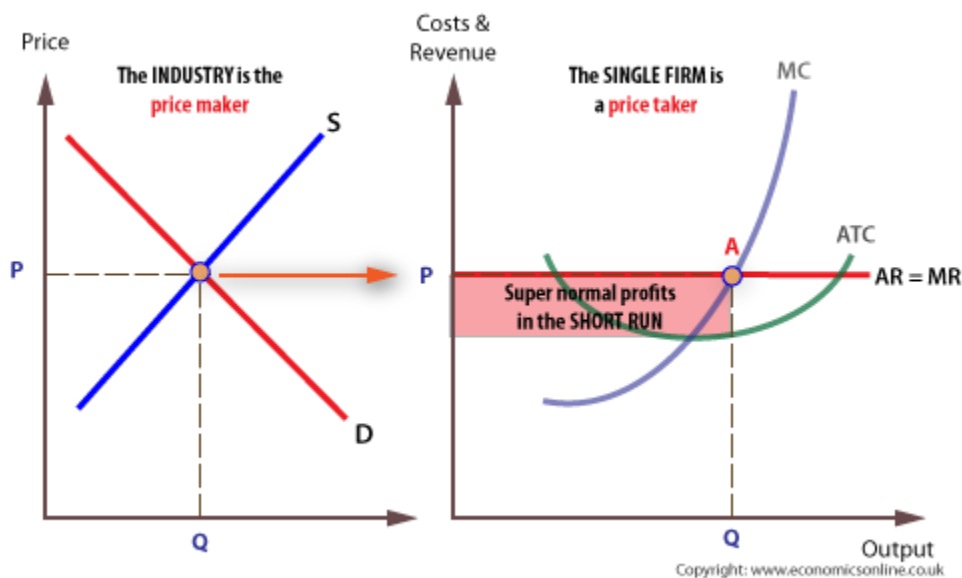
A perfectly competitive market is a hypothetical market where competition is at the greatest level possible.

Key characteristics

- Firms have perfect knowledge. Knowledge is freely available to all firms meaning risk-taking is minimal and the entrepreneurial role is limited.
- Firms usually make rational decisions to maximise their self interest. Consumers look to maximise their utility and producers look to maximise their profits.
- No barriers to entry or exit of the market
- Firms usually produce homogenous, identical goods that are not branded.
- No single firm can influence the market price or general market conditions. A single firm is regarded to be the price taker because it takes its price from the market.
- There is usually no need for government regulation except when it needs to make the market more competitive.
- It is assumed that there are no externalities.
- Firms can only make normal profits in the long run, although they might make abnormal profits in the short run.

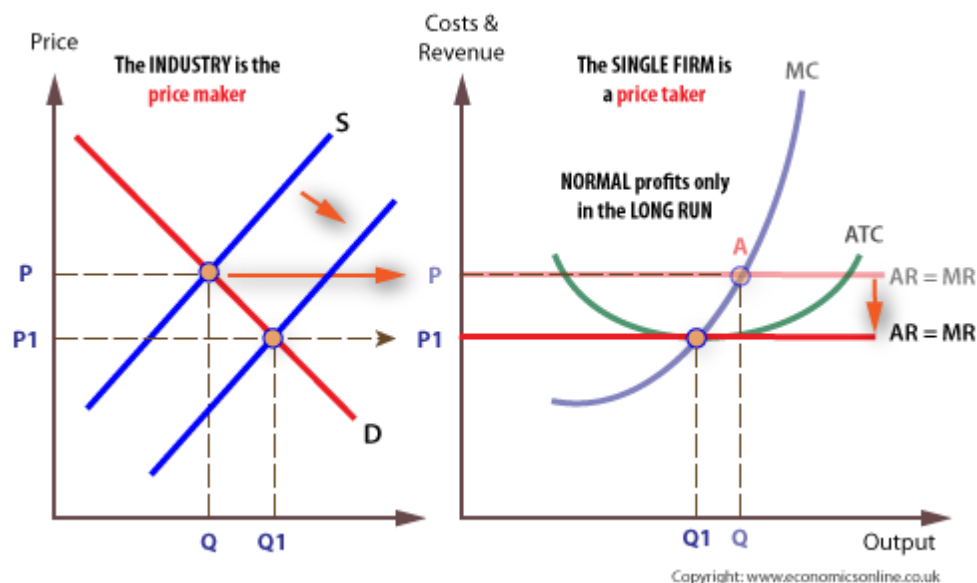
Equilibrium in the Short term

Firms can make supernormal profits or losses in the short run



Equilibrium in the Long term

As mentioned earlier, there is perfect knowledge and no barriers to entry. Firms are attracted to enter this market due to supernatural profits obtained by incumbent firms.



The effect of this shift is represented in the shift of the supply curve to the right, which drives down price until the point where the supernatural profits are exhausted.

5. Firms profit maximize. Discuss (BS).

6. The multiplier effect is a poor predictor of long run economic growth. Discuss (MA)

2009

SECTION A

1. Define income elasticity and explain how a firm may design a group of products, taking account of this economic concept, which would perform well during a boom or recession. (MI)

- **Income elasticity** is a measure of responsiveness to demand to changes in income
- Might want to say what effects elasticity (subs, time, market definition)
- How inferior goods and normal goods are determined and what they mean
- Impact recession or boom would have on each

2. Define vertical growth and explain how a firm can use growth to gain strategic advantage over rival companies (BS).

- Definition - when a firm expands up or down its value chain incorporating more than one stage of production process
- Why grow vertically?
 - Location benefits to reduce transportation costs and to have a pool of expertise
 - Monopoly supplier - if supplier is charging prices that are higher than under a competitive market, so may buy it and then charge an internal price equal to the MC which should be cheaper
 - Economies of scale - may want to engage in vertical disintegration and outsource to reduce costs as a large independent company supplying many others can exploit economies of scale in a way that the firms small internal division can not. So cheaper buy from the large company.

- Transaction costs - transactions costs can be high so when possible a firm will use hierarchy or managerial structure to control transactions and reduce transaction costs. Or shrink when firm sees its possible to reduce transaction costs by using the market to control transaction.

- Hold-up problem

Firms will grow vertically up or down the vertical chain if the transaction costs of operating through the market are too high. By internalising transactions, or making the value-adding product/service inside the company the firm will attempt to control its transaction costs more effectively... (opposite true if market price low => disintegrate)

Firm will also grow whenever the market refuses to supply products for fear of the hold=up problem