

Monopoly:

Assumptions underlying the theory of Monopoly

First and foremost, a monopoly is a monopoly because it is the only seller in the market. The word monopoly actually translates as “one seller.” As the only seller, a monopoly controls the supply-side of the market completely. If anyone wants to buy the good, they must buy from the monopoly.

Unique Product:

A monopoly achieves single-seller status because the good supplied is unique. There are no close substitutes available for the good produced by a monopoly.

Barriers to Entry:

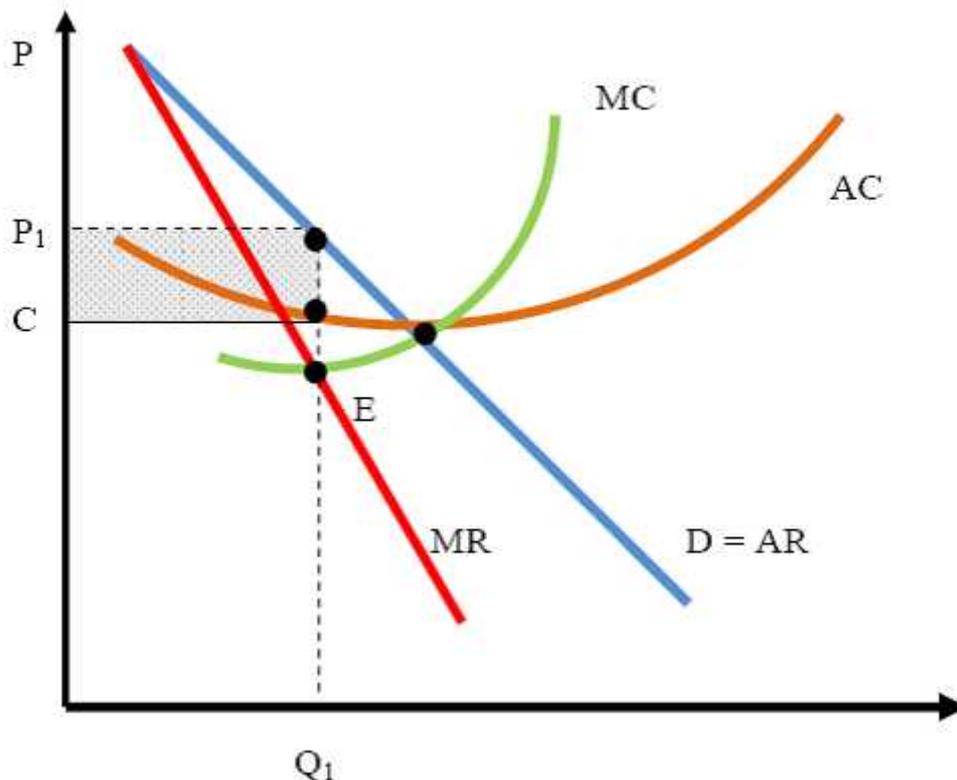
A monopoly often acquires and generally maintains single seller status due to restrictions on the entry of other firms into the market. Some of the key barriers to entry are: (1) government license or franchise, (2) resource ownership, (3) patents and copyrights, (4) high start-up cost, and (5) decreasing average total cost. These restrictions might be imposed for efficiency reasons or simply for the benefit of the monopoly.

Specialized Information:

A monopoly often possesses information not available to others. This specialized information comes in the form of legally-established patents, copyrights, or trademarks.

The Diagram

Explain with the aid of a diagram, the long run equilibrium position for a monopoly firm which seeks to maximise profits



1. Equilibrium

Occurs at point E where

MC = MR and MC is rising and cuts MR from below.

2. **Price charge & /Output produced**

The firm produces output Q1 and sells it at price P1 on the market

3. **Cost of production**

The cost of producing this output shown at point C.

4. **4. Super Normal Profits.**

This firm is earning SNP's – represented by the shaded area above

They are earning SNP's because $AR > AC$ and

They can continue to earn SNP's because barriers to entry exist

5. **Waste of Scarce Resources**

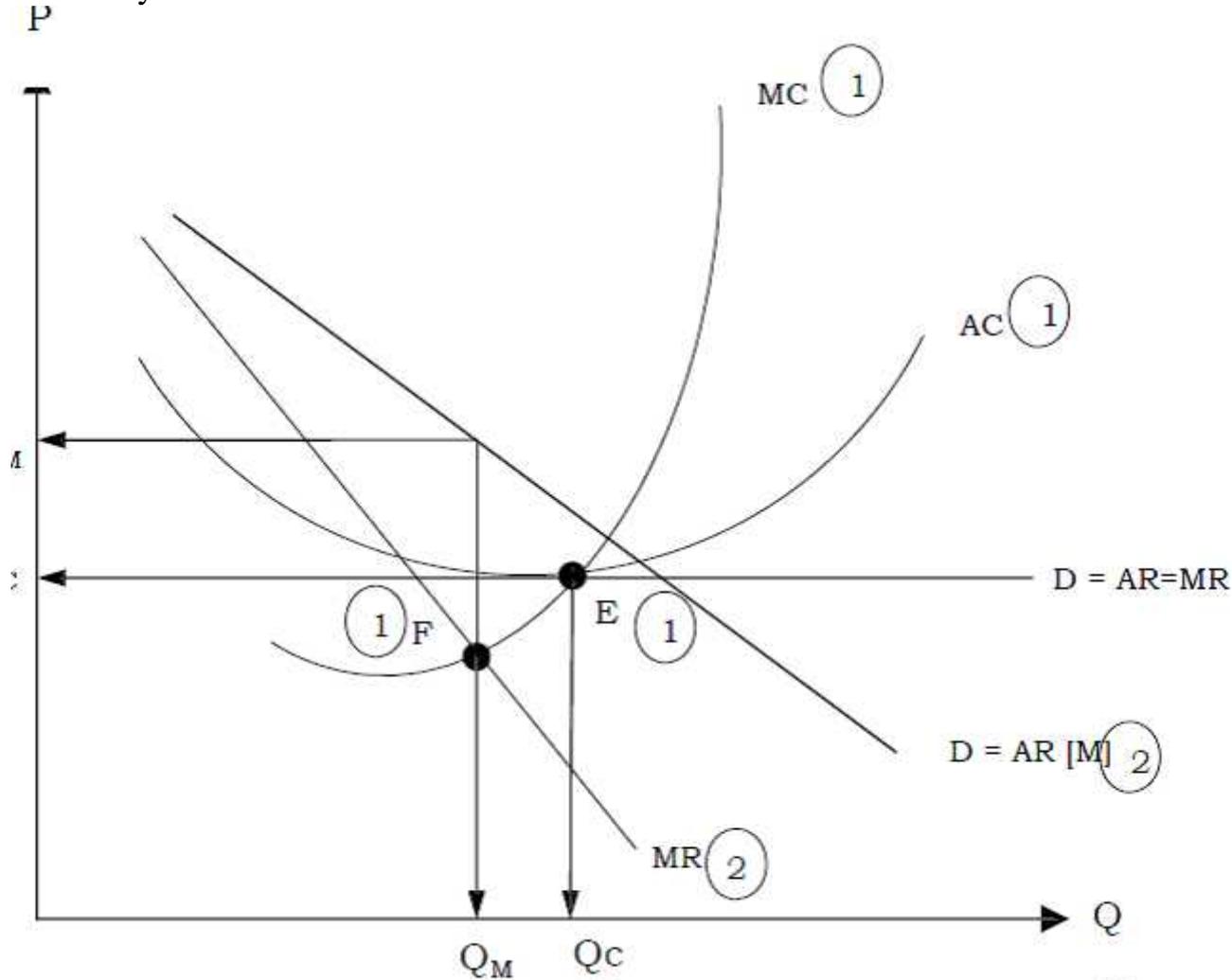
Because the firm is not producing at the lowest point of the AC curve it is wasting scarce resources.

Outline the advantages of monopoly as a market structure.

Comparing Monopoly & Perfect Competition

Using suitably labelled diagram(s), compare the long run equilibrium position of the monopoly firm with that of a perfectly competitive firm (assuming both operates under the same cost conditions) using the following headings:

-) Price and Output;
-) Profits;
-) Efficiency.



	Comment
Price	A firm in a monopoly position sells its output at a <u>higher price</u> – P_m rather than P_c .
Output	A firm in a monopoly position produces a <u>smaller output</u> than in perfect competition – Q_m rather than Q_c .
Profits	Because $AR = AC$ (1) a firm in PC earns normal profit (1). (2) Because $AR > AC$ (1) a firm in monopoly can earn SNPs. (1). (2)
Efficiency	A firm in PC produces at the lowest point of AC (1) and so is efficient (1). (2) A monopoly may not produce at the lowest point of AC (1) and so maybe inefficient (1). (2)

Price Discrimination – Killing Consumer Surplus

There are **three types** of price discrimination;

Type	Explanation	Example
1 st Degree	<ul style="list-style-type: none"> • A monopolist attempts to remove consumer surplus. • A monopolist identifies those consumers who are prepared to pay a higher price and consequently charges them that higher price. • This type of price discrimination can occur in one-to-one confidential services. 	Visiting a medical consultant / solicitor
2 nd Degree	<ul style="list-style-type: none"> • A monopolist gives discounts for bulk buying 	Night Saver Electricity Magazine subscriptions 3 for 2 offers
3 rd Degree	<ul style="list-style-type: none"> • Consumers have different price elasticities of demand. • Consumers with inelastic demand pay a higher price than consumers with elastic demand 	Business air travel vs. leisure air travel Special rates / prices for students and old age pensioners.

Outline ways in which state monopolies (eg ESB) could be made more efficient.

State conditions under which it would be possible for a firm to price discriminate. When goods or services are sold to different consumers in different markets at varying ratios between marginal cost and price/ the price difference is not due to difference in the cost of production.

Monopoly Power:

If freedom of entry existed into the industry, competitors would enter where the firm was charging the higher price and earning SNP and this would continue until only normal profit was earned.

Separation of markets:

This ensures that the good bought in the low priced market cannot be offered for resale in the higher priced market. If it was not possible to separate the markets then the above would occur until no price difference existed.

Different consumer elasticities of demand:

Consumers with the greater price elasticity of demand are charged the lower prices for their goods e.g. students are assumed to have lower incomes and so are not in the position to pay the full price for certain goods and services.

Consumer Indifference:

The difference in price may be so small that consumers are indifferent and so don't mind paying the slightly higher price.

Lack of awareness by consumers:

Consumers may be unaware that the good is available elsewhere at a lower price.

Consumer attitudes to the goods:

A consumer may be willing to pay a higher price for a good which they consider to be in fashion / provide status e.g. young people and their desire for 'branded' products.

Explain how deregulation could affect:

- (i) Consumers of the good/service;
- (ii) Employees in the industry;
- (iii) Profits of existing firms.

	Statement	Explanation
Consumers of the good/service	<p>Lower Prices.</p> <p>Increased availability of service.</p> <p>Increased efficiency.</p> <p>Loss of essential non-profit making services</p> <p>Loss of quality in service</p> <p>Higher prices in future</p>	<p>Increased competition / an increase in supply may cause prices to fall.</p> <p>With an increase in the number of suppliers, availability of the good/service may expand e.g. taxis in Dublin.</p> <p>With increased choice in suppliers the consumer may benefit from increased efficiency by firms.</p> <p>Non-profit making services may be discontinued by companies in an effort to reduce costs</p> <p>Quality of services may disimprove to cut costs</p> <p>There may be higher prices in the future in order to survive the competition</p>
Employees in the industry	<p>Loss of employment in existing businesses.</p> <p>Job opportunities with new suppliers.</p> <p>Changed working conditions.</p>	<p>With increased competition existing suppliers may suffer from a loss of business resulting in a loss of jobs.</p> <p>New suppliers may offer increased employment opportunities.</p> <p>The drive towards increased profits may mean that businesses may reduce the benefits to existing / new employees.</p>
Profits of existing firms	<p>Decreased profits</p> <p>Increased profits</p>	<p>If existing businesses experience a loss of business, their market share falls resulting in a loss of profits.</p> <p>If the existing businesses are able to meet the new competition and expand their business activities the opposite of the above may occur. Business may experience economies of scale.</p>

Oligopoly

Key features of an oligopolistic market.

1. Few Sellers in the industry.

Because of this each seller can influence the price of the commodity/or the output sold.

2. Interdependence between firms.

Firms in oligopoly do not act independently of each other. They will each take into the account the likely reactions of their competitors. Hence **prices tend to be rigid**.

3. Product Differentiation occurs.

The commodities which firms sell are close substitutes. Firms will engage in advertising to persuade consumers to buy their product rather than a competitor's product.

4. Barriers to entry.

These are common in an oligopolistic market as existing firms will wish to maintain their share of the market. Examples of barriers include: high costs of setting up in the industry, brand proliferation etc.

5. Collusion may occur.

Firms within the industry may meet to control the output in the industry and/or control prices e.g. OPEC.

6. Non-price competition is more common than price competition.

Due to the fear of how their competitors will react firms tend not to engage in price competition but rather they engage in non-price competitive measures to gain consumers.

7. Pursuing objectives other than profit maximisation.

Firms may have objectives other than maximizing their profits i.e. increasing their share of the total market, limiting profits to discourage government investigation, satisfaction with the existing level of profits (e.g. in a small family business)

Examples:

Petrol/Oil companies – Shell, Statoil, Esso etc.

Motor Car Manufacturers – Ford, General Motors, Nissan etc.

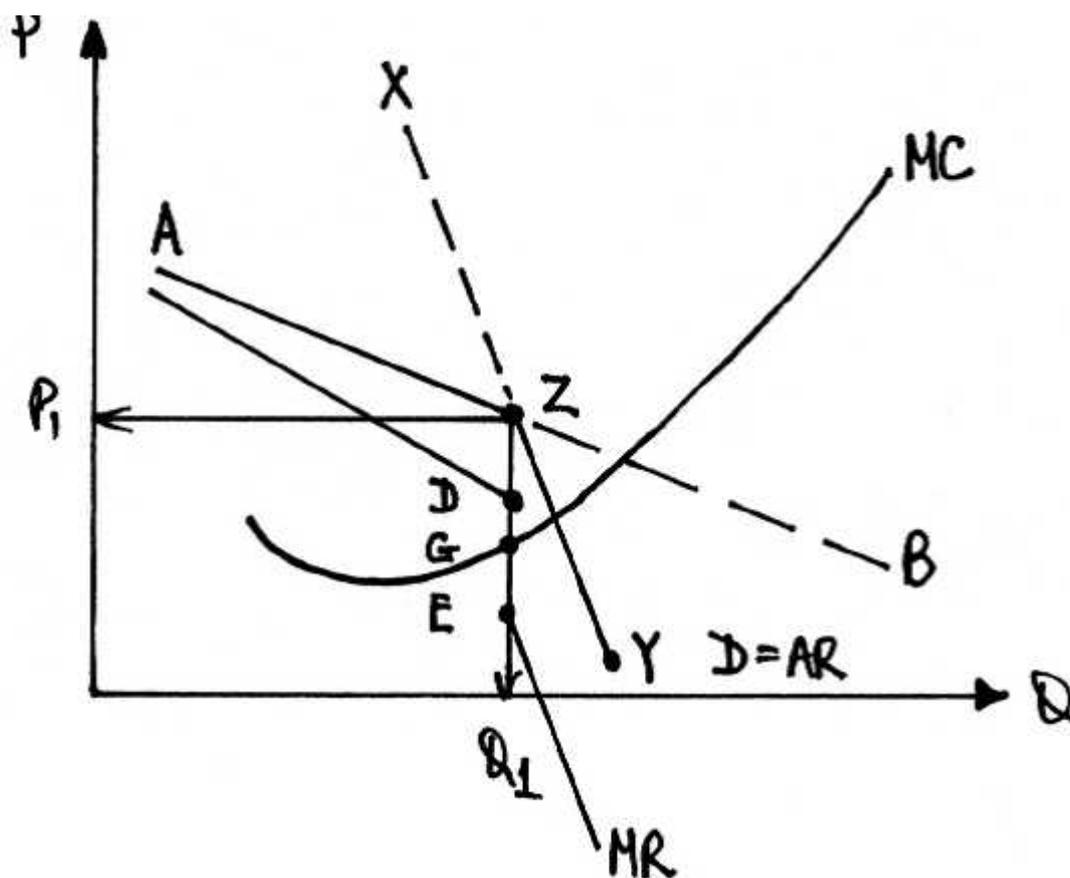
The Diagram: Remember to EXPLAIN what we see in a diagram

With the aid of **ONE** clearly labelled diagram:

Explain the shape of the 'kinked demand curve' under oligopoly.

Explain the long run equilibrium position of a firm facing a 'kinked demand curve'.

Explain what is meant by the term 'rigidity of prices' under a 'kinked demand curve'.



This firm faces an ELASTIC D/C – demand curve AB If a firm increases its price other firms leave their prices unchanged – so this firm will lose many customers.

The firm faces an INELASTIC D/C – demand curve XY if a firm lowers its price other firms will match this price decrease – the firm will gain few additional customers.

The long run equilibrium position of this firm:

Equilibrium is achieved where (a) $MC = MR$ & (b) MC is rising.

This occurs at point G in the diagram.

The firm will produce Q_1 and sell this output at price P_1

Reference to unchanging prices: should costs rise between points D and E then market price tends to remain constant at P_1 .

Reference to profits: as barriers to entry may exist, this firm can earn SNPs

if AR exceeds AC.

Rigid/Sticky Prices

Explain what is meant by the term 'rigidity of prices' under a 'kinked demand curve'

This occurs when prices tend not to change when costs change in an oligopolist Industry. This is because firms are fearful of the likely reaction of their competitors should they change prices.

Between points D & E as MR is constant, if MC changes prices tend not to change.

Relationship between this D/C and the firm's marginal revenue curve:

Because the D/C is kinked the firm's MR curve consists of 2 distinct parts and is constant between point D and point E, so irrespective of what happens to costs the firm's revenue does not change.

Advantages & Disadvantages of oligopoly

Possible advantages include:

Stability in prices / price comparability

If firms engage in non-price competition, then prices tend to remain stable and this enables the consumer to plan ahead and stabilise their expenditure. It is easy to compare prices as there are few firms which forces firms to set prices competitively, which is good for consumers.

Profit levels

Firms may have to sacrifice some of their profits to keep customers or undercut rivals / the existence of high profits may mean that the government benefits through higher taxation revenue / firms may be able to afford to engage in R&D.

Quality of product /service

Firms may improve the quality of products so as to attract and retain consumers. Firms provide higher quality, more frequent services and other upgrades to maintain consumer loyalty.

Benefits of advertising

With advertising consumers may be better informed. This may save consumers time and money in searching for and learning about goods and services.

Advertising may encourage innovation, technological development leading to improved products and services.

Possibility of lower prices

Economies of scale may be passed onto the consumer in the form of lower prices.

If firms adopt a highly competitive strategy they can generate similar benefits to more competitive market structures, such as lower prices.

More secure employment

As there is little competition between firms, jobs may be more secure with the industry.

Possible disadvantages include:

Supernormal profits

Moderate to high barriers to entry exist so new entrants can't compete away supernormal profits (SNP). SNPs can be earned at the expense of the consumer. There may be a lack of innovation due to the existence of SNP.

Higher prices

If firms collude and decide to take a high price strategy, then this is not good for the consumer. Firms may meet to control the output in the industry and /or prices. The presence of cartels and cartel like behaviour reduces competition and can lead to higher prices.

Effects of cartels / collusion

Mutual interdependence makes the price and output difficult to predict. Collusion may occur and firms may work together in order to behave as if they were a Monopolist, thus making higher profits. Firms may not make independent decisions, and this limits competition.

Restricted choice

High concentration ratios reduce consumer choice of products / services.

Prevention of the entry of new firms/barriers to entry

It is very difficult for startups as advertising/branding by the large established firms limits exposure for new firms. The economies of scale resulting from advertising-driven demand and market share place prospective new entrants at a significant cost disadvantage. Other barriers to entry include patents and the inability to find suppliers of materials and components for products. Strong brand loyalty schemes may also prevent new entrants.

Explain different types of collusion which may occur in an oligopolistic market.

1. Pricing Policy / Limit Pricing

One firm, with the tacit agreement of others, could reduce prices forcing unwanted entrants out of the industry.

2. Production/output policy

Firms could join together to limit output to certain agreed amounts.

3. Sales Territories.

Firms could divide up the markets between them and agree not to compete in each other's market segments.

4. Refusal to supply firms.

Firms may not supply those firms who buy from firms not in the cartel.

5. **Implicit Collusion**

Each firm recognises that behaving as if they were branches of a single firm their joint profits would be higher. So firms do not provoke their rivals by cutting prices. Instead they try to increase market share by engaging in non-price competitive measures.

Oligopoly in Action

Do you believe that the Irish retail market for banking services (e.g. personal current accounts) operates under oligopolistic conditions? Explain your answer.

The retail market for personal banking services in Ireland operates under oligopolistic conditions because:

1. **Few Sellers.**

There are relatively few banks providing personal services within the market e.g. AIB, Bank of Ireland etc. Even with the entry of new banks these two dominate the market.

2. **Interdependence between firms.**

The banks do not act independently of each other. They closely take into the account the likely reactions of their competitors to any changes they may make.

3. **Close substitutes.**

The services provided are very close substitutes. There is competitive advertising and heavy 'product loyalty' promotion. Various gimmicks are used to attract customers.

Distinguish between price and non-price competition.

Price competition is rivalry between suppliers based solely on price, usually for commodities or identical items.

Non-price competition is the market situation in which competitors would not lower prices for fear of a price war. Instead they focus on extensive promotions to highlight the distinctive benefits or features of their products. Non price competition is an anomaly in a free market systems based on price-quantity relationship

Price competition means that the consumer gets the lowest price that the market can take and efficiency is encouraged as there's no waste on advertising or other product differentiation.

TWO benefits of non-price competition to consumers.

- (a) **Stability in prices:** non-price competition means unchanging prices for the consumer
- (b) **Better quality:** commodity; service; after sales service.
- (c) **Benefits of advertising / Sponsorship:** improved range/quality of service i.e. media.
- (d) **Consumer more informed:** advertising provides consumers with information.
- (e) **Consumer loyalty rewarded:** allows consumers get 'free' gifts.

DUOPOLY

What is a Duopoly?

A duopoly is a type of oligopoly, characterized by two primary corporations operating in a market or industry, producing the same or similar goods and services. The key components of a duopoly are how the firms interact with one another and how they affect one another.

Duopoly

In a duopoly, two companies control the entirety of the market for the goods and services they produce and sell. While other companies may operate in the same space, the defining feature of a duopoly is the fact that only two companies are considered major players. These two firms – and their interactions with one another – shape the market they operate in.

Real World Example

Visa (V) and Mastercard (MA) are considered duopoly. The two financial powerhouses own over 80% of all European Union card transactions.

Types of Duopolies

There are two primary types of duopolies: the Cournot Duopoly (named after Antoine Cournot) and the Bertrand Duopoly (named after Joseph Bertrand).

1. The Cournot Duopoly

Antoine Cournot was a French mathematician and philosopher. In the early to mid-1880s, Cournot used his understanding of mathematics to formulate and publish a significant model of what oligopolies look like. The model, known as the Cournot Duopoly Model (or the Cournot Model), places weight on the quantity of goods and services produced, stating that it is what shapes the competition between the two firms in a duopoly. In Cournot's model, the key players in the duopoly make an arrangement to essentially divide the market in half and share it.

Cournot's model speculates that in a duopoly, each company receives price values on goods and services based on the quantity or availability of the goods and services. The two companies maintain a reactionary relationship in regard to market prices, where each company changes and makes adjustments to their respective production, ending when equilibrium is reached in the form of equal halves of the market for each firm.

2. The Bertrand Duopoly

Joseph Bertrand, operating around the same period as Cournot, was a French mathematician and economist. Bertrand became well known after publishing a number of reviews on math and economy-related articles written by professional peers and colleagues such as Leon Walras and Antoine Cournot.

Bertrand's critique of Cournot's model of duopolies is ultimately what led to the furthering of both oligopoly theory and game theory, most notably resulting in the formation of his own theory or model of duopolies, the Bertrand Model.

The primary difference between Cournot's model and Bertrand's model is that while Cournot believed production quantity would drive the competition between the two companies, Bertrand believed that the competition would always be driven by price.

Bertrand's duopoly identified that consumers, when given a choice between equal or similar goods and services, will opt for the company that gives the best price. It would start a price war, with both companies dropping prices, leading to an inevitable loss of profits.

The Significance of a Duopoly

Duopolies are significant because they force each company to consider how its actions will affect its rival, meaning, how the rival firm will respond. It affects how each company operates, how it produces its goods, and how advertises its services, and can ultimately change what and how goods and services are both offered and priced. When the two firms compete on price – in a Bertrand Duopoly – prices tend to dip to or below the cost of production, thereby wiping out any chance for profit.

For this reason, most duopolistic firms find it profitable and generally necessary to agree to form a sort of monopoly, setting prices that allow both firms to take one half of the market space and thus one half of the market's profit. However, this is a tricky tactic if done incorrectly, because the Sherman Act and other antitrust laws in the United States make collusive activity illegal.

Duopolies, when operating and competing based on production quantity instead of price, tend to function better, avoiding any potential for legal issues and enabling each firm to share in the profits, reaching a price and operating homeostasis within their duopolistic market.

Monopolistic/Imperfect Competition

Assumptions underlying the theory of imperfect competition.

There are many buyers in the industry.

An individual buyer, by his/her own actions, can't influence the market price of the goods.

There are many sellers in the industry.

An individual seller can influence the quantity sold by the price it charges for its output.

Product differentiation exists.

The goods, supplied by the producer, are not homogenous but are close substitutes.

Firms use branding to distinguish their products from one another.

Freedom of entry and exit.

No barriers to entry exist within the industry.

It is possible for firms to enter/leave the industry as they wish.

Reasonable knowledge.

Within the industry each firm has reasonable knowledge of profits made by other firms.

Consumers have a reasonable knowledge of the prices being charged for different products.

Each firm attempts to maximise profits.

Firms produce where $MC = MR$ Each firm will attempt to minimise costs of production.

Product Differentiation & the Shape of the Imperfectly Competitive Demand Curve

The goods which are produced are **close substitutes / similar goods / not identical goods.**

Effect of product differentiation on the AR and MR curves of a firm

Product differentiation can be achieved by:

Explanation	Example
Branding Establishing different and distinctive brand names for the products	Nike, Addidas, Reebok
Competitive Advertising Creating differences in the products in the minds of consumers e.g. through packaging which clearly distinguishes one product from another	Daz v. Surf Kellogs Cornflakes
Product innovation Firms develop their product further (add value) so that it is better or more advanced than that of competitors.	Lyons pyramid tea bags; Avonmore – super milk. Fairy detergent – anti bacterial agents.

As a result of product differentiation:

A firm's AR will be downward sloping from left to right.

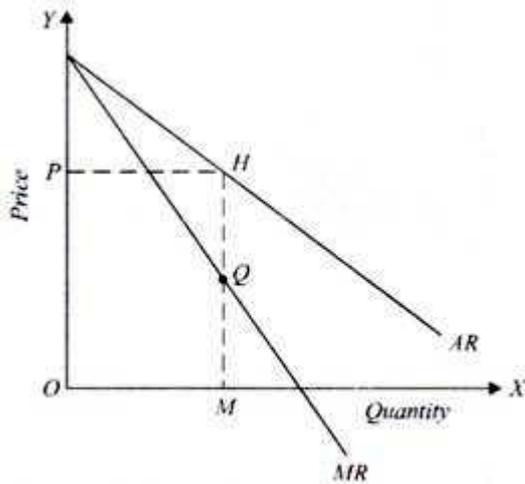


Fig. 28.2. *Average and Marginal Revenue Curve under Monopolistic Competition*

As products are close substitutes:

If a firm lowers price it can expect to attract some but not all customers from other firms; if the firm increases prices it may expect to lose some but not all customers – so the firm will sell less at higher prices and more at lower prices. Consequently the demand curve (AR curve) facing the firm is downward sloping.

If AR is falling then MR is also falling and lies below AR. To encourage more customers the firm must drop the price. The AR Curve is falling. The revenue from the increased sales will be reduced by the falling revenue on each unit previously sold at a higher price but now at a reduced price.

Outline the advantages imperfect competition may offer to consumers.

Greater choice

Goods are not homogenous, but are close substitutes; therefore consumers have a greater choice of goods/services.

Normal Profit

In the long-run consumers are not being exploited as the firm is earning normal profits.

Lower prices

Competition between firms in the industry will help lower prices and make them more competitive for consumers. Some items such as newspapers, magazines, sporting and music events may be cheaper due to the revenues earned by the supplier from competitive advertising.

Innovative goods/services

Innovation is encouraged as firms will constantly strive to gain a competitive edge over their rivals; hence, consumers get the benefit of modern up-to-date goods/services.

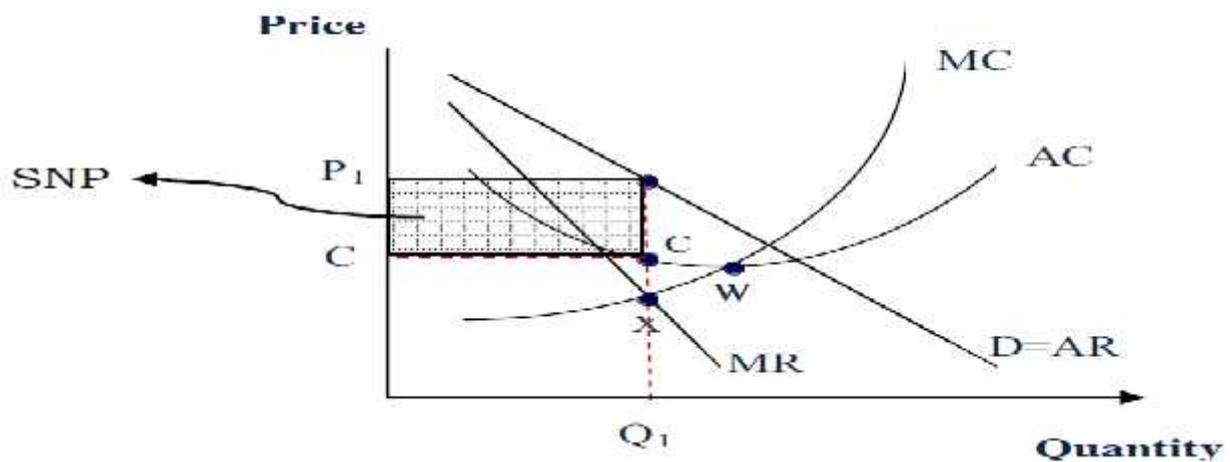
Access to information

Consumers may have more information available to them because of the extensive competitive advertising used within the industry.

Explain with the aid of a diagram in each case the conditions for a profit maximising firm to be in equilibrium under imperfect competition:

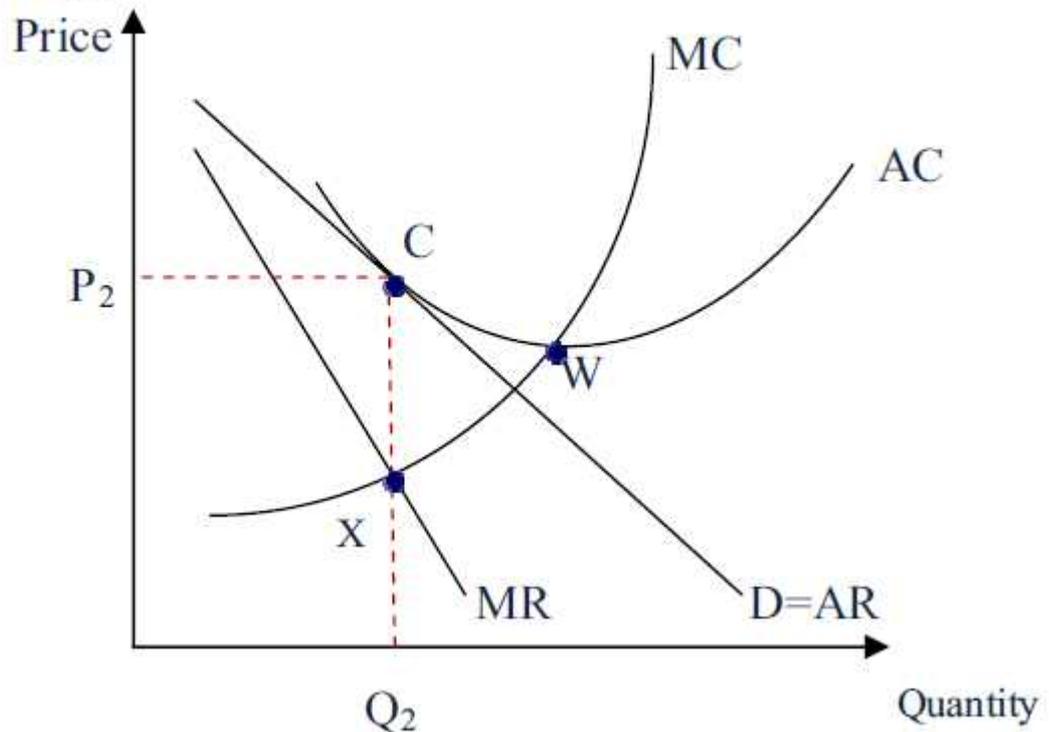
Explanation of short run equilibrium:

(i) In the short run



- J Equilibrium/ Profit maximisation occurs at point X where $MC = MR$ (*MC is rising and cuts MR from below*).
- J The level of output produced is Q1 and the price the firm sells this output at is P1
- J The average cost of production is shown at point C / not producing at lowest point of AC.
- J This firm is earning super normal profits because $AR > AC$.

(ii) In the long run.



Explanation of long run equilibrium:

-)
- o Equilibrium / profit maximisation occurs at point X where $MC = MR$ (*MC is rising and cuts MR from below*).
- o The level of output produced is Q_2 and the price the firm sells this output at is P_2 .
- o The average cost of production is shown at point C.

) **This firm is earning normal profits because $AR = AC$.**

) The firm is not producing at the lowest point of AC/ this indicates that the firm is wasting scarce resources.

‘Major food retailers in the Irish market, such as Aldi, Dunnes, SuperValu and Tesco, operate under conditions of Imperfect Competition’.

Do you agree with this statement? Give reasons for your answer, referring to major food retailers in the Irish market mentioned above.

No, I do not agree with this statement. It is an **oligopolistic market** because:

1. The industry is dominated by a few large retailers/multiples, who hold a major share of the market such as Tesco, Dunnes Stores, SuperValu etc.
2. New firms may find it difficult to enter due to barriers to entry such as economies of scale, brand proliferation and control by existing firms of the channels of distribution.

3. Mutual interdependence between the firms: Firms interact by taking account of each others marketing / pricing strategies. They are concerned with maintaining or increasing their share of the total market e.g. the current Tesco and Dunnes Stores advertising / pricing campaigns.
4. The products sold are close substitutes: Competitive advertising is important as is heavy 'product loyalty' promotion. Various gimmicks are used to attract customers. Sellers also use 'brand names' extensively to maintain consumer loyalty.

Consider the retail market for petrol. Do you believe that this market operates under conditions of imperfect competition?

The retail market for petrol operates under conditions of imperfect competition because:

1. There are many sellers of petrol within the market e.g. Shell, Statoil, Maxol.
2. The products sold are close substitutes. There is competitive advertising and heavy 'product loyalty' promotion. Various gimmicks are used to attract customers. Sellers also use 'brand names' extensively to maintain consumer loyalty.
3. Each seller can influence the demand for petrol by altering the price as consumers are becoming far more sensitive to the price differences for petrol.

Explain the features that imperfect competition may have in common with perfect competition and with monopoly in the long run.

Perfect Competition	Monopoly
1. Both earn Normal Profit Because $AR = AC$.	1. Both wasteful of resources Neither produces at the lowest point of average cost.
	2. Downward sloping D/C Both must lower P to increase Q_D
	3. Price is greater than MC Indicates that more of the good could be produced.

Perfect Competition

The market structures move from least control to most control so let's begin with the type of market with least influence over one's own destiny. **Remember the explanation/interpretation of a diagram is at least as important as the diagram itself.** You should create a grid that helps you compare the four you need to know.

The Assumptions underlying P.C.

1. There are many buyers in the industry.

- No individual buyer can influence, by his/her own actions, the market price of the goods.
- Each individual firm is a price taker.
- Each individual buyer acts independently.

2. There are many sellers in the industry.

- No individual seller can influence, by his/her own actions the market price of the goods.
- Each individual firm is a price taker.
- Each individual seller acts independently.

3. The goods are homogeneous.

- The goods, which are supplied by the producers, are exactly the same/ identical.
- Thus it is pointless for firms to advertise.

4. There is freedom of entry to and exit from the industry.

- Firms already in the industry cannot prevent new firms from entering the industry.
- No barriers to entry/exist within the industry.

5. Perfect knowledge as to profits and prices.

- In the market everyone concerned has perfect knowledge as to profits made by other firms in the industry.
- Consumers are fully aware of the prices being charged for the products.

6. Each firm tries to maximise profits.

- The aim of each firm is to produce that quantity where $MC = MR$.

7. Firms face a perfectly elastic supply of factors of production.

- If a firm wants to increase output it can do so and acquire the necessary factors of production at the existing price i.e. a scarcity of factors of production will not arise, thereby pushing up price.

8. No collusion exists on the market.

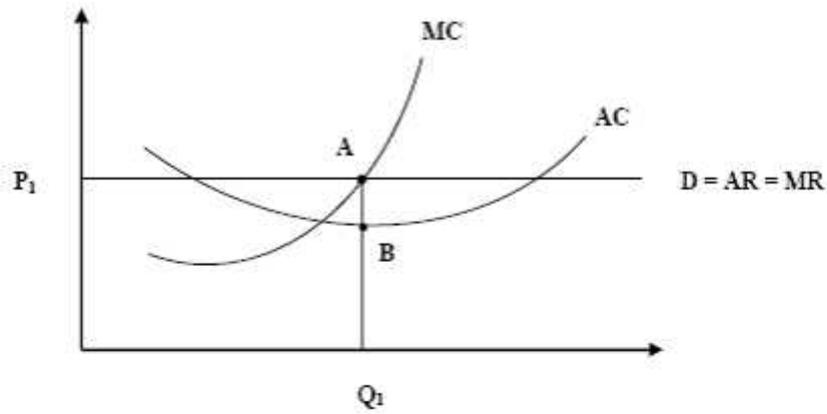
- No collusion exists between buyers or sellers of the good. Buyers do not group together with other buyers or sellers do not group together with other sellers in order to influence the price at which the good is sold.

A firm operating under conditions of perfect competition is a **'price taker'**.

Explain the concept of being a 'price taker'.

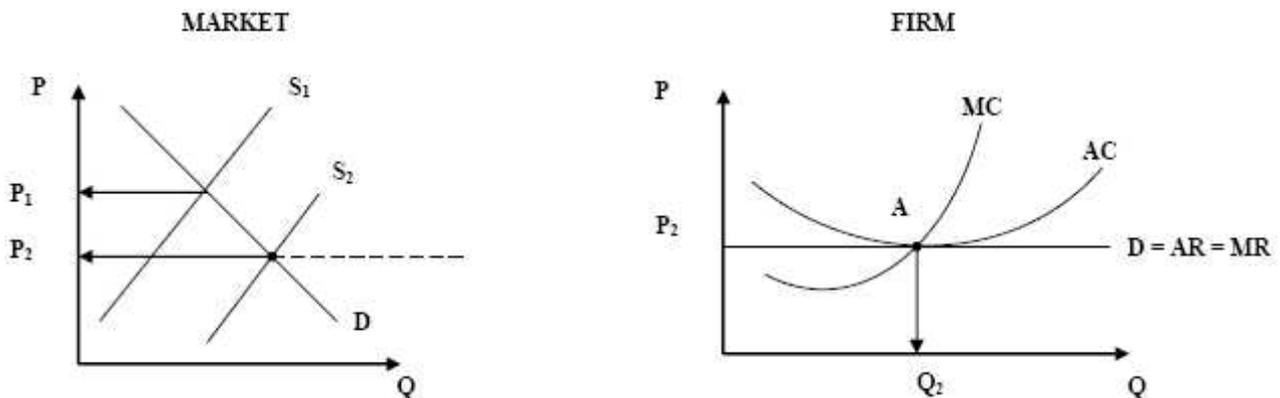
This means that the individual firm must accept the price as it is set on the market.

Each firm supplies such a tiny fraction of the market it cannot influence the market price. Explain, with the aid of labelled diagram, the equilibrium position of a firm in **short run perfect competition**.



<i>Diagram</i>	<i>Explanation</i>
• MC curve	• At point A: $MC = MR$
• AC curve	• The firm produces Q_1
• $D = AR = MR$	• Firm will sell this output at P_1
• Point A	• Firm will earn SNP's because $AR > AC$.
• P_1	
• Q_1	
• Cost is at point B.	

With the aid of a labelled diagram (s), explain the impact which the entry of new firms would have on the market and on the equilibrium position of this firm.

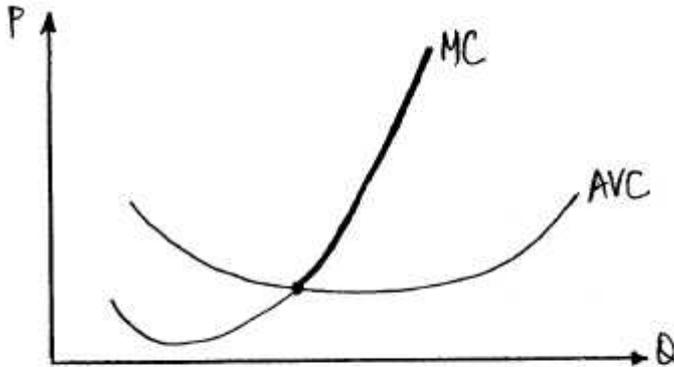


Market and Individual Firm.

Mkt. Diagram	Firm Diagram	Explanation Key Points
	• P axis	• Market supply curve shifts out to the right.
	• Q axis	• Market price falls / the firm's D/C falls
• D	• AC	• Firm will now produce a smaller quantity.
• S1	• MC	• Amount of SNP's earned will fall / be eliminated.
• S2	• $D = AR = MR$	
• P1	• P2	
• P2	• Q2	
	• Equilibrium point	

Describe the supply curve of the perfectly competitive firm.

In the short run the firm must cover its variable costs and make some contribution, however small, to fixed costs. Therefore the firm will supply any amount over the AVC as follows:



- The short run supply curve is that part of the Marginal Cost Curve above the lowest point of the Average Variable Cost .

Why don't perfectly competitive firms advertise?

1. Homogeneous goods

Because the goods are identical, and no differences exist, there is no point in advertising.

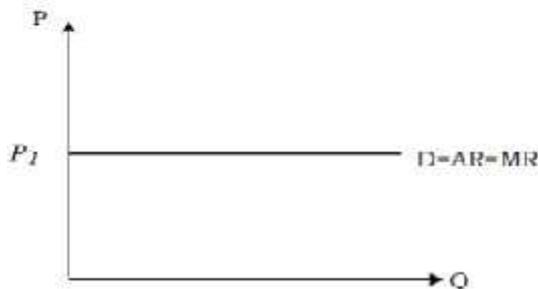
2. Increased costs / no additional revenue

If a firm advertises it would increase its own costs and decrease its profits / gain no additional revenues for itself.

3. Benefits the entire industry

Advertising by a single firm would not just benefit this firm, but the entire industry.

The diagram below represents the demand curve facing a firm in Perfect Competition.



This demand curve is;

(✓ correct answer)

- Unitary Elastic
- Perfectly Inelastic
- **Perfectly Elastic**

State the reason for your choice:

- Any deviation in price from P_1 will result in quantity demand falling to zero.

Price Determination under Perfect Competition

Under perfect competition, many factors influence the determination of the price of goods. In this article, we will look at the equilibrium of the industry and the equilibrium of a firm as important factors behind price determination under perfect competition.

Equilibrium of the Industry under Perfect Competition

In economic terms, an industry consists of many independent firms. Each firm has a number of factories, farms or mines, as required. Each such firm in an industry produces a homogeneous product. Equilibrium of the industry happens when the total output of the industry is equal to the total demand. In such a scenario, the prevailing price of a commodity is its equilibrium price.

We know that under competitive conditions, the interaction of demand and supply determines the equilibrium price as shown below:

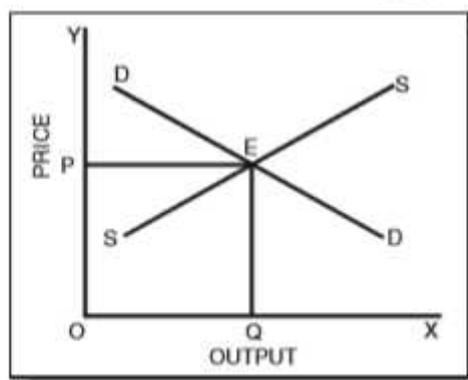


Fig. 1 : Equilibrium of a competitive industry

In Fig. 1 above, OP is the equilibrium price. Further, OQ is the equilibrium quantity sold at that price. Now, the equilibrium price is the price at which both the demand and supply are equal. In other words, no buyer, who wanted to buy at that price, goes dissatisfied and no seller, who wanted to sell his goods at that price, goes dissatisfied either.

Note that with the demand remaining the same, if the price is higher or lower than OP, then the market is not in equilibrium. Also, if goods are lesser or higher than the demand, the equilibrium is not attained.

Equilibrium of the Firm under Perfect Competition

A firm is in equilibrium when it maximizes its profits. Hence, the output that offers maximum profit to a firm is the equilibrium output. When a firm is in an equilibrium, there is no reason to increase or decrease the output.

In a competitive market, firms are price-takers. The reason being the presence of a large number of firms who produce homogeneous products. Therefore, firms cannot influence the price in their individual capacities. They have to follow the price determined by the industry.

The following figure shows a firm's demand curve under perfect competition:

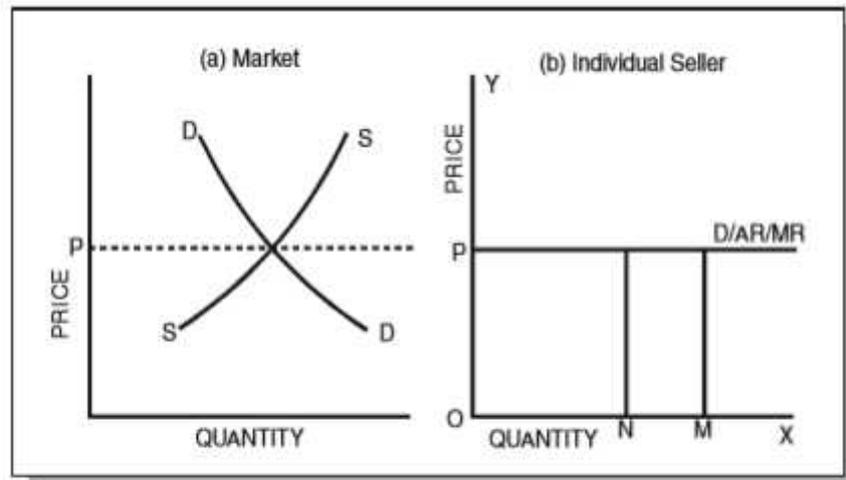


Fig. 2 : The firm's demand curve under perfect competition

From Fig. 2 above, you can see that the industry price, OP , is fixed throughout the interaction of demand and supply of the industry. Firms have to accept this price. Hence, they are price-takers and NOT price-makers. Hence, they cannot increase or decrease the price OP .

Therefore, the line P acts as a demand curve for such firms. Hence, in a perfect competition, the demand curve of an individual firm is a horizontal line at the level of the industry-set market price. Firms have to choose the level of output that yields maximum profit.

Conditions for the equilibrium of a firm

To attain an equilibrium position, a firm must satisfy the following two conditions:

1. They must ensure that the marginal revenue is equal to the marginal cost ($MR = MC$).
 1. If $MR > MC$, the firm has an incentive to expand its production and sell additional units.
 2. If $MR < MC$, the firm must reduce the output since additional units add more cost than revenue.
 3. The firm gets maximum profits only when $MR = MC$.
2. The MC curve must have a positive slope and cut the MR curve from below.

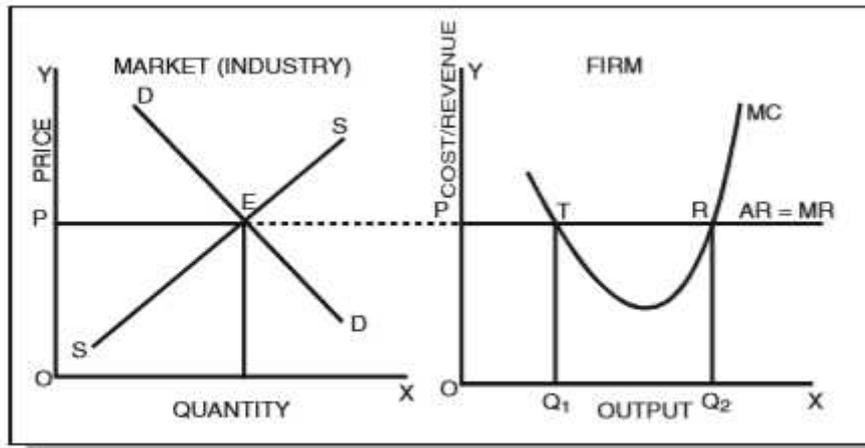


Fig. 3 : Equilibrium position for a firm under perfect competition

In Fig. 3 above, DD is the demand curve and SS is the supply curve. They equilibrate at point E and set the market price as OP. Under perfect competition, firms adopt OP as the industry price and consider the P-line as the demand curve or AR – average revenue curve (perfectly elastic at P).

Since all units are equally priced, the MR curve is a horizontal line and is equal to the AR line. Observe that the curve MC cuts the MR curve at two points – T and R. At point T, the MC curve cuts the MR curve from above whereas at point R it cuts the MR curve from below. Therefore, according to the conditions of equilibrium of a firm, point R is the point of equilibrium and OQ_2 is the equilibrium level of output.