MONOPOLY

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Features of monopolies

- One seller

In a monopolistic market structure, there is only one firm in charge of the entire market supply.

- A unique product without close substitutes

The monopolist sells a good which is unique and has no close substitutes. In other words, he has no competitor in the market.

Features of monopolies (2)

- High barriers to entry

It is extremely difficult (and sometimes impossible) for entrepreneurs to enter a monopolistic market. Entry into the market is highly restricted and is the main reason why a monopolist can enjoy monopoly power.

- The firm is a price maker

The price of the good sold in a monopolistic market is set by the monopolist, not by the forces of demand and supply in the market.

How are monopolies created?

- From what we just learnt about the features of a monopoly, we understand that in order to be a monopolist, one needs to:

- Have something unique to sell
- Prevent others from entering the market (i.e. high barriers to entry)

- There are two main kinds of barriers that prevent prospective competitors from ever entering a market:

- Natural barriers
- Government-created barriers

Natural barriers

- Control of resources

If a firm has control over a resource that is essential in the production process, then the firm is a natural monopoly. Other firms will not be able to use the same resource and compete.

- Problems in raising capital

Monopolies are usually big and well established firms. Therefore, it is very unlikely for banks to provide the necessary capital to entrepreneurs in order to create competing firms.

Natural barriers (2)

- Economies of scale

Government-created barriers

- Licensing

The Government may be inclined to provide a single firm exclusive rights to operate in a specific industry. In many communities, trash collection services and electricity are monopolies.

- Patents and copyright law

A copyright is the Government's assurance that no one else can use a firm's (or an artist's) work without their permission. The same goes with patents. When a pharmaceutical firm develops a new drug, patents give the firm unique rights to sell and distribute the drug.

The demand curve in a monopoly

- The law of demand states that when the relative price of a good goes up, the quantity demanded of the good falls ceteris paribus.
- In a monopoly, the firm is a price maker. It sets the price of the good it sells.
- Consumers will buy lower quantities of the good for higher prices set by the firm.
- Therefore, the demand curve in a monopoly is downward sloping.

The monopolist’s marginal revenue

Total Product (Q)	Price (P) ($)	Total Revenue (TR) ($)	Marginal Revenue (MR) ($)
0	100	0	-
1	90	90	90
2	80	160	70
3	70	210	50
4	60	240	30
5	50	250	10
6	40	240	-10
7	30	210	-30
8	20	160	-50
9	10	90	-70
10	0	0	-90

The monopolist’s marginal revenue (2)

- Unlike the competitive firm, there is an inverse relationship between the price and the output of the monopolist.
- At first, the total revenue of the monopolist ($TR = P * Q$) rises when the price falls.
- However, the total revenue begins to decline when the price is too low.
- The marginal revenue starts with a positive value and declines.
- It reaches zero and continues to decline below zero.

The monopolist’s marginal revenue (3)

- In order to sell more goods, the firm must lower its price.
- However, the lower price is available to both new and existing customers.
- The impact on total revenue depends how many new customers are attracted by the decline in price.

Graphically…

- The market demand curve is downward sloping.
- The marginal revenue curve is also downward sloping and it lies below the demand curve.

The monopolist’s profit-maximizing rule

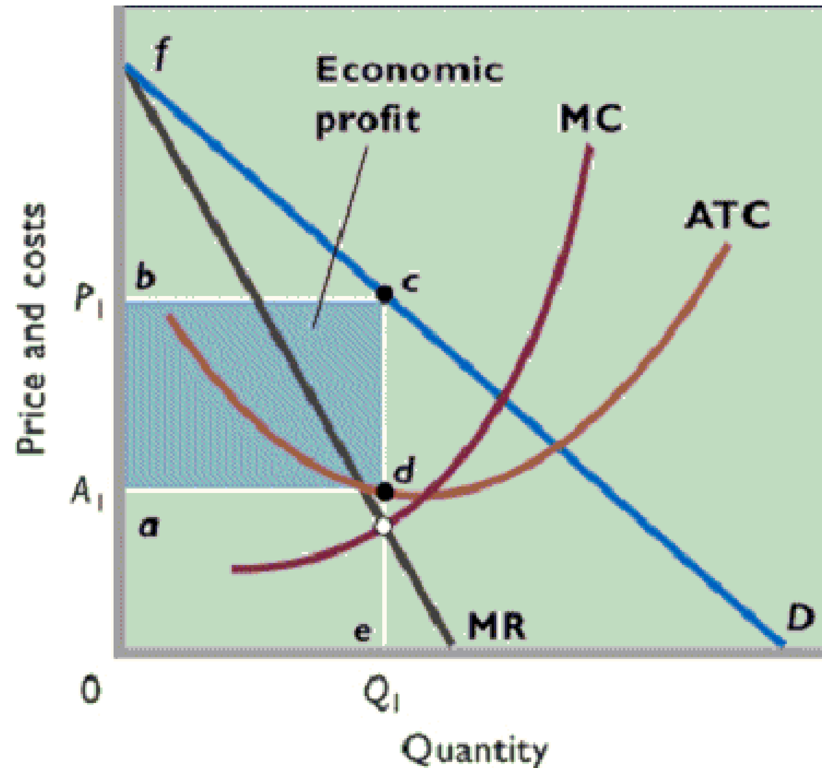
- Just like the competitive firm, the monopolist maximizes profit where marginal revenue is equal to marginal cost (MR = MC).
- This is the point where the firm has no more profit potential.
- Producing beyond this point hurts the firm because it decreases its total profit.
- The monopolist has the same short-run cost curves as a competitive firm:

- The Average Variable Cost (AVC) curve
- The Average Total Cost (ATC) curve
- The Marginal Cost (MC) curve
- The Average Fixed Cost (AFC) curve

Understanding Average Total Cost, Price and Average Profit/Loss

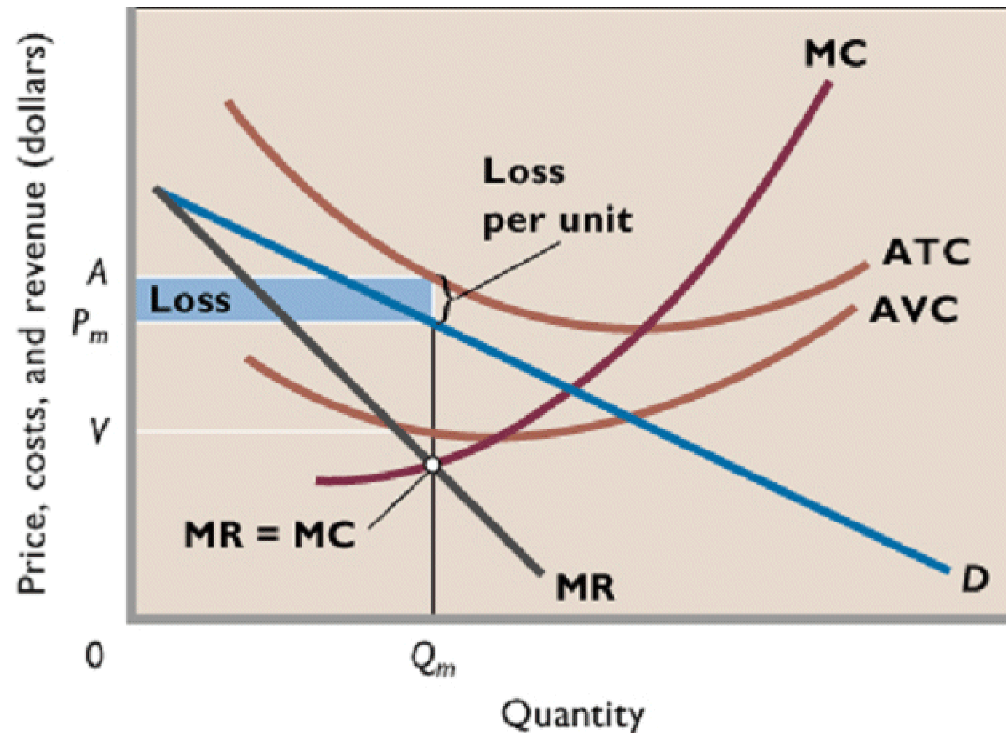
- Remember that ATC = TC/Q
- Average Total Cost is the cost per unit of output produced.
- In other words, it is the amount of money the producer spends on average to produce one unit of output.
- The price of a good (P) is the money the producer receives for selling one unit of output.
- Therefore, P – ATC = Average Profit/Loss
- This is the profit/loss made by selling one unit of output.
- Total Profit/Loss can then be calculated by multiplying the Average Profit/Loss by the number of goods sold.
- Total Profit/Loss = (P – ATC) * Q

Monopolistic firm in the short-run: Economic profit



- The profit-maximizing condition is MR = MC.
- At this point, the corresponding profit-maximizing output is Q_1.
- Given the demand curve and Q_1, the price of the product is P_1.
- The corresponding Average Total Cost given Q_1 is A_1.
- In this case, the price of the good is higher than the Average Total Cost (i.e. $P_1 > A_1$), so the monopolist makes an average profit equal to $P_1 - A_1$.
- The total profit made by the monopolist is the area of the abcd rectangle in blue.

Monopolistic firm in the short-run: Economic loss



- The profit-maximizing condition is MR = MC.
- At this point, the corresponding profit-maximizing output is Q_m.
- Given the demand curve and Q_m, the price of the product is P_m.
- The corresponding Average Total Cost given Q_m is A.
- In this case, the Average Total Cost of the good is higher than the price (i.e. $A > P_m$), so the monopolist makes an average loss equal to $A - P_m$.
- The total loss made by the monopolist is the area of the rectangle in blue.

Monopolies and the society

- There are very high barriers to entry in monopolistic markets.
- Consequently, monopolies still make an economic profit in the long-run.
- This fact is good for the monopolistic firm.
- However, is it beneficial for the society?
- Can we trust monopolies?

The problems with monopolies

- Low output level and high price

- As a single producer of a particular good, the level of output of the monopolist is too low.
- Coupled with the low output, the monopolist’s price is too high.
- Therefore, access to the monopolist’s output is very restricted (in terms of quantity and in terms of price)

The problems with monopolies (2)

- Lack of choices for consumers

- In a monopolistic market, there is no variety of goods
- Consumers are restricted to the only type of good produced by the monopolist.
- There is no alternative goods they can switch to.

The problems with monopolies (3)

- Rent-seeking

- There is rent-seeking when resources are used to secure monopoly rights through the political process.
- Monopolists are powerful and they often use their power to lobby Governments and kill any form of competition.
- This is detrimental to other businessmen and to consumers.

Solutions to the problems of monopolies

- Anti-trust laws

- Anti-trust laws are laws that are aimed at breaking up monopolies.
- They can be in the form of pressure put on monopolies to break up into smaller firms.
- The Government may also finance entrepreneurs to compete existing monopolies.

Solutions to the problems of monopolies (2)

- Reducing trade barriers

- Trade barriers such as tariffs, quotas, … are used to prevent international competition and to protect domestic businesses.
- Reducing trade barriers invites foreign competition in the domestic economy and reduces the existing monopoly power.

Solutions to the problems of monopolies (3)

- Regulating markets

- When a firm is a natural monopoly (e.g. controls a rare resource), it is inefficient to break it up because it will raise the production costs for each firm.
- In this case, it is more appropriate to regulate the market.
- One example of Government regulations is the implementation of a Government ceiling.

You should now be able to…

- State and explain the features of monopolies
- Explain the main bases for the creation of monopolies
- State and explain the profit-maximizing rule for a monopolist
- Determine the slope of the demand curve in a monopolistic market and explain it (i.e. the slope)
- Show graphically how monopolies make an economic profit/loss
- Explain why monopolies make an economic profit in the long run
- State and explain some problems related to monopolies and possible solutions