

# Week 9 & 10

## Monopoly & Private and Government Monopolies

# Main Characteristics of Monopoly

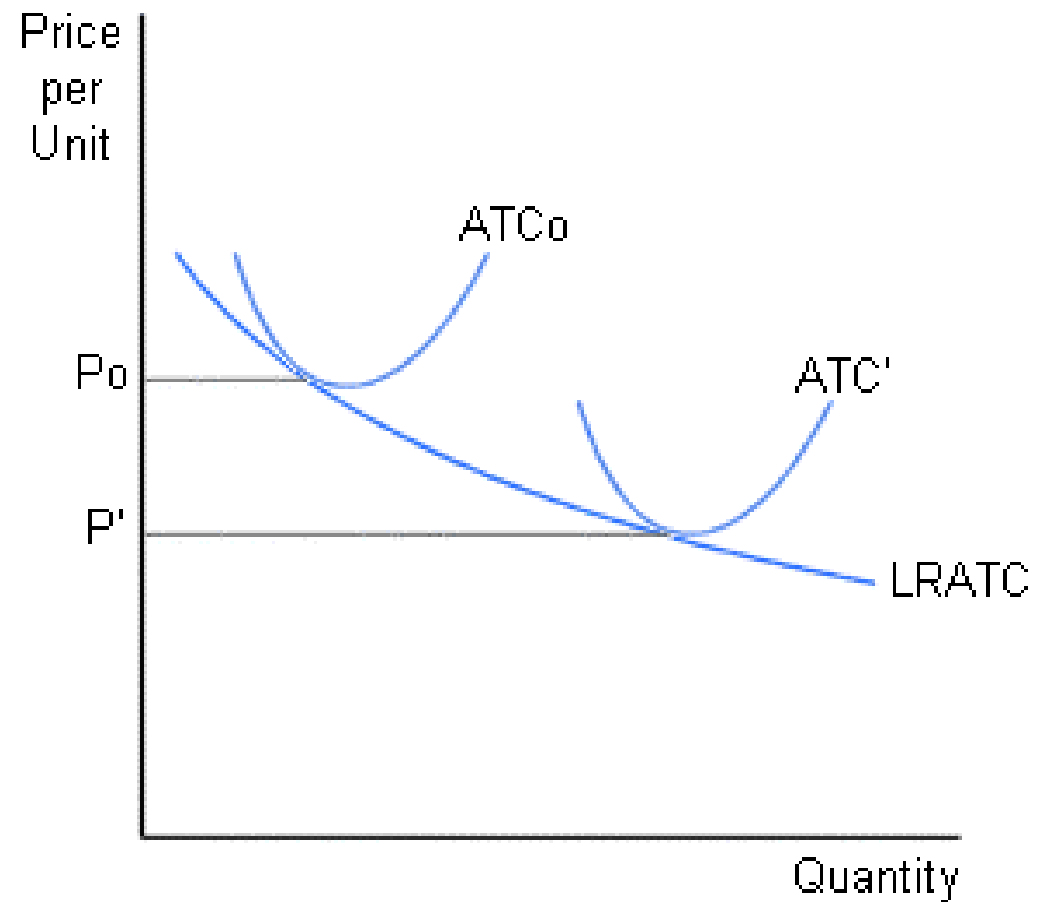
- single seller for a product
- many buyers are available
- barriers to entry
- no close substitutes
- Monopolist can only control price or quantity but not both

# Barriers to entry

- economies of scale
- actions by firms
- actions by government

# Economies of scale – natural monopolies

- Natural monopolies are often regulated monopolies



## Actions by firms to create and protect monopoly power

- patents and copyrights,
- high advertising expenditures result in high sunk costs (costs that are not recoverable on exit), and
- illegal actions designed to restrict competition.

# Monopolies created by government action

- patents and copyrights,
- government created franchises, and
- licensing.

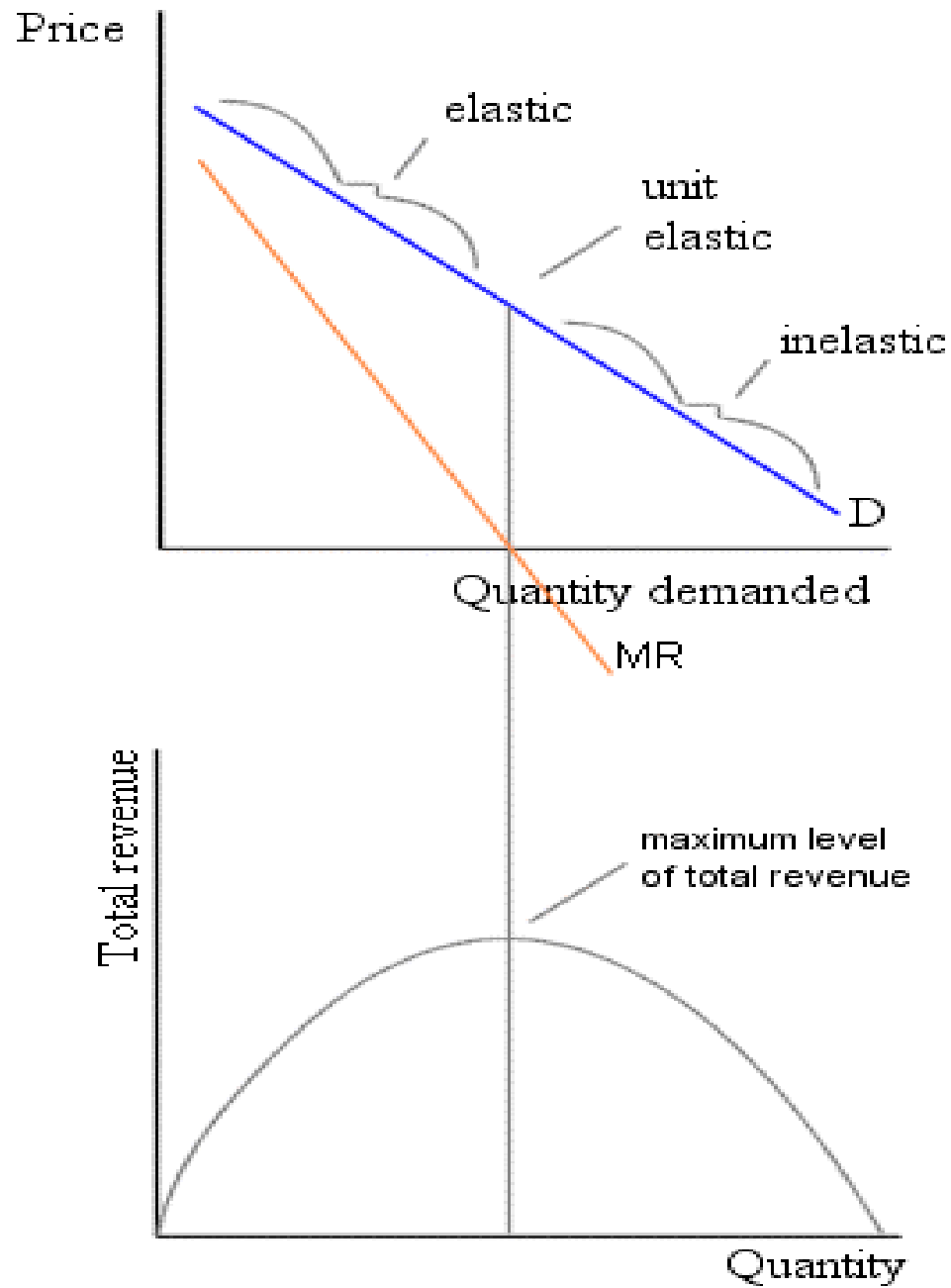
# Local monopoly

- Local monopoly – a monopoly that exists in a local geographical area (e.g., local newspapers)

## Price elasticity and MR

- As noted earlier, since the demand curve facing a monopoly firm is downward sloping,  $MR < P$
- $MR > 0$  when demand is elastic
- $MR = 0$  when demand is unit elastic
- $MR < 0$  when demand is inelastic

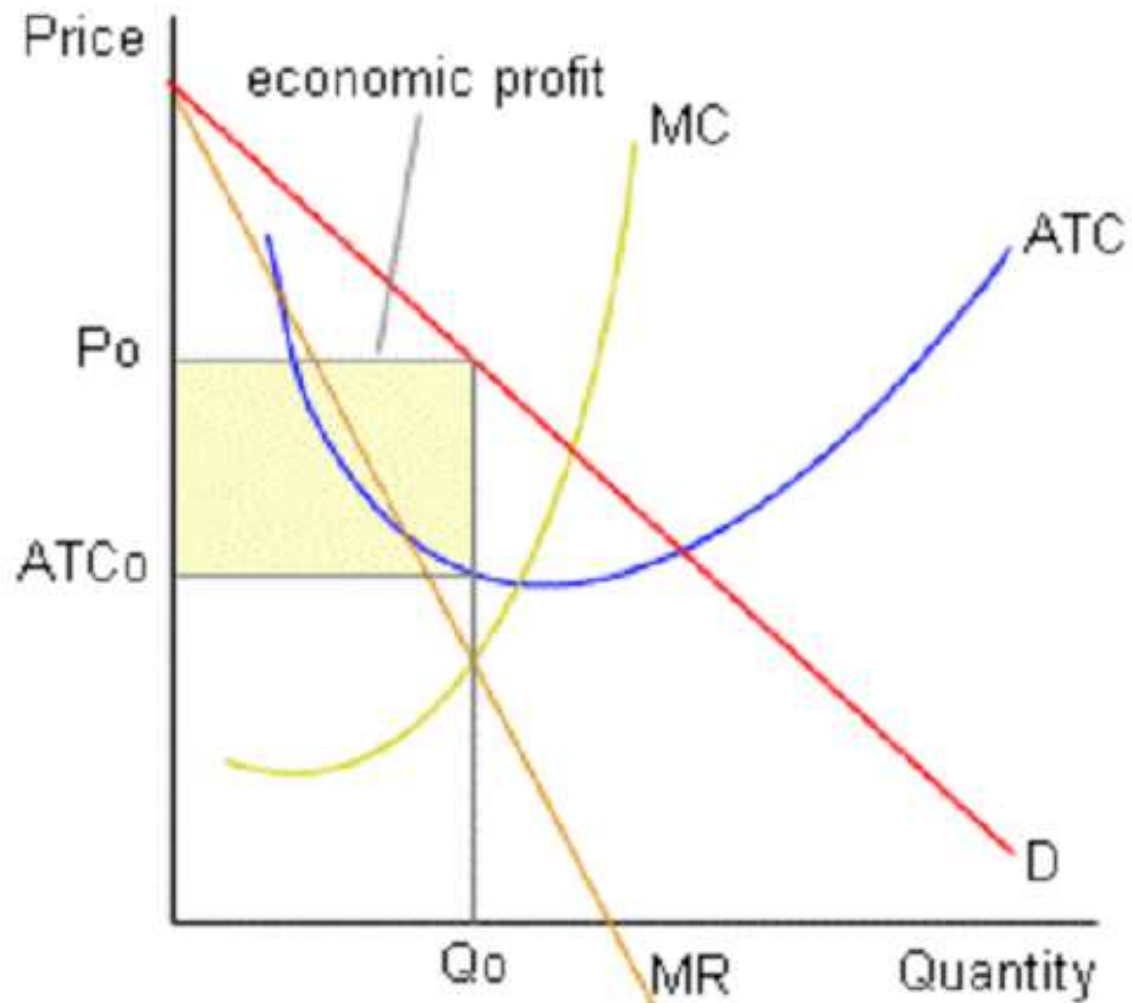
# Elasticity and total revenue



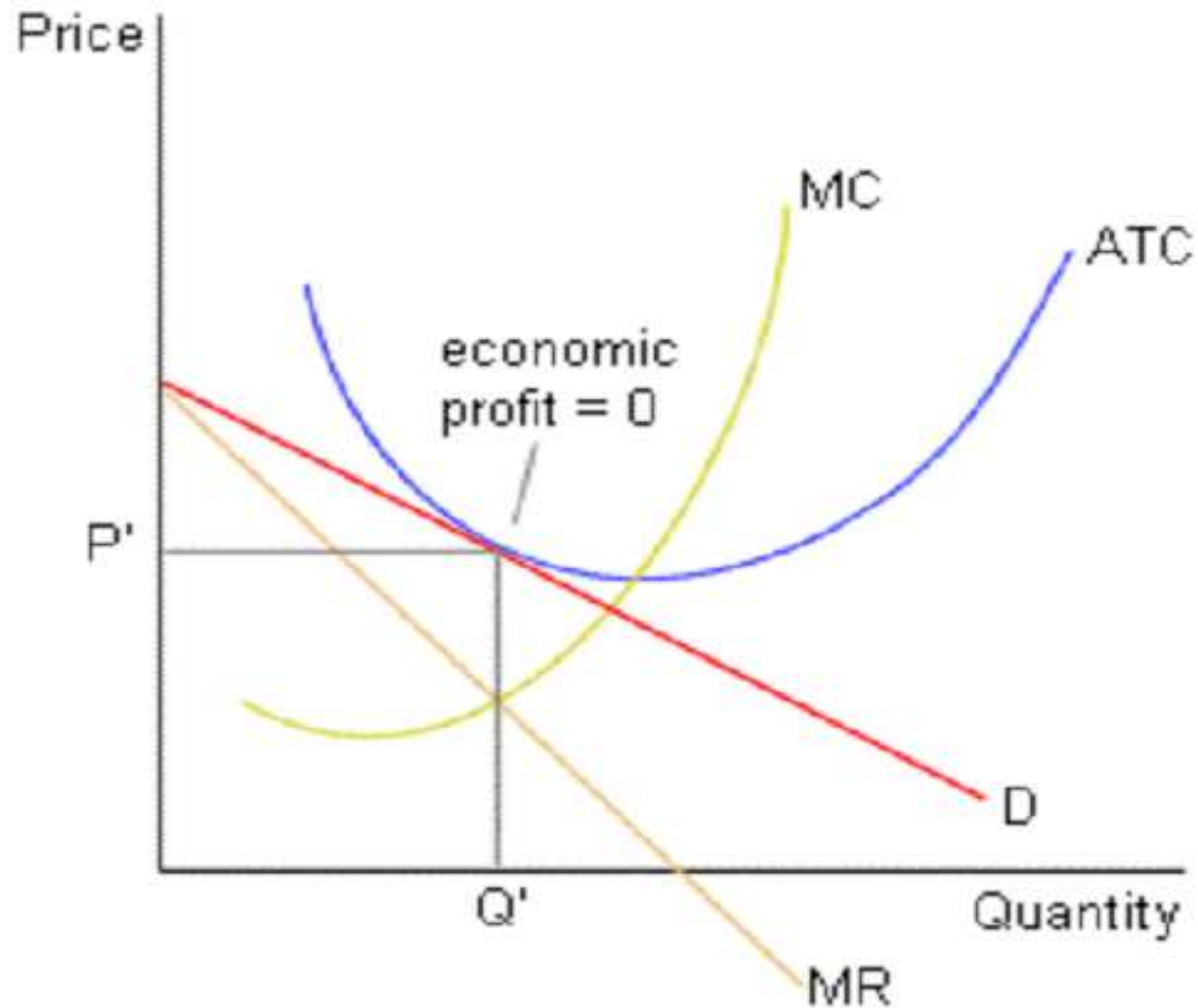
## Average revenue

- As in all other market structures,  $AR=P$  (note that  $AR = TR/Q = (P \times Q) / Q = P$ )
- The price given by the demand curve is the average revenue that the firm receives at each level of output.

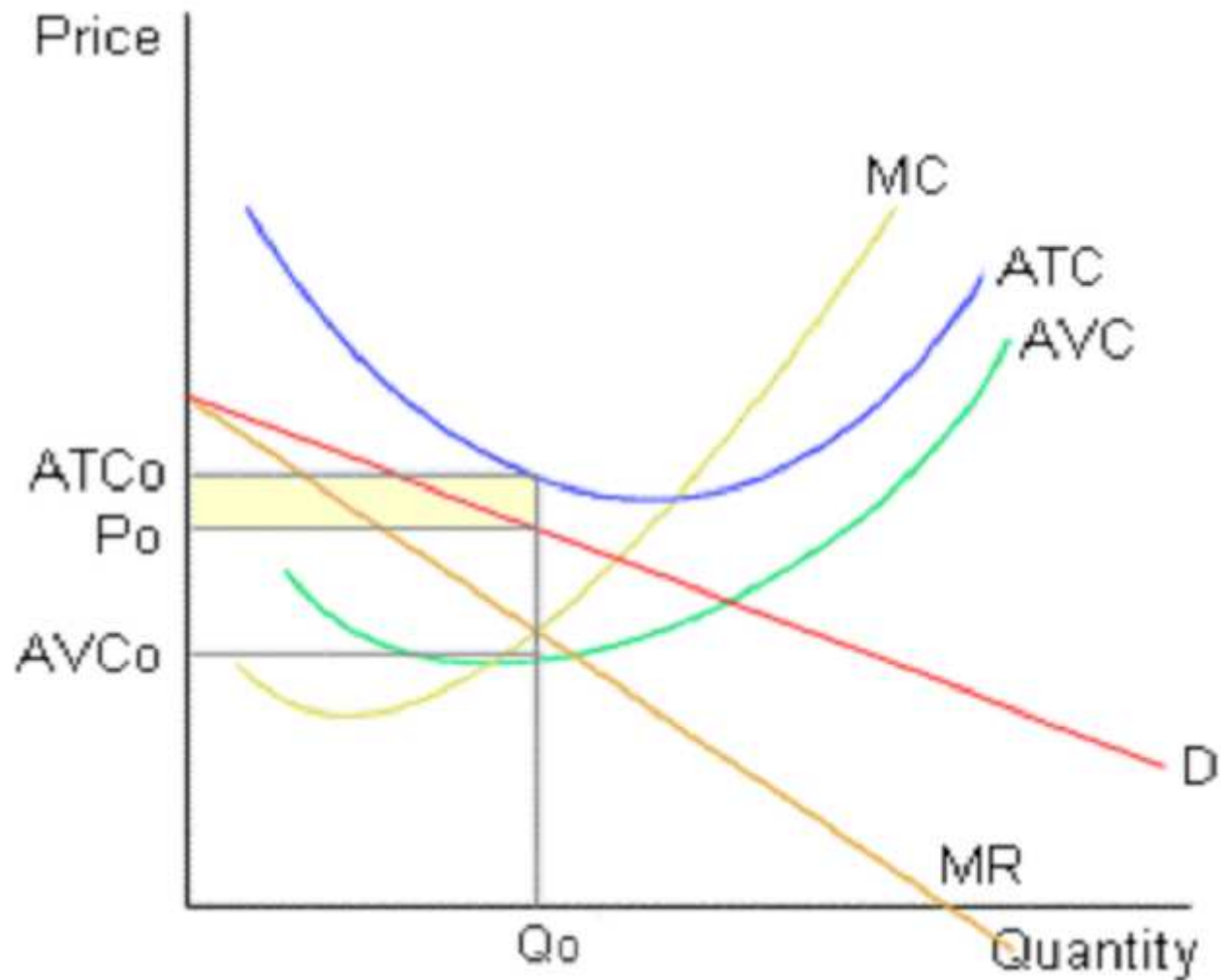
# Monopoly receiving supernormal profits



# Monopoly receiving normal profits



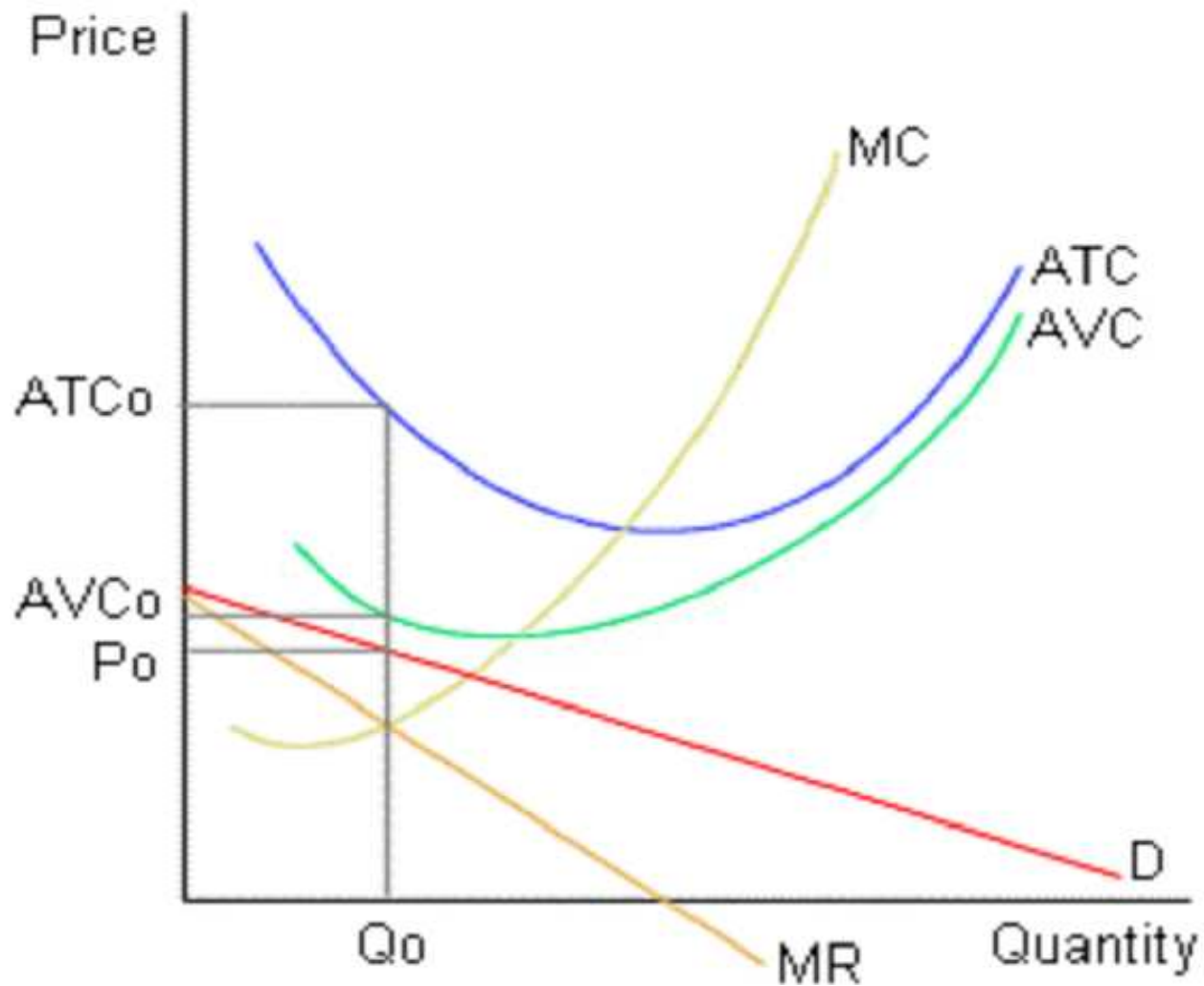
# Monopoly receiving subnormal profits - loss



# Conclusion

- In both long run and short run, the monopoly firm will be earning supernormal profits because there is no competition and there are barriers to entry.

# Monopolist that shuts down in the short run



# Monopoly price setting

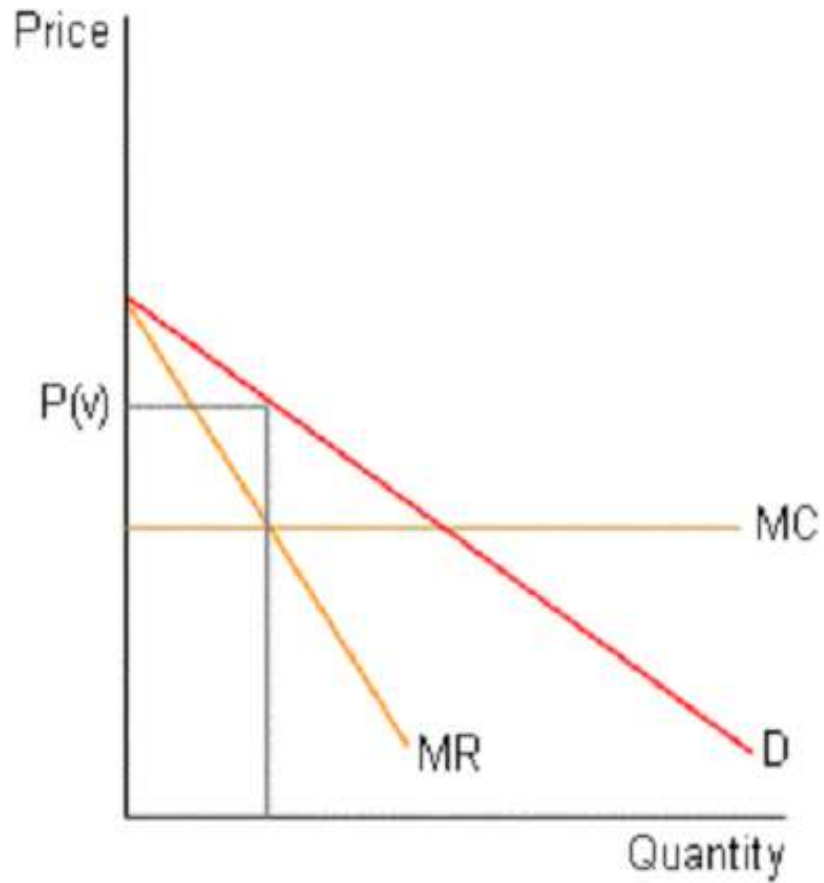
- There is a unique profit-maximizing price and output level for a monopoly firm.
- It is optimal to produce at the level of output at which  $MR = MC$  and to charge the price given by the demand curve at this output level.
- Charging a higher (or lower) price results in lower profits.

# Price discrimination

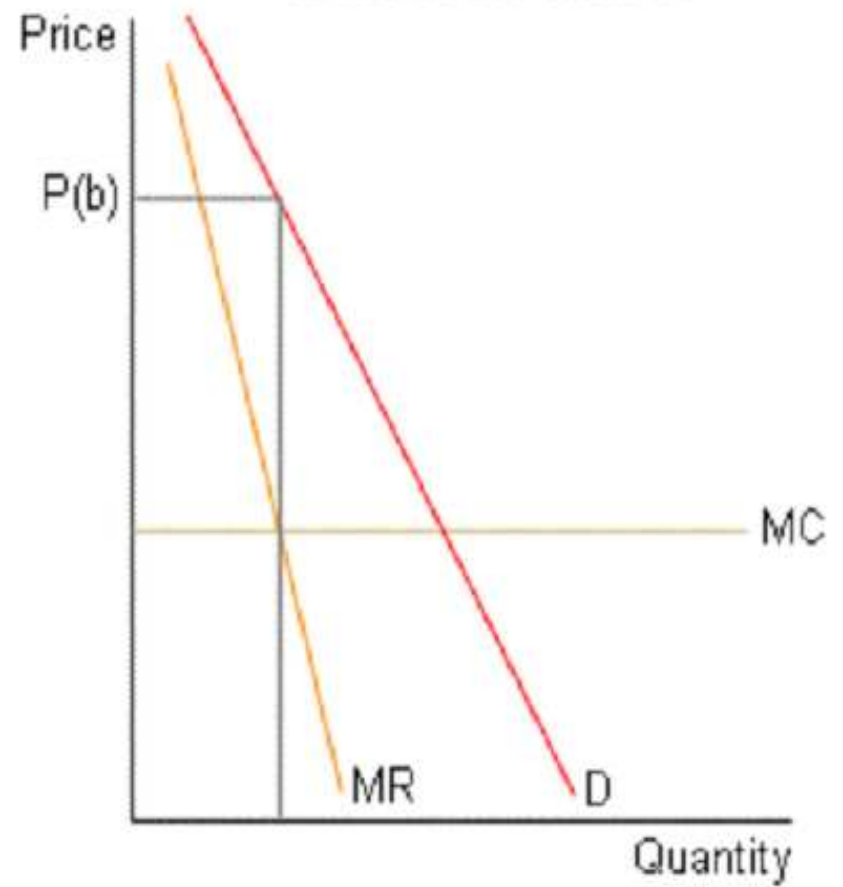
- In imperfectly competitive markets, firms may increase their profits by engaging in **price discrimination** (charging higher prices to those customers with the most inelastic demand for the product).
- Necessary conditions for price discrimination:
  - the firm must not be a price-taker
  - firms must be able to sort customers by their elasticity of demand
  - resale must not be feasible

# Example: air travel

## Vacation Travel



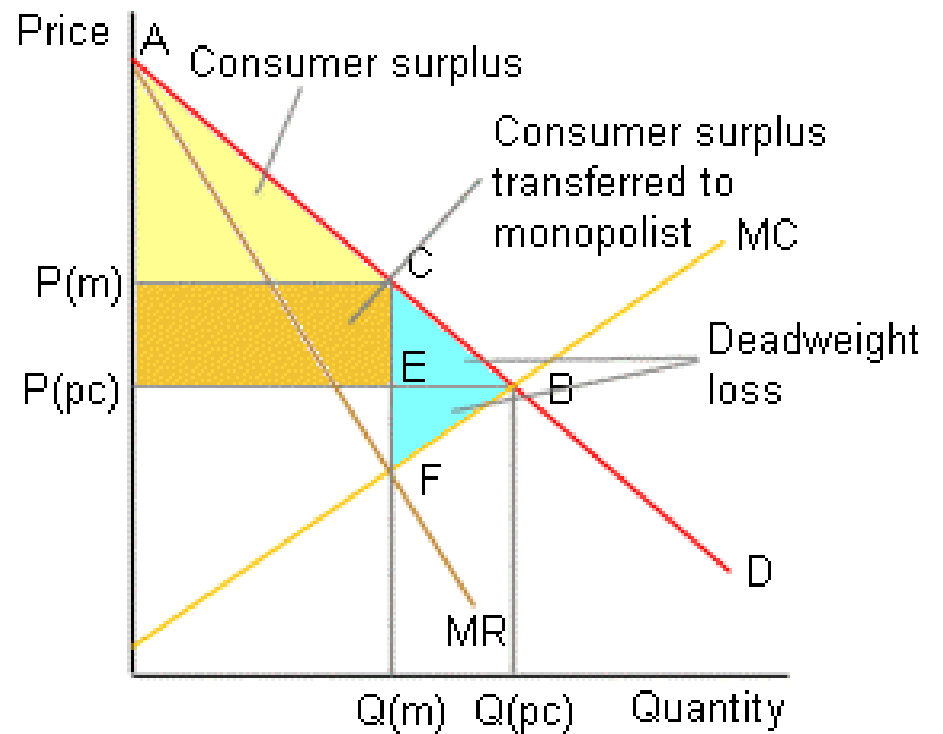
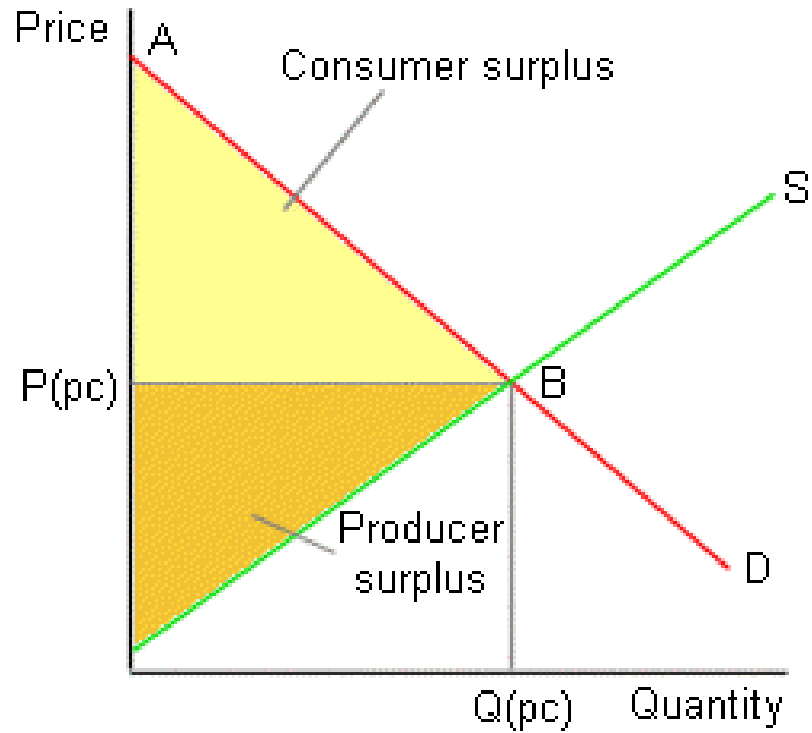
## Business Travel



# Dumping

- If firms practice price discrimination by charging different prices in different countries, they are often accused of dumping in the low-price country.
- **Predatory** dumping occurs if a country charges a low price initially in an attempt to drive out domestic competitors and then raises prices once the domestic industry is destroyed.
- There is little evidence of the existence of predatory dumping.

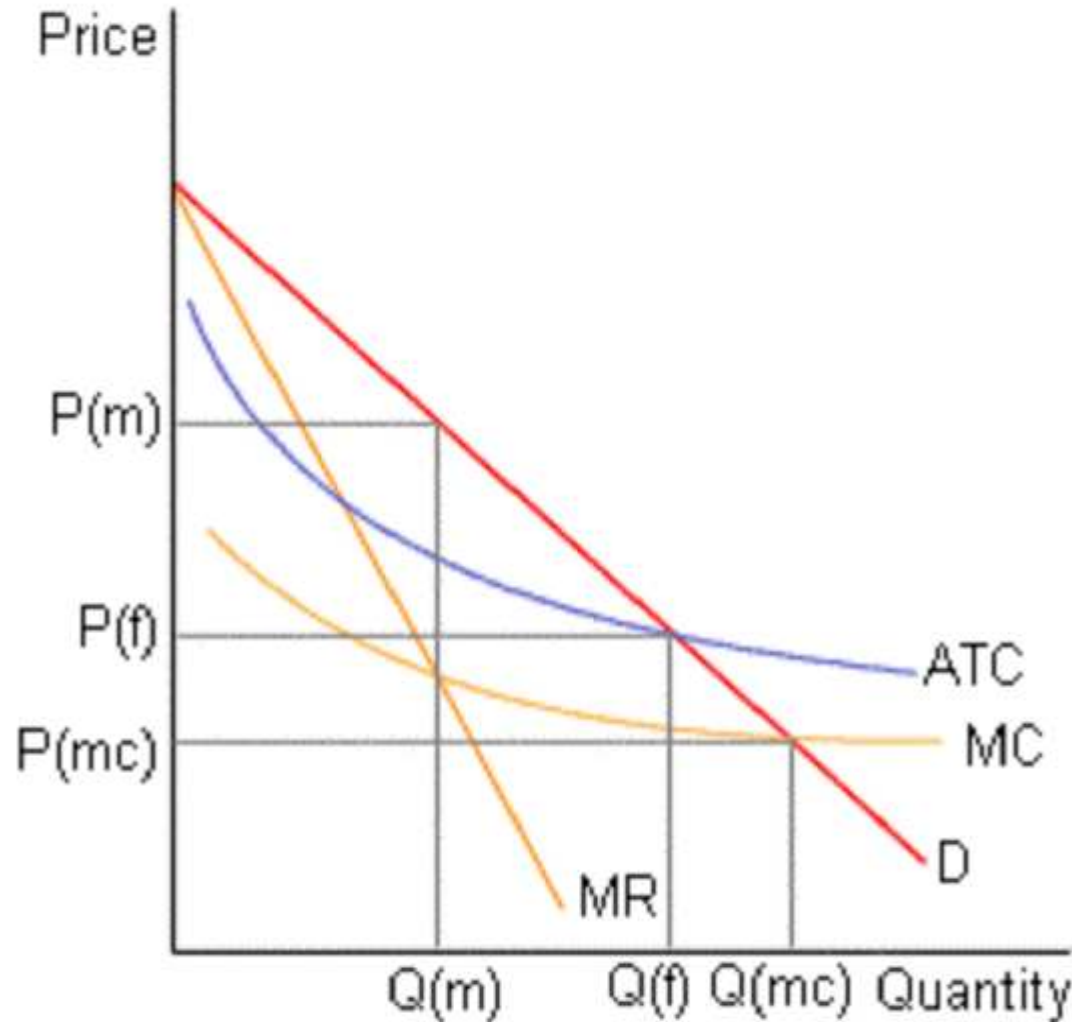
# Deadweight loss due to monopoly



## Other costs associated with monopoly

- X-inefficiency – occurs if firms do not have an incentive to engage in least-cost production (since they are not faced with competitive pressure).
- Rent-seeking behaviour – the cost of using resources (such as lawyers, lobbyists, etc.) in an attempt to acquire monopoly power. This behaviour does not benefit society and diverts resources away from productive activities.

# Regulation of natural monopoly



- monopoly outcome:  $P(m)$ ,  $Q(m)$
- marginal-cost pricing:  $P(mc)$ ,  $Q(mc)$
- “fair-rate of return” pricing system:  $P(f)$ ,  $Q(f)$