



## Lesson plan

**Course Name: Economics II**

**Supervisor: Prof. PhDr. KRČ Miroslav, CSc.**

**Lecturer: Ing. Martin Pop**

**Topic: Firm behavior and supply shaping, part III.**

### **Course Objectives:**

The aim of the third lecture is to explain the principles of monopoly output and prices decision making. The second goal is to explain decision on output and prices in monopolistic competition.

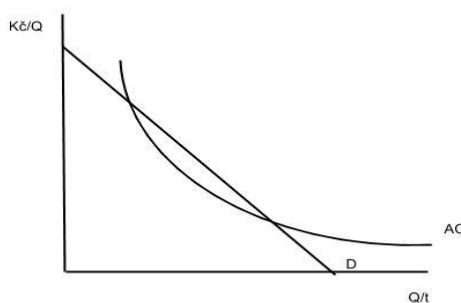
## 8. DECISION-MAKING FIRM IN IMPERFECT COMPETITION – MONOPOLY

### 8.1 Main Causes Leading to Monopoly

Monopoly market is characterized by the presence of the one company. It can influence the price or the size of the produced output (not on both simultaneously). Within microeconomic analysis is usual to assume that the company primarily choose the output size, enabling it to maximize profits.

The main barriers to entry into the industry include:

- Used manufacturing technology allows to produce at relatively low cost.
- Market demand can be satisfied with the production of the one company with a lower average cost.
- The existence of a natural monopoly in today's economic reality.
- Company controls necessary resources.
- Legal restrictions in the form of patents, copyrights, rights of authors, etc.



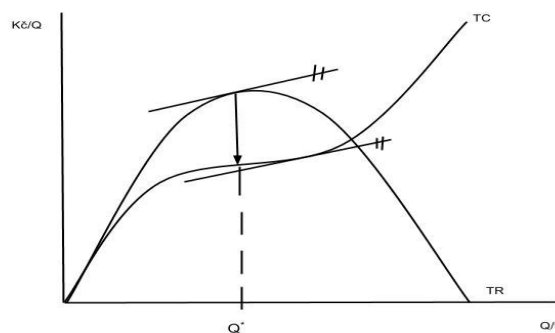
## 8.2 Monopoly Characteristics

The company has exclusive rights over its product, but it can be assumed that most products are substitutes, which can partially substitute its own product. This leads to a weakening of monopoly power.

Monopoly can choose any combination of output and prices along the demand curve, which is considered the most profitable.

## 8.3 Monopoly optimum output

A crucial role plays a fact that the revenues and their graphical representation of imperfect competition show specifics resulting from declining demand curve. Monopoly to sell an additional unit of output, not only reduces the cost of the last unit, but all units of output. Marginal revenue is declining faster than the price. Optimal output during the production monopoly maximizes profit, we find the same procedure as for the perfectly competitive firm.



## 8.4 Monopoly Pricing

There are two consequences:

- Monopoly should produce only so big output, which corresponds to the elastic part of the demand curve.  $e_{PD} < -1$ .
- The market demand is elastic.

## 8.5 Pricing by Surcharge

Price is given by:

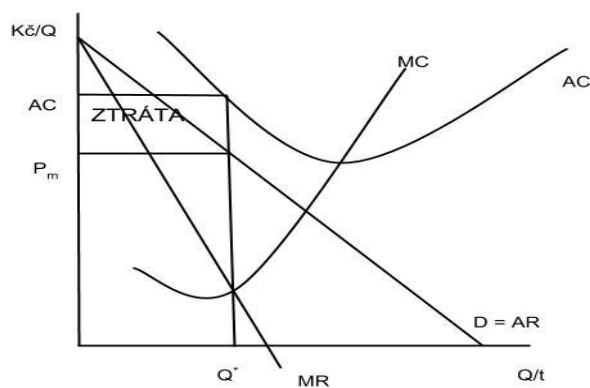
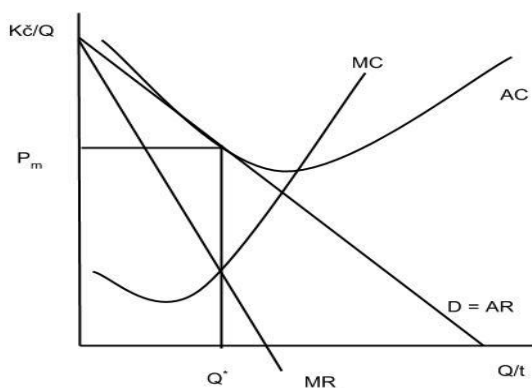
$$m = P - AC / AC$$

we assume that the company produces long-term optimal output with minimal LAC. At the point of min. LAC true  $LMC = LAC$  and the equation can be modified as follows:

$$m = P - MC / MC$$

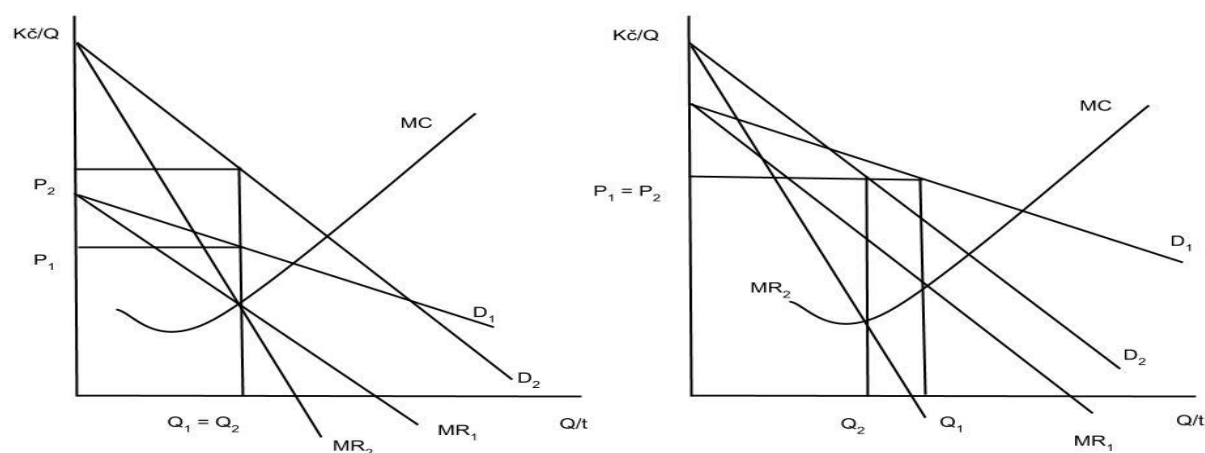
## 8.6 Monopoly Profits

Note: Some authors understand monopoly profit as a monopoly rent. Profit is their concept of factor income, which is the source of monopoly power (patents, copyrights).



## 8.7 Monopoly Supply Curve

If we wanted to build a long-term supply curve of a monopoly industry, which is identical to the long-term supply curve monopoly, there is a problem.

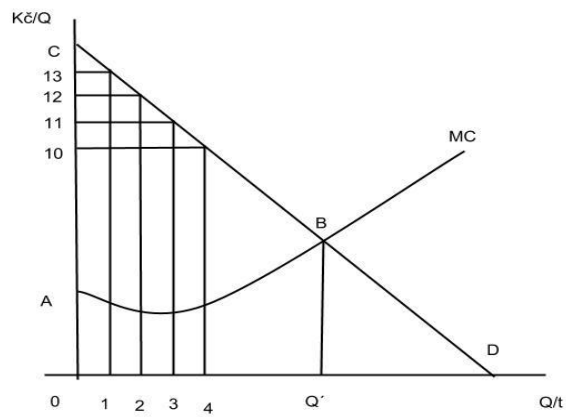


## 8.8 Price Discrimination

Monopoly has some monopoly power, allowing the use of Price discrimination strategy. The aim is to gain consumer surplus and its conversion into additional company profit. The essence of price discrimination is setting different prices for the same products. We will deal with price discrimination from the first to the third grade.

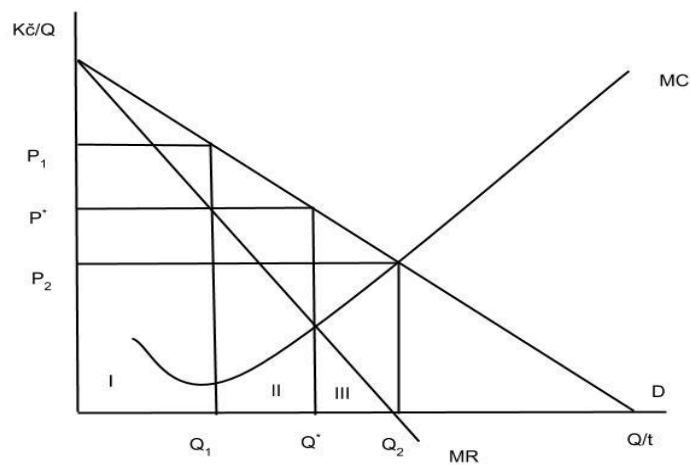
### 8.8.1. Price Discrimination of the First Grade

It represents more or less **theoretical situation** of discrimination. Monopoly provides to every consumer the maximum price they are willing to pay for each purchased unit.



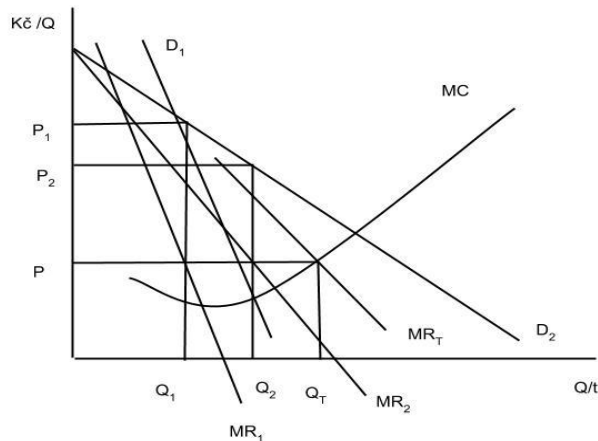
### 8.8.2 Price Discrimination of the Second Grade

It works in setting different prices for different cumulative amount of the goods (discrimination depends on the quantity sold).



### 8.8.3 Price Discrimination of the third Grade

The essence is the consumer partition into two or more groups, each of which has its own demand curve. In practice, this form is used most often.



### 8.8.4 Other Forms of Price Discrimination

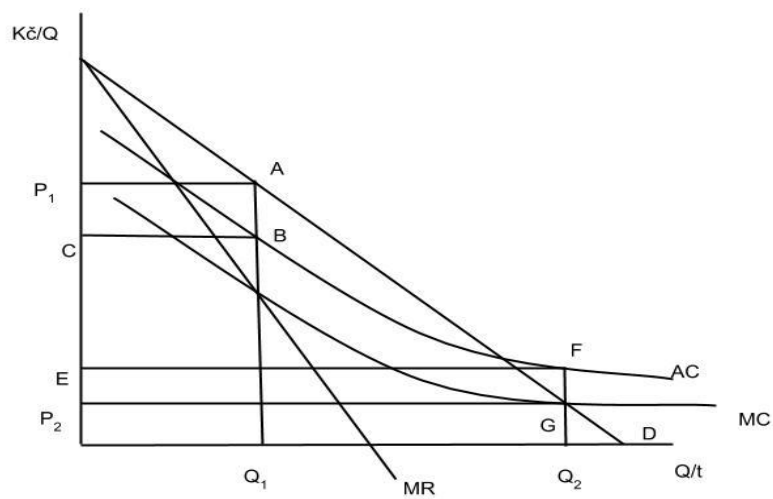
- Discrimination in time.
- Pricing at peak times.

## 8.9 Monopoly Allocation Effectiveness

It is evident that in comparison with perfect competition monopoly existence leads to a higher price and a smaller output. In the conditions of monopolized market is output derived from the excess of price over marginal cost ( $P > MC$ ).

## 8.10 Monopoly Regulation

The aim of the regulation is to eliminate the monopoly inefficiency – the deadweight costs.



## Bilateral monopoly and monopsony



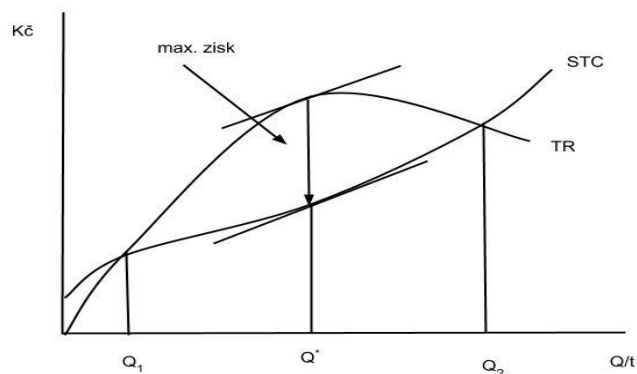
## 9. MONOPOLISTIC COMPETITION

### 9.1 Monopolistic Competition Characteristics

- Large number of manufacturers whose products are very close substitutes.
- Product differentiation.
- Barriers to entry the market.

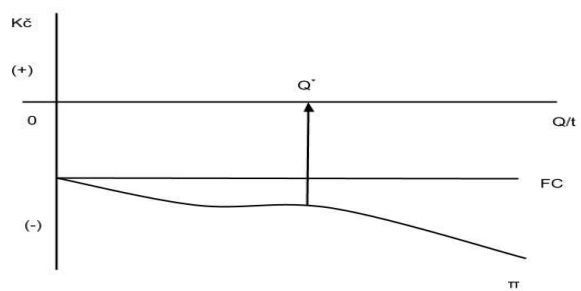
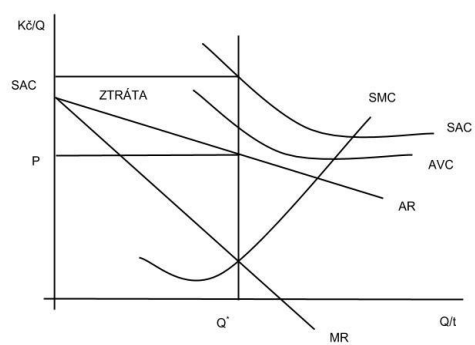
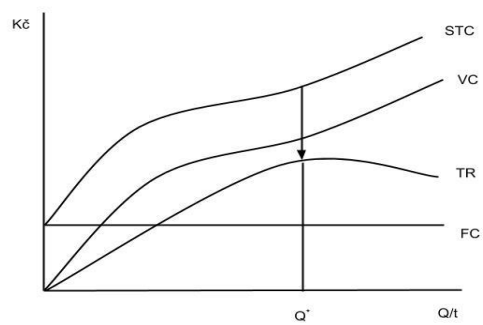
### 9.2 Profit Maximizing in the Short Run

The company, however, in the short term may be in a situation where its products are not selling, and consequently total revenues fall below the level of the total cost. As we already know from the analysis of perfectly competitive firm, the firm at that point faces a choice that despite the fact that production is unprofitable, continue it, or to terminate it.



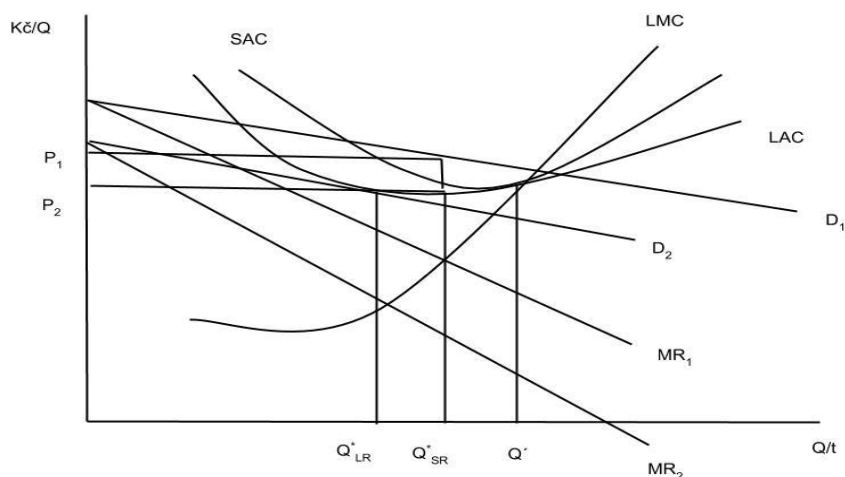
Recall that this criterion in deciding the amount of variable, respectively, average variable cost.

## The closure of the company



### 9.3 Profit Maximizing in the Long Run

There is a similar mechanism as in conditions of perfect competition.



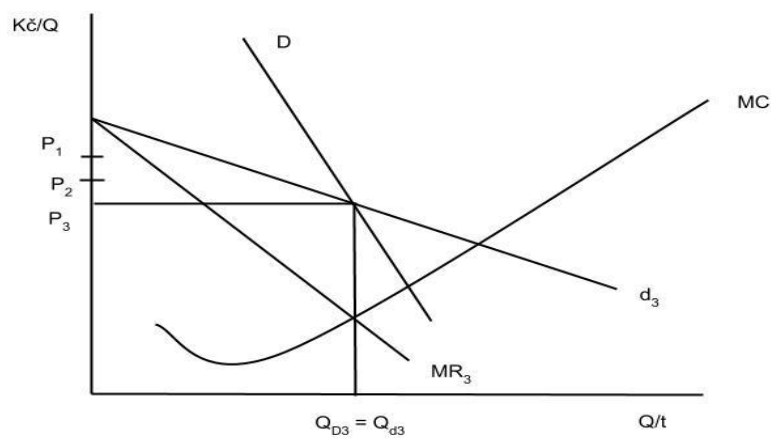
### 9.4 Chamberlin Model of Monopolistic Competition

Chamberlin uses the term "product group" as a greater number of demand curves. Product groups are seen as a group of companies producing similar products.

Three conditions of product groups existence:

- Large number of companies producing differentiated products.
- Companies independence.
- Same cost and demand curves of all companies in the group

Optimum output in the SR



## 9.5 Monopolistic Competition Effectiveness

Allocative inefficiency is analogous to the case of monopoly. Monopoly power allows to set a price above the marginal cost ( $P > MC$ ).

**List of tasks for students:**

- 1. Explain and graphically plot the monopoly output and price.**
- 2. Try to graphically illustrate alternative cases related to the question of the monopoly production efficiency.**
- 3. Evaluate the positive and negative aspects of price discrimination.**
- 4. Compare monopolistic competition with perfect competition.**
- 5. Compare monopolistic competition with monopoly.**