Course Title: Microeconomics-II

Course Code: ECON4006

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Topic: Oligopoly and Kinked Demand Curve

Characteristics of Oligopoly

The oligopoly market is a form of imperfect market with following features:

1. There are few firms in the market, but each firm has a large size and each firm has relatively large share in the total market supply.
2. The firms either sell identical products or sell differentiated product

Characteristics of Oligopoly

- There are significant barriers to entry imposed by the need of larger amount of fixed investment.
- There is huge interdependence among the firms. The decision of one firm affects all firms and so all firms follow the other firm. This is called the group behaviour.

- Also firms spend huge amount of money on advertising in order to attract the consumer and increase their share in the market.
- Often there exists price rigidity because of the group behaviour.

The Kinked Demand Curve Model

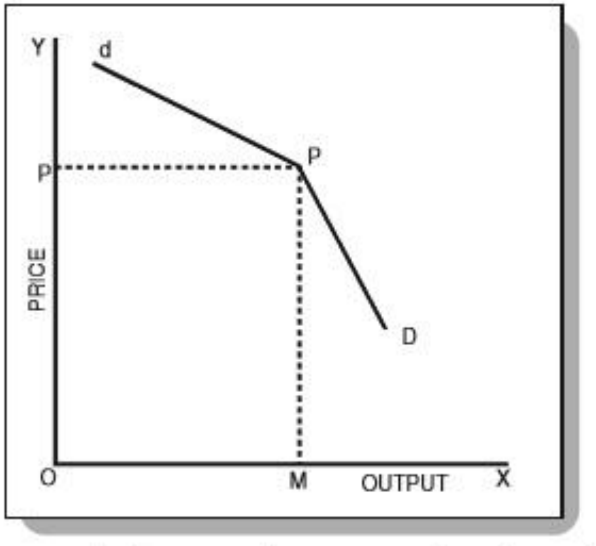
- This model was developed independently by Prof. Paul M. Sweezy on the one hand and Profs. R. C. Hall and C. J. Hitch on the other hand.
- Mostly the model developed by Prof. Paul M. Sweezy is mostly accepted.
- This model is more appropriate in case of differentiated oligopoly when the products are close substitutes.

Assumptions of the Model

- There are few firms in the market.
- They do not spend much on advertising.
- Firms have perfect information about the demand curve.
- They are producing close substitutes
- Firms are aware of their interdependence

The Demand Curve

- Here the demand curve is not smooth and it has a kink at the prevailing level of price. The shape of the demand curve is given in the figure.



Kinked Demand Curve under oligopoly

Kink in the Demand Curve

- Here the demand curve is dD and it has a kink at the prevailing price OP.
- The upper portion i.e. dP is elastic and the lower portion DP is inelastic.
- The elasticity difference between two portions emerges because of differential reaction of the firms following a price rise or fall.

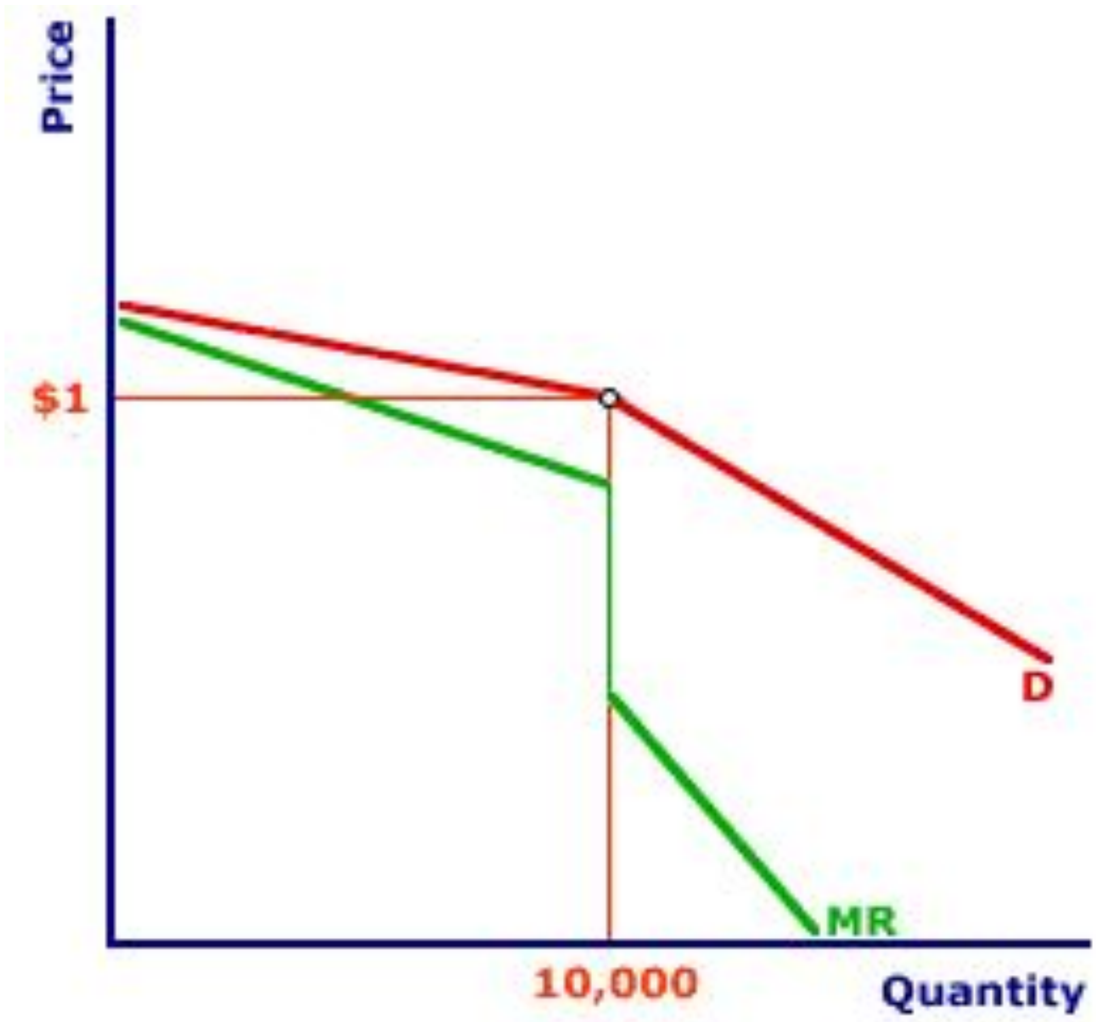
Difference in Elasticity

- The upper portion is elastic because if any one firm increases the price above the prevailing one, no other firm will follow him. So his product will become relatively dearer and he would lose a larger amount of his sale.
- The lower portion is inelastic because if any one firm reduces the price below the prevailing one, all other firm will follow him. So his product will not become relatively cheaper and his gain will be very less.

Price Rigidity

- Thus if a firm raises the price no other will follow him and he will hugely lose. So he would be reluctant to raise the price
- But if he lowers the price, the other firms will quickly follow the suite and his gain will be very less. So there is little incentive to reduce the price.
- Due to reluctance among firms either to reduce the price or raise the price, the price mostly remains sticky at the prevailing rate. This is called price rigidity.

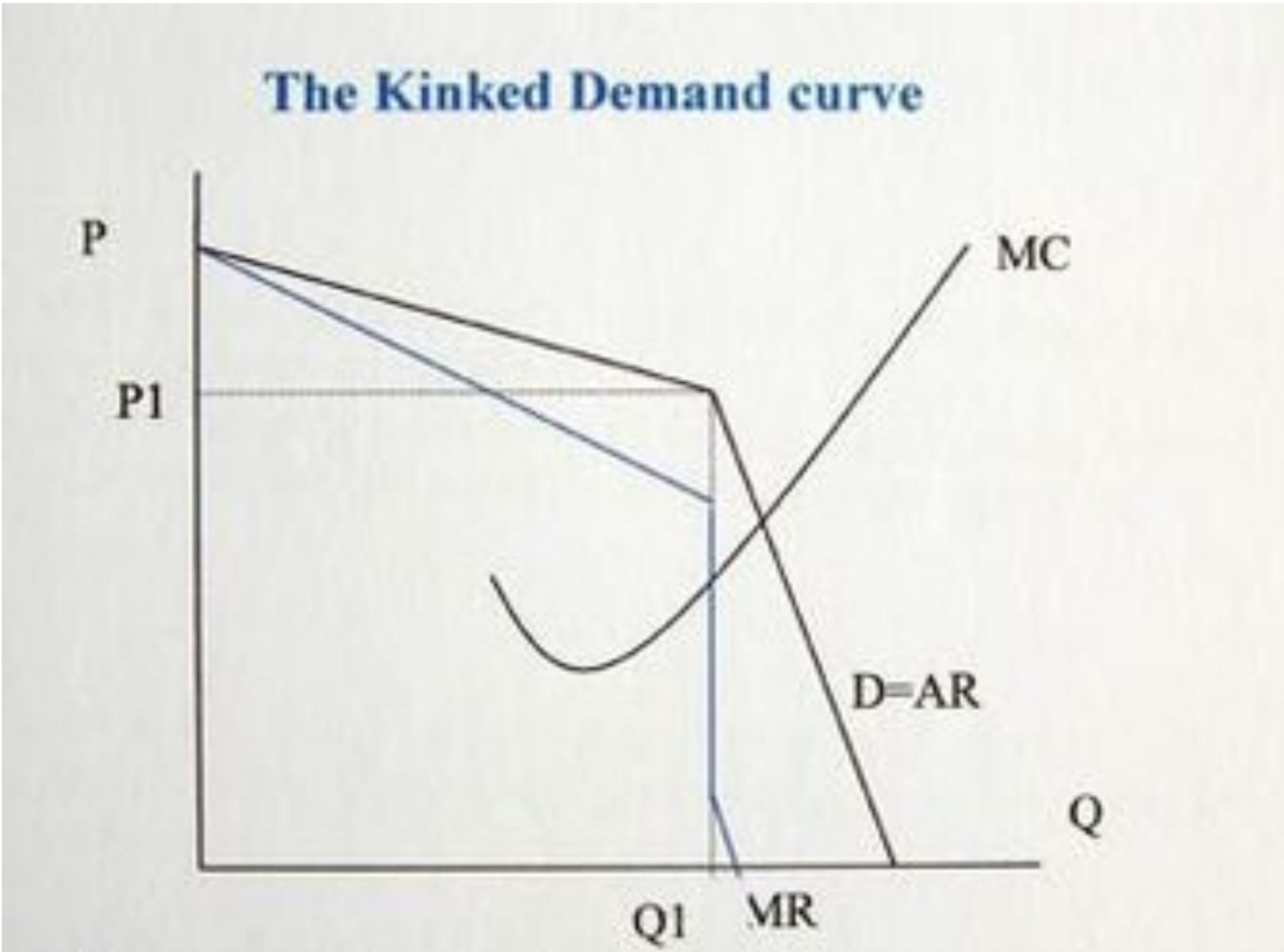
Marginal Revenue (MR) Curve



Marginal Revenue Curve

- The green line in the above figure represents the marginal revenue curve.
- The MR curve here has a discontinuous portion at the point of the kink in the AR or demand curve.
- The length of this discontinuous portion depends on the elasticity difference between the lower and upper portions of the demand curve.
- Higher the difference in elasticities, higher will be the length of the discontinous portion in the MR curve and vice versa.

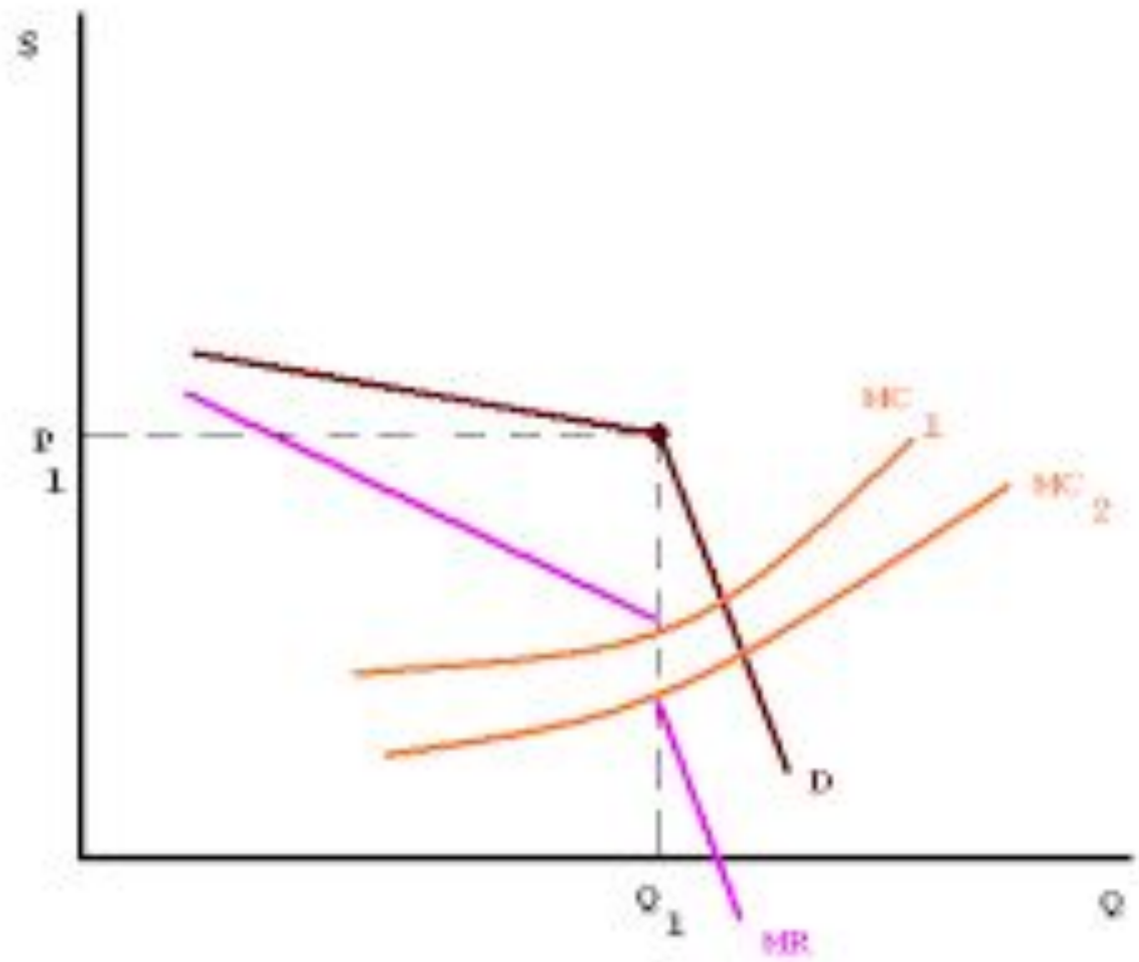
Equilibrium



Equilibrium

- The equilibrium is achieved when the marginal cost is equal to the marginal revenue.
- Here the equality of both determines P1 price and Q1 quantity.
- This price remains sticky given the explanation before.

Change in the Marginal Cost



Change in the Marginal Cost

- Even the price remains rigid at the prevailing level if there is change in the marginal cost
- So long as the changed marginal cost curve passes through the discontinuos portion of the MR curve, price does not change.
- However if the change in marginal cost is very sharp, there could be changes in the price.