BUSS1040: Economics for Decision Making (II)

Week 5: Price Discrimination & Monopolistic Competition (Cont)

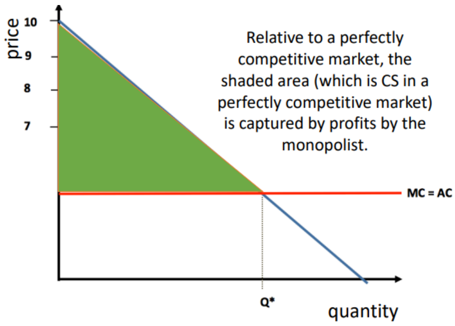
Monopoly: Key Ideas
- Monopolist might be able to increase profits further by tailoring prices to specific consumers based on their valuations for the product; this is price discrimination.

Price Discrimination
- Charging a different price for different units of output that are not related to COP.
- How It Occurs? Requires some market power.
- Intuition is straightforward, try and charge a higher price to those who have a higher WTP.

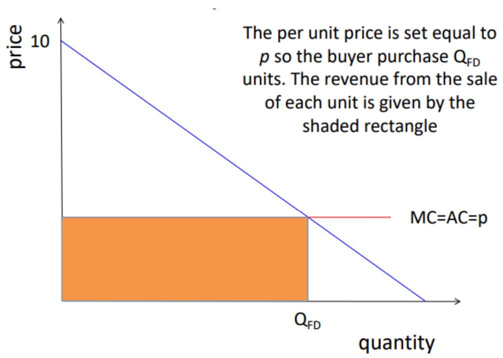
Types of Price Discrimination: First degree, second degree, third degree price discrimination.

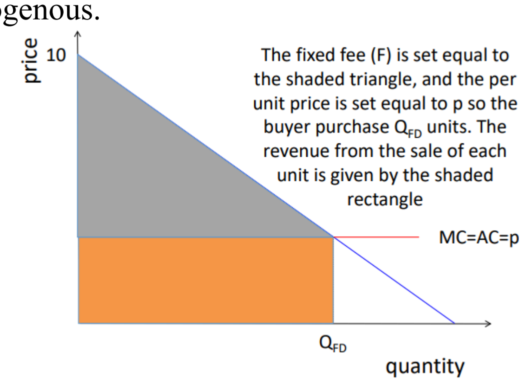
First Degree Price Discrimination
- Monopolist charges different price for each unit sold. Monopolist charges max WTP.
- Monopolist extracts all consumer surplus.
- Requires knowledge of WTP for every unit consumed by every consumer.
- Can use a two-part tariff.
- Monopolist continues to sell units as long as MR > MC.

First Degree Price Discrimination
- No DWL from a perfectly price discriminating monopolist. Its critical monopolist is able to prevent arbitrage.



Two Part Tariff
- First degree price discrimination can also be implemented using a two-part tariff consisting of: Fixed fee (F) and per unit fee (p). E.g. Inc electricity, gyms, razors, printers, etc.
- Consider following simple example
  - Demand curve is that for a single consumer and MC is (constant) marginal cost.
  - Monopolist sets p = MC and uses F to extract consumer surplus.
  - More difficult if consumers are heterogenous.





Second Degree Price Discrimination
- Monopolist offers a menu of pricing options to consumers and allows consumers to choose which one they want.
- Monopolist can't distinguish between groups.

- Monopolist knows demand curve or WTP of different groups.
- Need to design prices so as to induce more inelastic groups to pay higher prices.

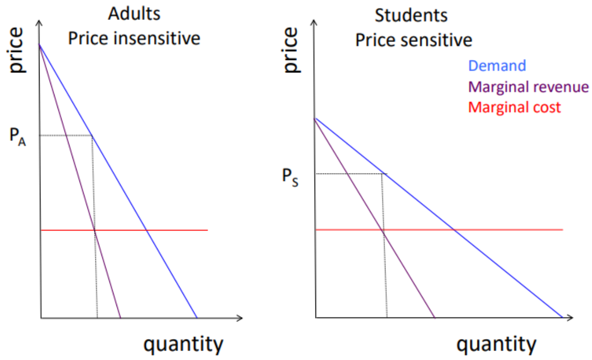
	Business	Personal
Standard	\$35	\$20
Deluxe	\$100	\$20

Second Degree Price Discrimination

- Other examples include airlines, offering bz class tickets and economy tickets.
  - Note each product is differentiated.
  - Buyers choose the type of seat that best suits them.
- Other examples include: Quantity discounts, hard cover and soft cover versions of books.
- No need to worry about arbitrage.

Third Degree Price Discrimination

- Monopolist charges diff prices to diff groups of consumers.
- Monopolist must be able to distinguish between groups.
- Monopolist knows demand curve of diff groups.
- Intuition is that you pay a charge a higher price to the more inelastic segment of the market.
- **EXAMPLES**: Student or pensioner discounts for movies, haircuts.



- Effectively what the monopolist wants to do is to maximise profits.
- This requires they 'act like a monopolist in each of the separate markets'.
- That is, the monopolist should equate MC and MR in each of the markets they operate.

EXAMPLE: Third Degree Price Discrimination

- **Consider student with demand given by: Ps = 8** - Qs → MRs = 8 - 2Qs
- Consider adult with demand given by: Pa = 10 - Qa → MRa = 10 - 2Qa
- Further, assume MC = 2 (constant and = AC).

Monopolist sets MR = MC for each consumer:
- MRa = 10 - 2Qa = 2 → Qa = 4 & Pa = 6
- MRs = 8 - 2Qs = 2 → Qs = 3 & Ps = 5

Total Profit = Qa x Pa + Qs x Ps - AC (Qa + Qs) = 24 + 15 - 14 = 25.

- Preventing arbitrage important, sometimes easy, sometimes difficult.

Monopolistic Competition

- Each faces downward sloping demand curve i.e. they sell differentiated product.
- Unlike monopoly, demand curve is not market demand curve.

Monopolistic Competition: Short Run

- Firms behave like monopolists. Produce where MR = MC.
- Firm can earn short run economic profit.
- Produces less than capacity, that is less than the level of output that minimises ATC.

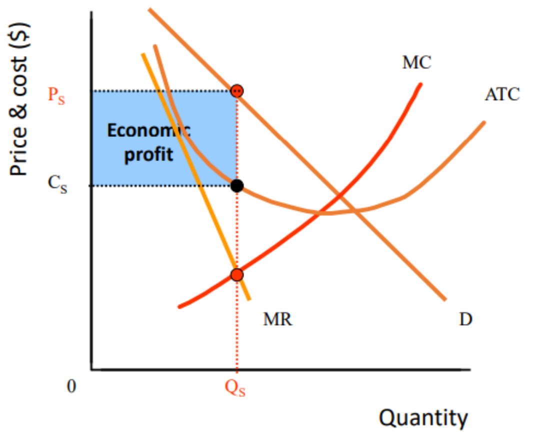
Monopolistic Competition: Long Run

- In LR, economic profit must equal zero.

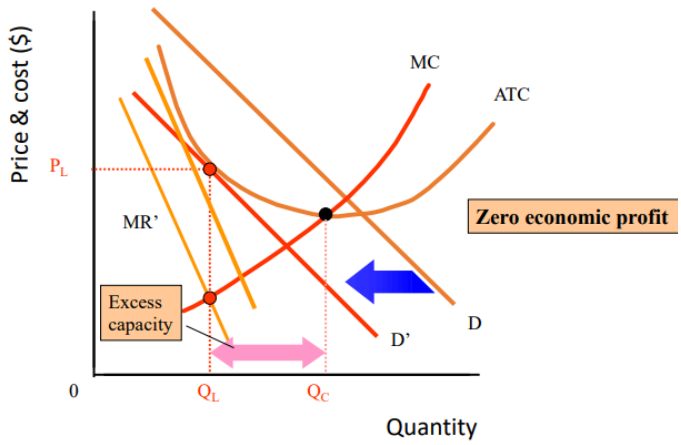
- Economic profit attracts new entrants.
- When firms enter industry, firms demand curve and marginal revenue curve start to shift leftward.
- That is, we expect a decrease in demand and for demand to become more elastic.
- Profit maximising quantity and price fall.

Monopolistic Competition Short Run & Long Run

Short Run

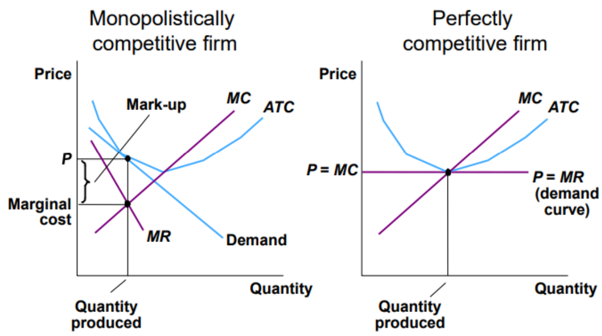


Long Run



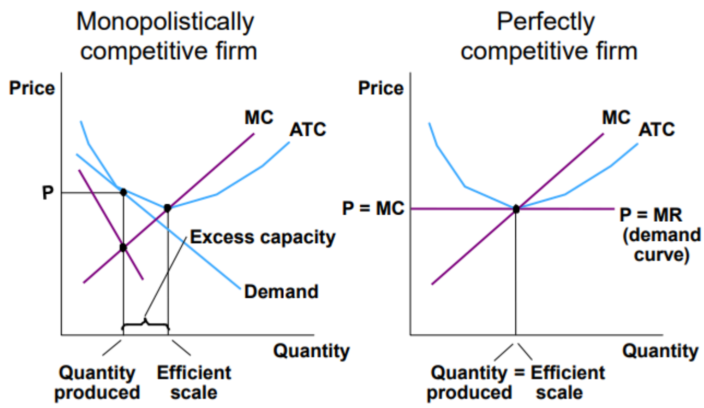
Monopolistic Competition: Mark Up

- In a competitive market, firms charge P = MC.
- In a monopolistically competitive market, firms charge a mark-up over marginal costs.



Excess Capacity

- In LR, in a perfectly competitive industry firms produce at the minimum of average cost.
  - Firms produce as the minimum efficient scale.
- In a monopolistic competitive industry, costs exceed minimum of average cost.
  - Firms produce less than the minimum efficient scale.



Monopolistic Competition: Efficiency

- Firms charge P > MC. This leads to DWL.
- But consumers do gain variety.