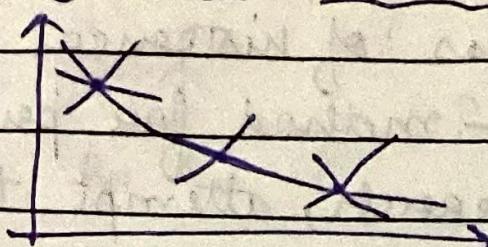


Week 74) Obtain the demand Funcⁿ

} practical problem
in estimating
demand funcⁿ.

- Managerial judgement \rightarrow use knowledges of managers, salespersons. Check expenses in terms $\uparrow \downarrow$ in prices. Source of volume model with justificaⁿ. Delphi technique.
- Analogous period \rightarrow For nth gen. product, works best for incremental innovaⁿ.
Perv. gen. model as a reference. Doesn't work well for new products.
- Benchmarking \rightarrow similar to analog period; compare with competitive products.
Doesn't work well for new products.
- Focus group \rightarrow used for qualitative market research to obtain exns from the target market. Skilled moderator needed.
Cons \rightarrow small sample, expensive, As the direcⁿ of discussion, focus on wrong features.
- Purchase intentⁿ survey \rightarrow Obtain the likelihood of purchase at specific prices. How to ask? Use a 5-pt. scale.
- Cons \rightarrow WTP?, might not share

- "experimental" - field experiment, simulation
- regression analysis of historical data
- Conjoint analysis - method for product & pricing research, attempt to uncover consumer's preference, helps to select diff. features, price sensitivity, forecasts volume & market share. The technique is to unbundle the product in attributes.
- Economic value to customers

$$\text{Utility}_A \geq \text{Utility}_B$$

L2 Monopoly

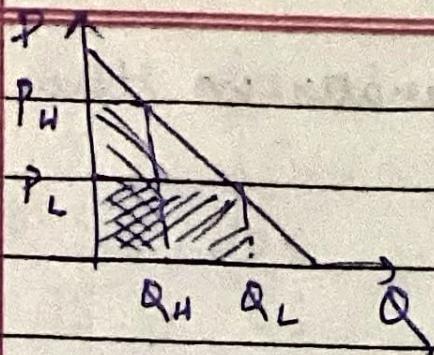
In perfectly comp. market -

→ profit max. $MR = MC > 0$, $Q \uparrow$

→ market demand & demand facing a firm operating in perfect comp. market

→ economic profit & supply in short run long run

- Monopoly → 1 seller, many buyers
(buyers are price taker, seller is the price maker)



Q high \rightarrow margin high,
volume low.

P low \rightarrow margin low,
volume high.

$$\begin{aligned} \text{Margin} \times \text{Volume} &= (P - Ac) \times Q \\ (P - Ac) &\downarrow \\ Q &= PQ - (Ac \times Q) \\ &\boxed{= TR - TC} \end{aligned}$$

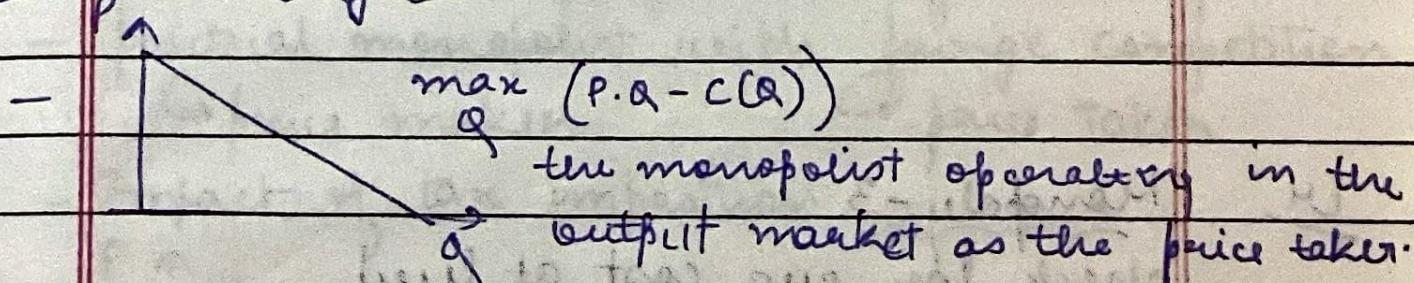
- The good shouldn't have a close substitute.

Eq.: $P = 10 - Q$, $C(Q) = 2Q$

$$10 - Q = 2Q$$

$$3Q = 10 \Rightarrow Q = 3.33 \rightarrow (\overset{*}{Q}, \overset{*}{P}) = (4, 6)$$

L3 Monopoly 2



- perfectly comp. market $\rightarrow P = MR = MC$

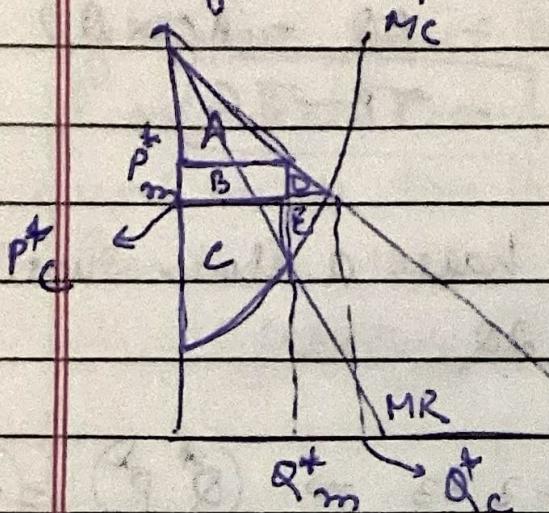
- monopoly,
on the
demand
side

$$\frac{1}{\epsilon} = \frac{P - MC}{P}$$

$$MC = P \left(1 - \frac{1}{\epsilon}\right)$$

Lerner's index \rightarrow
markup on marginal cost

- monopolist never operates in the inelastic zone
- $MR = P + \frac{dP}{dQ} \cdot Q$
- welfare implications



$$MR = MC \Rightarrow Q^*$$

↳ but $MR = P$
 $P > MC$

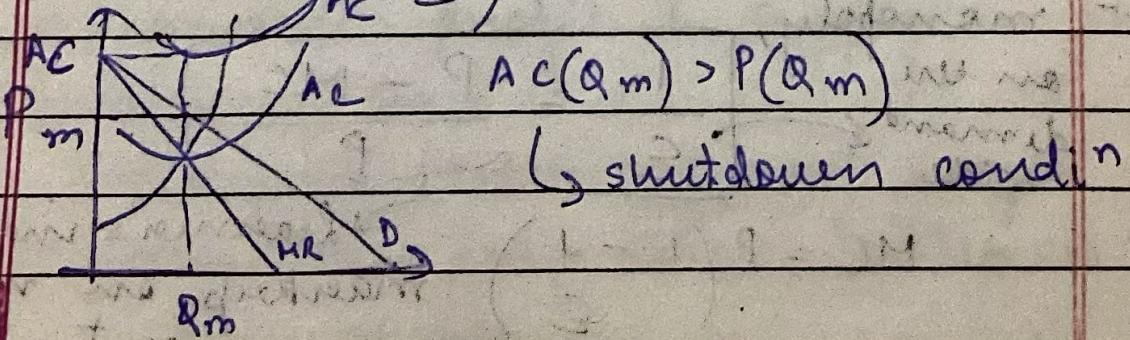
$$PCM \rightarrow CS = A + B + D, PS = C + E$$

$$\text{Monopoly} \rightarrow CS = A, PS = B + C, DWL = D + E$$

L4Monopoly - 3

- check for avg. cost at level

$$AC = P \left(1 - \frac{1}{1 - \varepsilon}\right) \Rightarrow P + MR$$

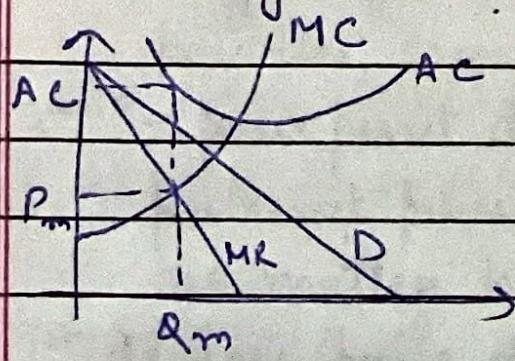


Q. Find optimal price & quantity for monopolist

Q	P	MR	MC	AC
0	100	100	150	150
15	86	71	71	107
25	75	50	41	84
34	66	33	33	72
50	50	0	63	63

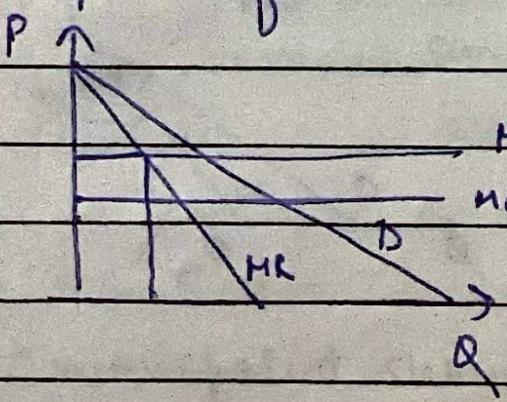
$P \downarrow, Q \uparrow$ $MR = MC$, but $AC > MC$

- how to get out? \rightarrow Two-part pricing



\rightarrow give some fixed price to participate in market, then get everything at marginal cost.

- there is no supply curve for monopolist.
- practical monopolist with fringe competition
 - ↳ price maker
 - ↳ price taker
- Impact of tax impositions



better buyer &
seller pay half of
tax.

- Sources of monopoly

1. Economic barriers → exclusive control over essential factors of producⁿ, tech. supremacy, economy of scale (natural monopoly), capital need, cost lead, market manipulⁿ.
2. Legal barriers → patent, govt. licenses.