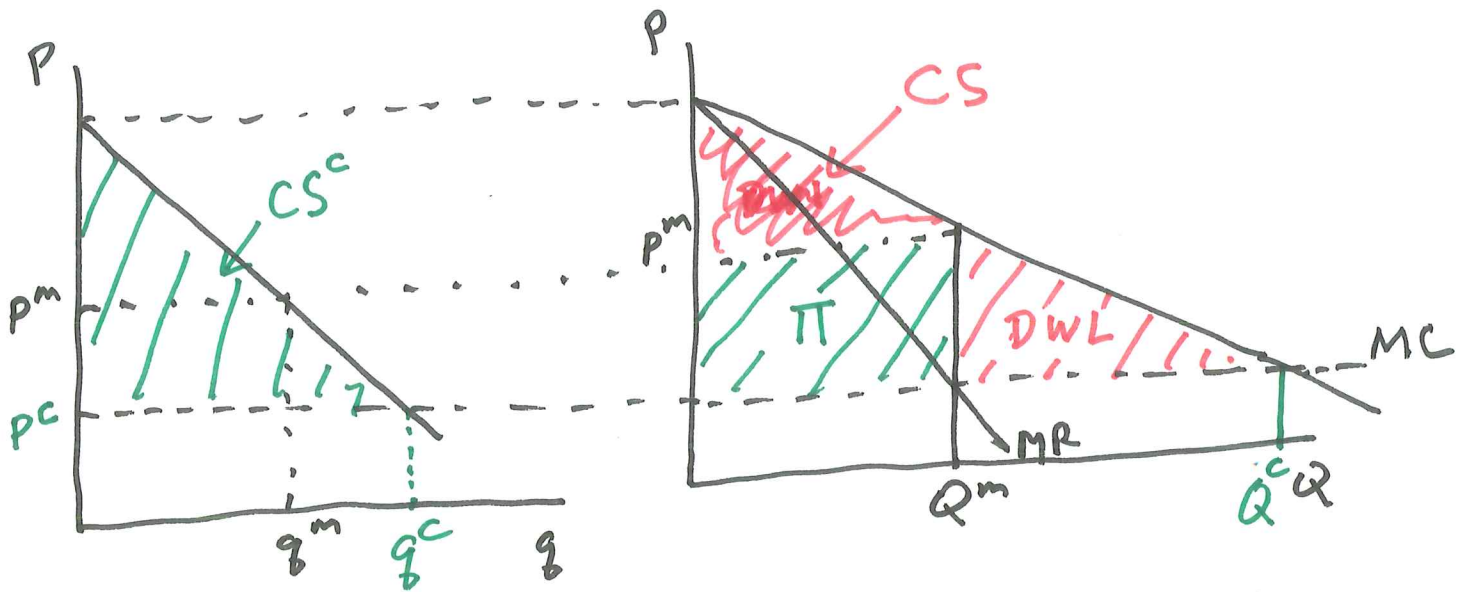
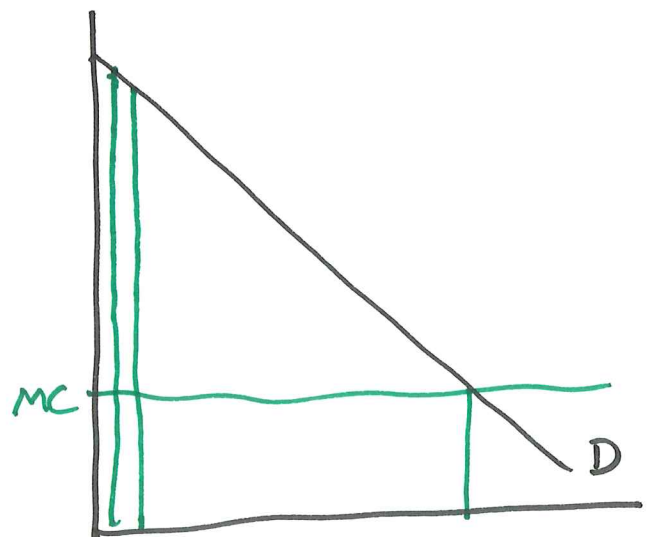


Alternative Pricing Strategies

Two-Part Price or Tariff



First-degree or Perfect Price Discrimination.



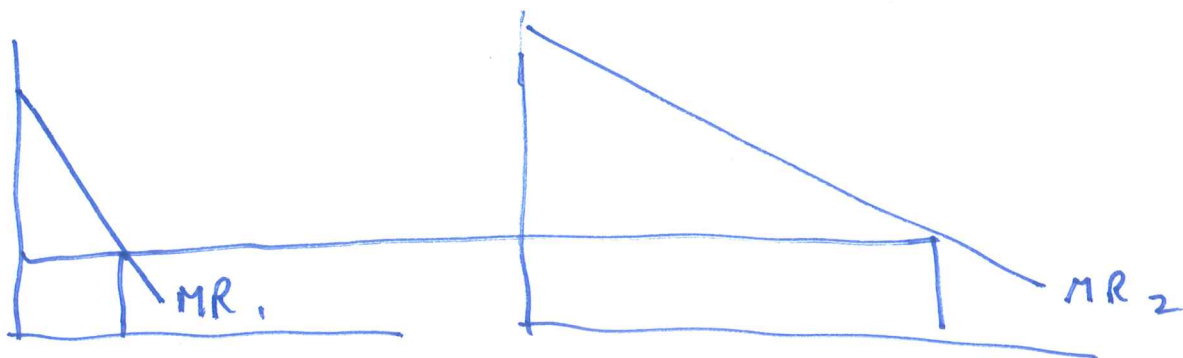
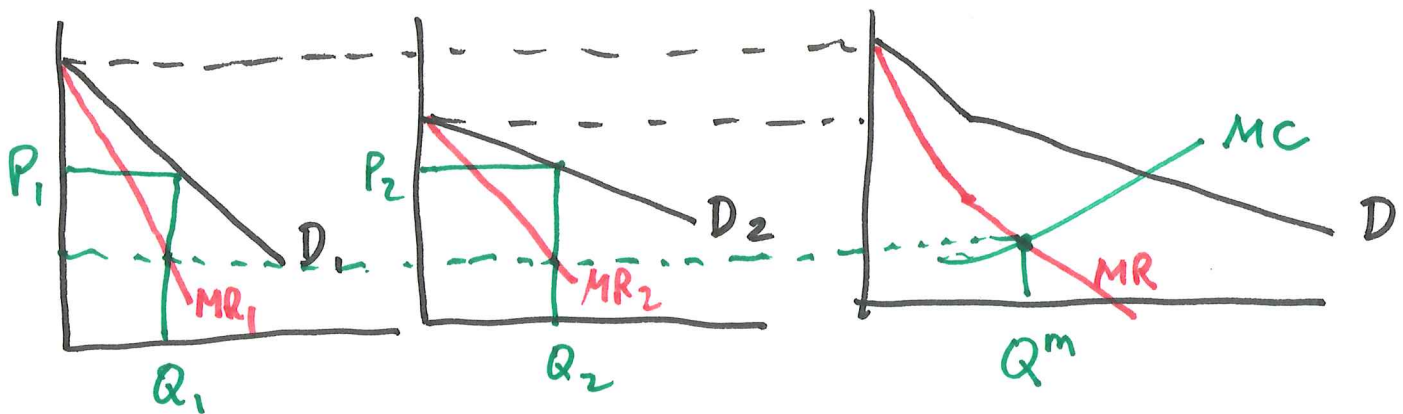
Third-degree Price Discrimination

$$\pi = R_1(Q_1) + R_2(Q_2) - C(Q_1 + Q_2)$$

$$\left. \begin{aligned} \frac{\partial \pi}{\partial Q_1} &= MR_1 - MC = 0 \\ \frac{\partial \pi}{\partial Q_2} &= MR_2 - MC = 0 \end{aligned} \right\} MR_1 = MR_2 = MC$$

$$P_1 \left(1 + \frac{1}{\epsilon_1}\right) = P_2 \left(1 + \frac{1}{\epsilon_2}\right)$$

$$|\epsilon_1| > |\epsilon_2| \rightarrow P_1 < P_2$$



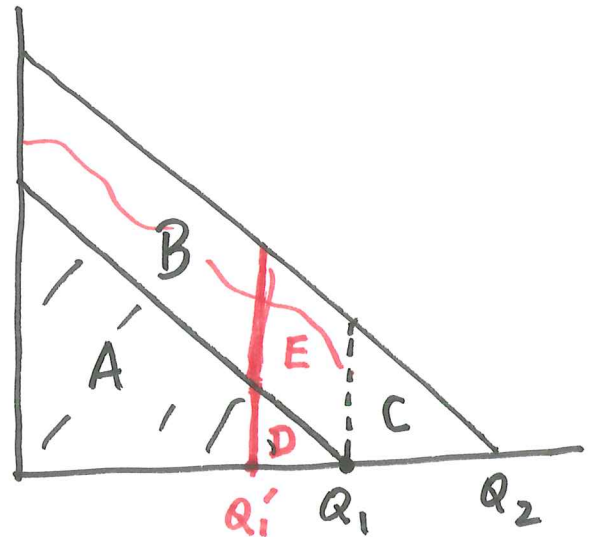
Second-degree Price Discrimination

$$P(Q_1) = A$$

$$P(Q_2) = A + C$$

$$P(Q'_1) = A - D$$

surplus for high demanders:
= $B - E$



$$P(Q_2) = A + C + \underline{\underline{E}}$$

Quality choice problem.

	a'	a	b
low :	9	10	2
high :	11	15	5

$$a : P_a = 10$$

$$(a+b) : P_{a+b} = \frac{15}{25}$$

$$a' : P_{a'} = 9$$

$$(a+b) : P_{a+b} = \frac{18}{27}$$

Limit Pricing.

Price to pre-empt (or limit) entry.

Contestable Markets

Perfect: Entry is free and instantaneous.

"hit and run" entry.

Price-Leadership Model.

Dominant firm

Competitive fringe

Residual demand:

$$Q(P) = \underset{\substack{\text{Market} \\ \text{demand}}}{D(P)} - \underset{\substack{\text{Supply} \\ \text{from Fringe}}}{S(P)}$$

$$\frac{dQ}{dP} = \frac{dD}{dP} \cdot \frac{P}{D} \cdot \frac{D}{P} - \frac{dS}{dP} \cdot \frac{P}{S} \cdot \frac{S}{P}$$

$$= \epsilon_D \cdot \frac{D}{P} - \epsilon_S \cdot \frac{S}{P}$$

$$= \frac{1}{P} [\epsilon_D \cdot D - \epsilon_S \cdot S]$$

$$\frac{dP}{dQ} = \frac{P}{\epsilon_D \cdot D - \epsilon_S \cdot S}$$

$$\pi_d = p \cdot Q - C(Q)$$

$$\frac{d\pi_d}{dQ} = p + Q \cdot \frac{dp}{dQ} - C' = 0$$

$$p + Q \cdot \frac{p}{\varepsilon_d \cdot D - \varepsilon_s \cdot S} = C'$$

$$p \left\{ 1 + \frac{Q}{\varepsilon_d \cdot D - \varepsilon_s \cdot S} \right\} = C'$$