Discriminating Monopolist:

When monopolist charges different price to different buyer s for same quantity is known as Discriminating monopolist.

Price Discriminating Condition:

1. There should be two different markets & monopolist charges different price for identical product.
2. Elasticity of demand should be different in two markets.
3. Communication among buyers in two different markets is impossible.
4. Full control over supply.
5. It is possible to segregate in the market
6. It is not possible to purchase a product from cheaper market & sell them in costlier market.

Explanation of the model:

Q_1=amount of output sold in market 1

Q_2=amount of output sold in market 2

$Q=Q_1+Q_2$=total amount sold in two markets

R_1=revenue obtained from market 1

R_2=revenue obtained from market 2

$R=R_1+R_2$= total revenue obtained from two markets

Where, $R_1=R_1(Q_1)$ & $R_2=R_2(Q_2)$

Cost function can be defined as, $C=C(Q)= C(Q_1+Q_2)$

Equilibrium condition:

1. $MR_1=MC$
2. $MR_2=MC$

a) If $MR_1>MR_2$ it will be profitable for producer to shift goods from 2^{nd} market to 1^{st} market

b) If $MR_1<MR_2$ it will be profitable for producer to shift goods from 1st market to 2nd market

$MR_1=P_1*(1-1/e_1)$

$MR_2=P_2*(1-1/e_2)$

P_1= price in 1^{st} market

P_2= price in 2^{nd} market

e_1= elasticity in 1^{st} market

e_2=elasticity in 2^{nd} market

If MR1=MR2

$P_1*(1-1/e_1) = P_2*(1-1/e_2)$

$P_1/P_2= (1-1/e_1)/ (1-1/e_2)$

CASE 1

If elasticity in both markets are equal ($e_1=e_2$) then $P_1/P_2= (1-1/e_1)/ (1-1/e_2) =1$

So $P_1=P_2$

Price in both markets is equal so price discrimination is not profitable as both markets earns same profit

CASE 2

If elasticity in market 1 is less than elasticity in market 2 ($e_1<e_2$) then-

$e_1< e_2$

$=1/e_1>1/e_2$

$=(1-1/e_1)<(1-1/e_2)$

$=(1-1/e_2)/(1-1/e_1)>1$

$=P_1/P_2>1$

$=P_1>P_2$

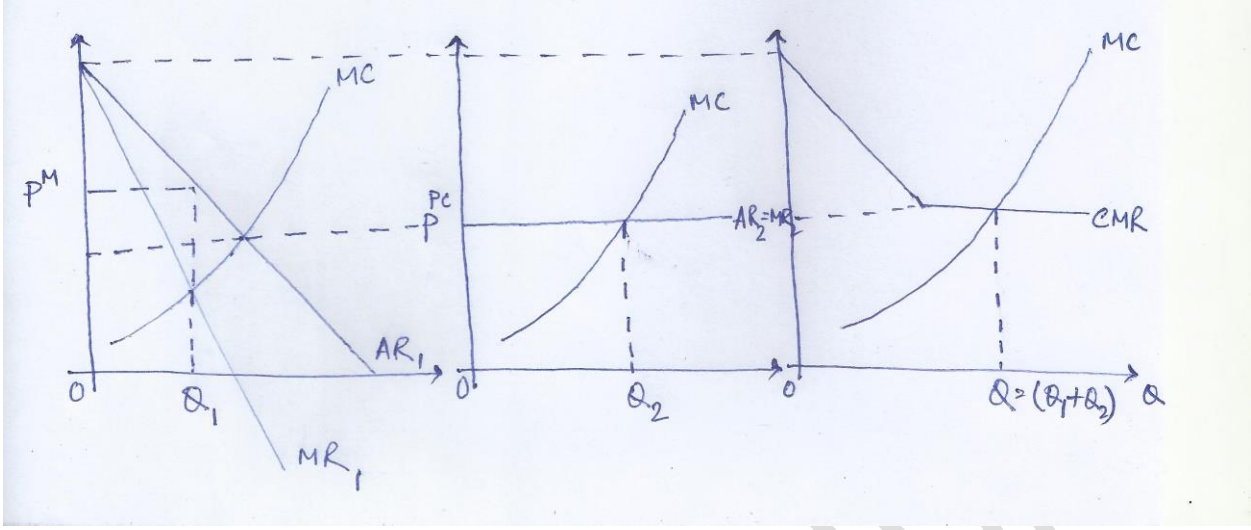
So, market at which elasticity is lower price is higher & vice versa.

CASE 3

If $e_1>e_2$ then $P_1<P_2$ holds

Dumping:

It may be happen that monopolists is selling products in two markets where one market is perfectly competitive market(international market) & another one is monopoly market(domestic market). In such case price discrimination is possible which is known as local discrimination or dumping.



Here, Q_1 & MR_1 are quantity sold & MR in domestic market & Q_2 & MR_2 are quantity sold & MR in world market & CMR is combined kink shaped MR in two markets & $Q(=Q_1+Q_2)$ is total quantity sold in two markets all together.