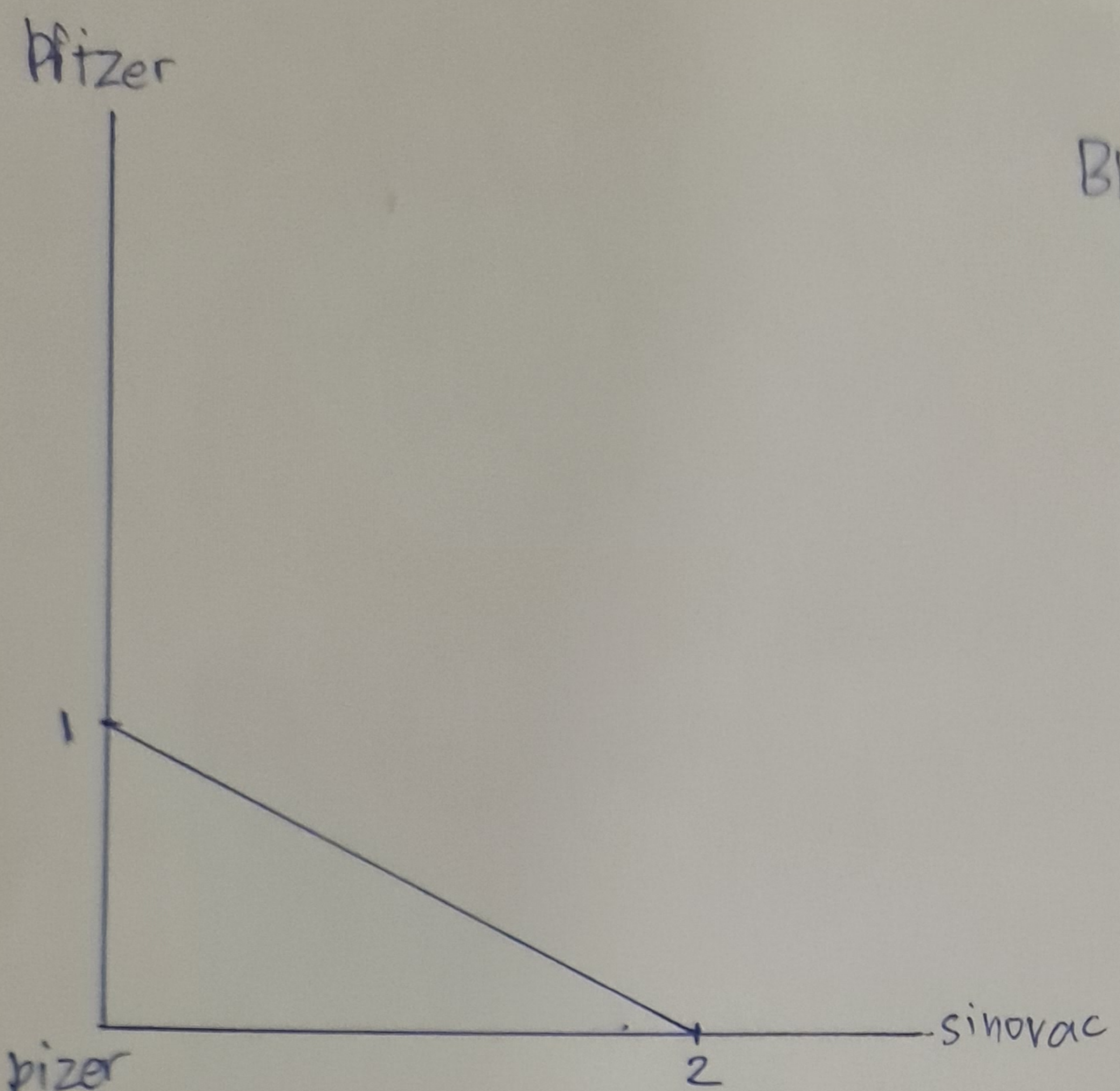


1) Thailand, sinovac \$20  
pizer \$40



1) a) If  $y=0 \Rightarrow x=2 = 40/(20) = (2,0)$

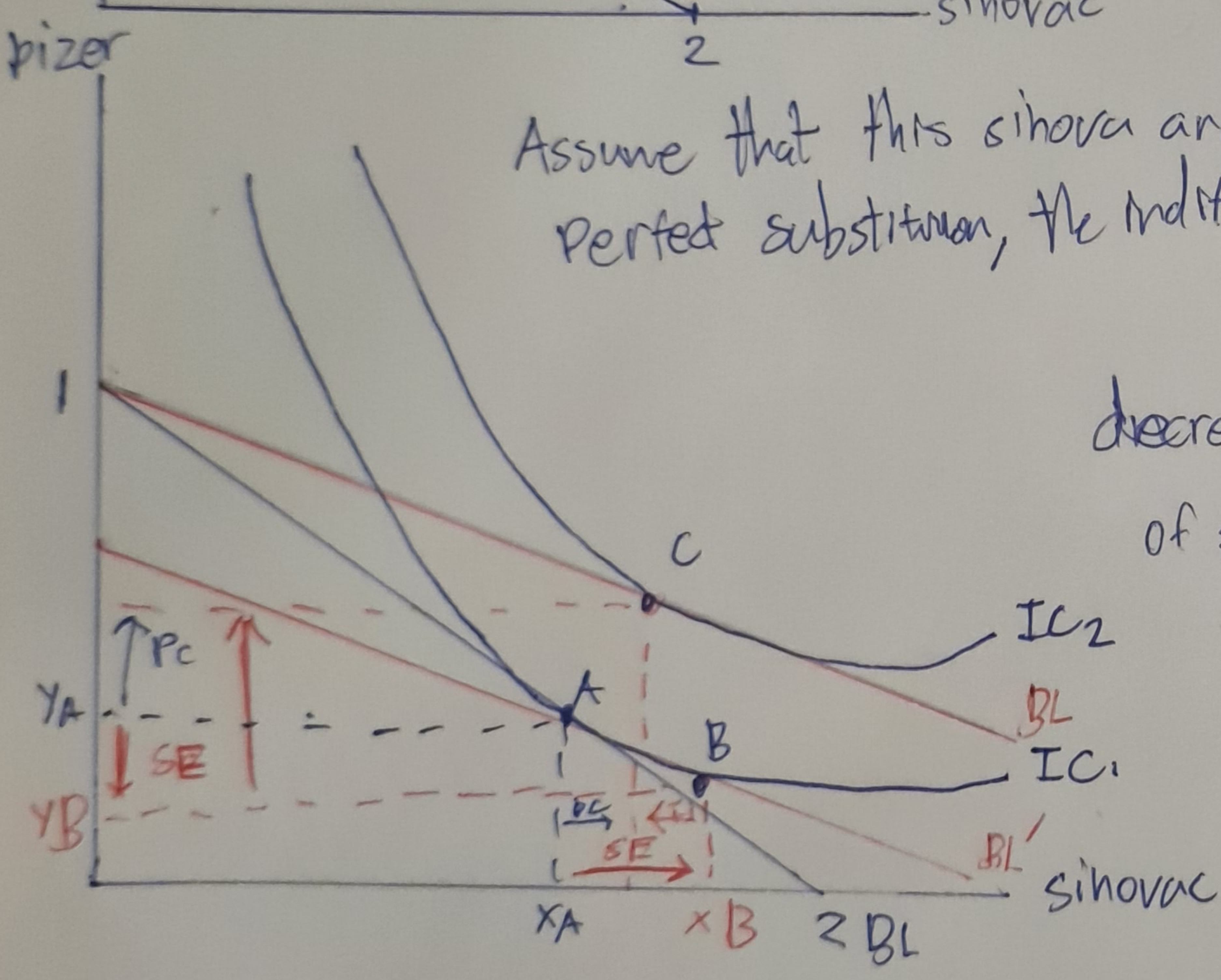
BL:  $I = P_x X + P_y Y$   
 $40 = 20X + 40Y$

If  $X=0 \Rightarrow Y = 40/(40) = (0,1)$

1) b) sinovac = interior good  
Pizer = normal good

Price of  $x \downarrow$  half from \$20 to \$10

$40 = 10X + 40Y$



Assume that this sinovac and pizer are not perfect substitutes, the indifference curve will be a convex shape

In substitution effect, when  $P_{sinovac}$  decrease, consumer will increase amount of number of  $sinovac$  and buy less pizer in order to substitute to maintain utility (A to B)

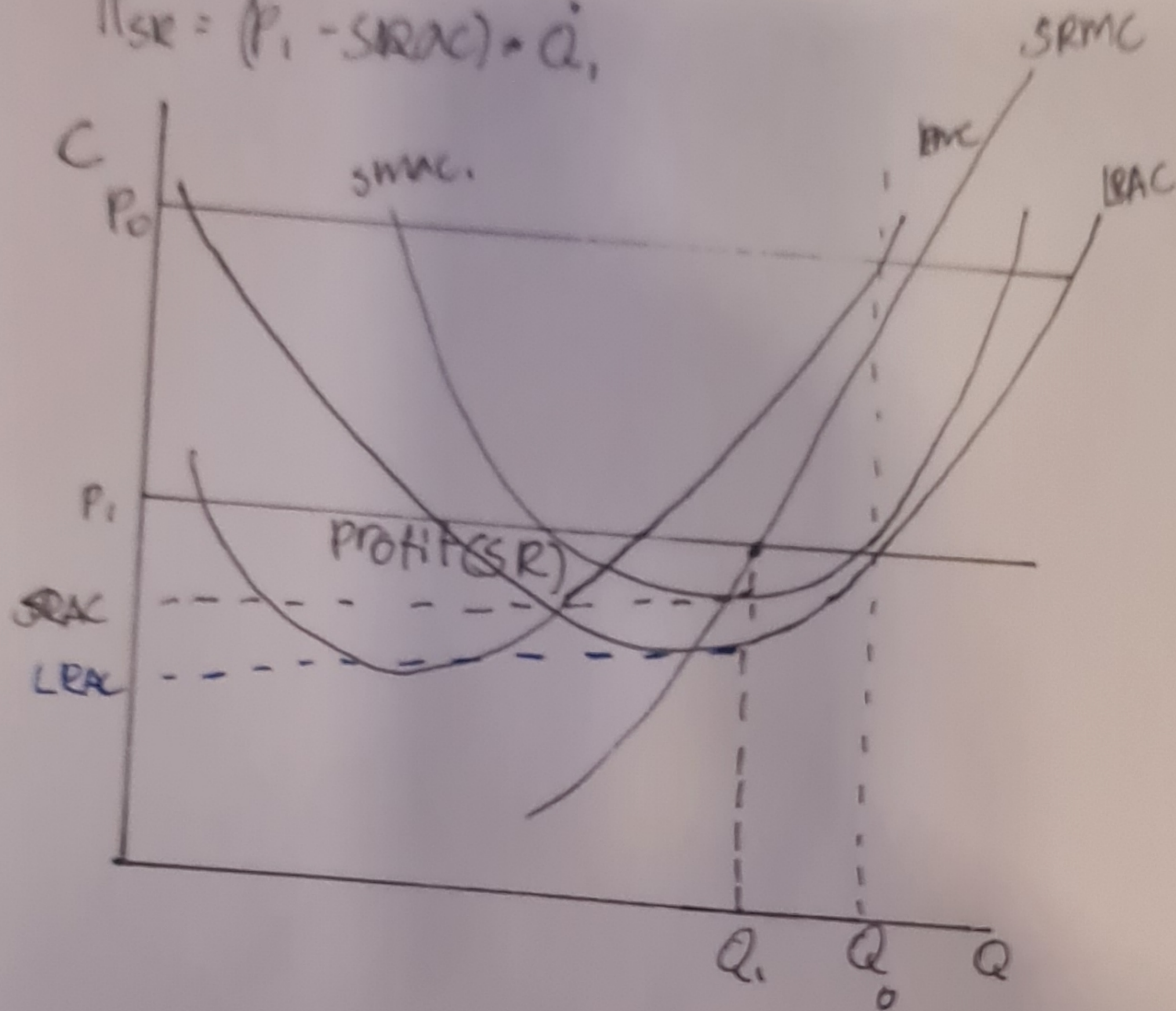
In income effect, when sinovac price decrease but to purchase power increase make  $BL'$  to  $BL_2$ . However consumer will buy less sinovac because it is inferior good but buy pizer more because normal good

In price effect, when price sinovac decrease, consumer will increase sinovac as an ordinary good (A to C)

2) a)  $\text{Max } \pi : \text{MR} = \text{MC}$

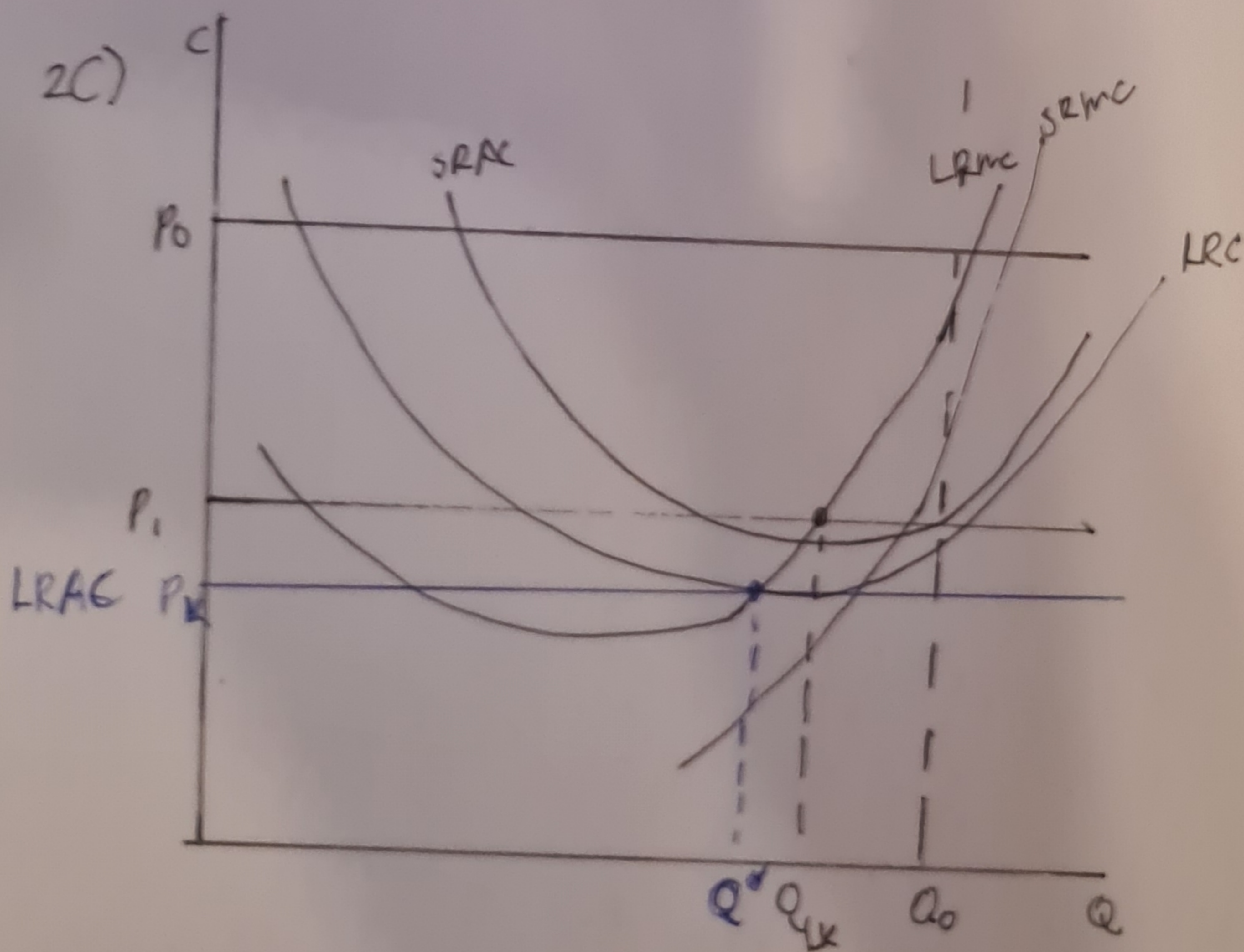
$P = \text{SRMC}$

$\pi_{\text{SR}} = (P_1 - \text{SRAC}) \times Q_1$



a) to find the equlbr  $Q$  is when  $\text{MR} = \text{MC}$ , and the equlbr that time to short run profit by  $(P_1 - \text{SRAC}) \times Q_1$ .

b) to find the differet between long run profit and short run profit is by find  $\pi_{\text{LR}} = (P_1 - \text{LRAC}) \times Q$ . so in the show the graph the  $\text{LRAC} < \text{SRAC}$ , so profit of  $\pi_{\text{LR}}$  higher than  $\pi_{\text{SR}}$

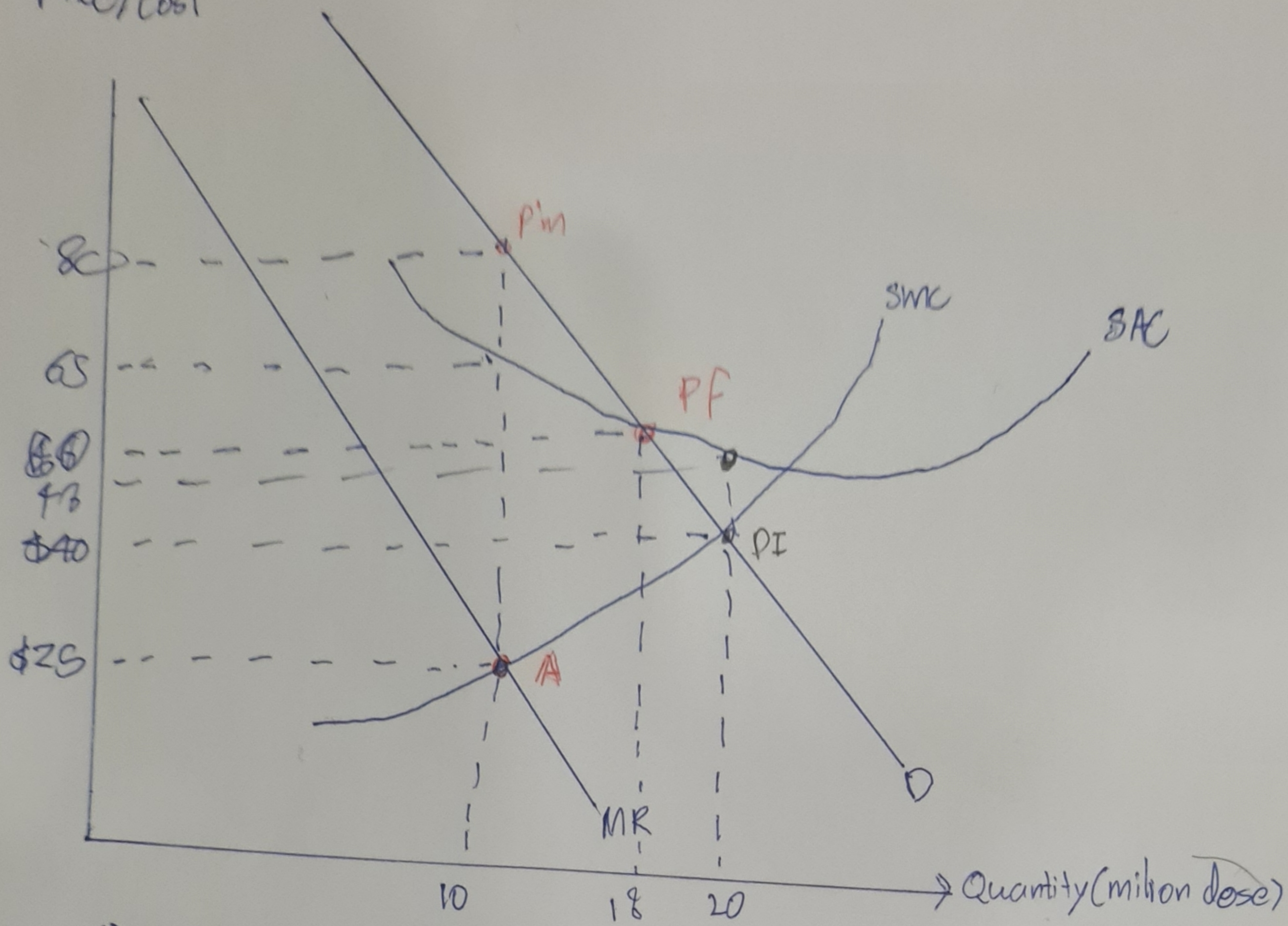


c) to find the long run equilibrium  $Q$  at price  $P_1$ , long run equilibrium at  $P_1 : P_1 = \text{LRMC}$

to find  $Q^*$  when no new seller enter, to LR-equilibrium:

$P_{\text{LR}} = \text{LRMC} = \text{min LRAC}$

3) Price/cost



1a) FPO want to maximize profit = MR = MC

so 10 million doses should they import, equilibrium quantity of monopoly  $Q_m^* = 10$  million doses  
equilibrium price of monopoly  $P_m^* = \$80$

3.b) To find profit =  $(P - AC) Q = (80 - 65) 10$  million doses = \$150 million

3.c) To set at fair price =  $P = ATC$

$Q_m^* = 18$  million doses

$P_m^* = \$50$  per dose

to set monopoly at fair price

4) To find the ideal price of monopoly

is  $Q_m^* = 20$  million doses

price \$40 per dose but monopoly for loss  $ATC > P_m^*$

• government need to subsidize to create incentive for a monopoly to produce

• subsidize =  $(ATC - p) \times Q$

$(46 - 40) \times 20$

= \$120 million

and each person will pay of

\$40