

$$\text{Max } \Pi = \frac{(3000 - P_A) Q_A}{P_A} + \frac{(2000 - P_B) Q_B}{P_B} - \frac{(Q_A + Q_B)^2}{2}$$

$$\text{Max } \Pi = P_A \frac{(3000 - P_A)}{P_A} + P_B \frac{(2000 - P_B)}{P_B} - \frac{(3000 - P_A + 2000 - P_B)^2}{2}$$

$$\text{CPO } P_A: 3000 - 2P_A - \frac{2}{2}(3000 - P_A - P_B)(-1) = 0$$

$$P_B: 2000 - 2P_B - \frac{2}{2}(3000 - P_A - P_B)(-1) = 0$$

$$3000 - 2P_A + 10,000 - 2P_A - 2P_B = 0$$

$$2000 - 2P_B + 10,000 - 2P_A - 2P_B = 0$$

$$\begin{cases} 13,000 - 4P_A - 2P_B = 0 \\ 12,000 - 4P_B - 2P_A = 0 \\ 2 \cdot 26,000 + 8P_A + 4P_B = 0 \end{cases}$$

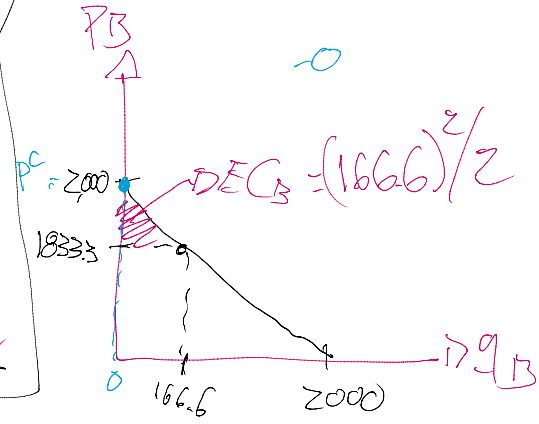
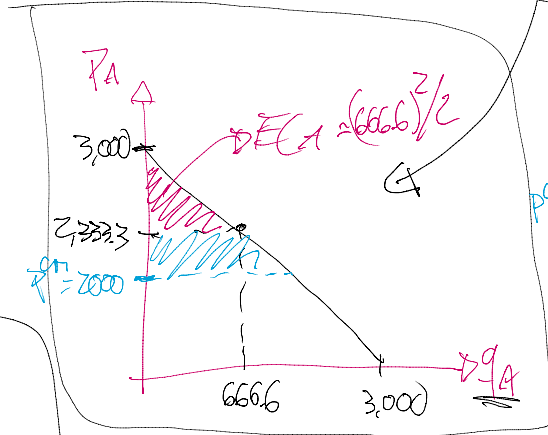
$$-14,000 + 6P_A = 0$$

$$P_A = \frac{14,000}{6} = 2,333.33 \quad P_B = 1,833.33$$

$$Q_A = 3000 - 2,333.3 = 666.6$$

$$Q_B = 2000 - 1,833.3 = 166.6$$

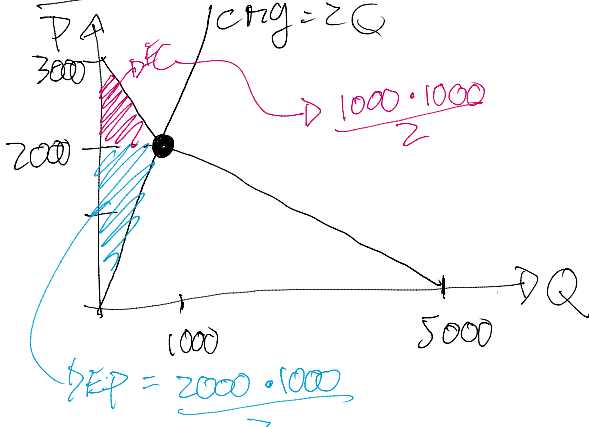
Curva oferta =  $2Q = 2(Q_A + Q_B)$



$$\Pi = EP = (3000 - P_A)P_A + (2000 - P_B)P_B - (5000 - P_A - P_B) = 1,166,666.6$$

Reemplazamos con  $P_A^*$ ,  $P_B^*$

Costo Bienestar Social



$$Q_A = \begin{cases} 3000 - P & \text{si } P < 3000 \\ 0 & \text{si } P \geq 3000 \end{cases}$$

$$Q_B = \begin{cases} 2000 - P & \text{si } P < 2000 \\ 0 & \text{si } P \geq 2000 \end{cases}$$

$$ET^C = \frac{1000^2 + 2000 \cdot 1000}{2}$$

$$ET^{P_B} = \frac{(666.6)^2}{2} + \frac{(166.6)^2}{2} + 1,166,666.6$$

$$Q_T = \begin{cases} 5000 - 2P & \text{si } P \leq 2000 \\ 3000 - P & \text{si } 2000 \leq P < 3000 \\ 0 & \text{si } P \geq 3000 \end{cases}$$

$$CBS = ET^C - ET^{P_B} = 1,500,000 - 1,402,722 = 97,278$$

$$Q_T = 3000 - P \quad \text{si } 2000 \leq P < 3000$$

$$Q = 3000 - 2Q$$

$$= 1,500,000 - 1,400,000 + 11$$

$$= 97,277.84$$

$$WT = 5000 - 1 \quad \rightarrow \quad \dots = 5000$$

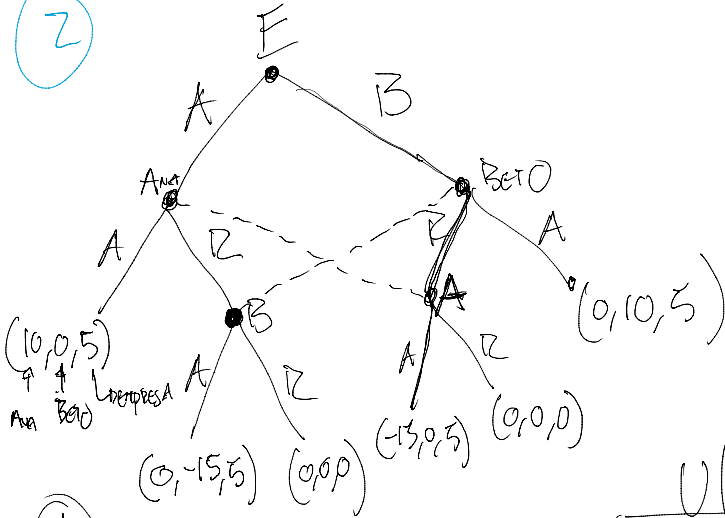
$$Q = 3000 - 2Q$$

$$3Q = 3000$$

$$Q^{CP} = 1000$$

$$P^{CP} = 2000$$

(2)



$$U(S_A, S_B, S_E) = (U_A, U_B, U_E)$$

$$U(\underline{A} \underline{A} \underline{A}) = (10, 0, 5)$$

$$U(\underline{A} \underline{B} \underline{A}) = (10, 0, 5)$$

$$U(\underline{B} \underline{A} \underline{A}) = (0, -15, 5)$$

$$U(\underline{B} \underline{B} \underline{A}) = (0, 0, 0)$$

$$U(\underline{A} \underline{A} \underline{B}) = (0, 10, 5)$$

$$U(\underline{A} \underline{B} \underline{B}) = (-15, 0, 5)$$

$$U(\underline{B} \underline{A} \underline{B}) = (0, 10, 5)$$

$$U(\underline{B} \underline{B} \underline{B}) = (0, 0, 0)$$

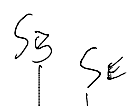
(b)

$$S = \{A, B, E\}$$

$$S_A = \{A, B\}$$

$$S_B = \{A, B\}$$

$$E = \{A^{An}, B^{Beq}\}$$



d)  $MRA \begin{pmatrix} ? \\ ? \\ 0 \end{pmatrix} A = A \checkmark \rightarrow$  Por lo  $U_A(A, ? A) > U_A(B, ? A)$

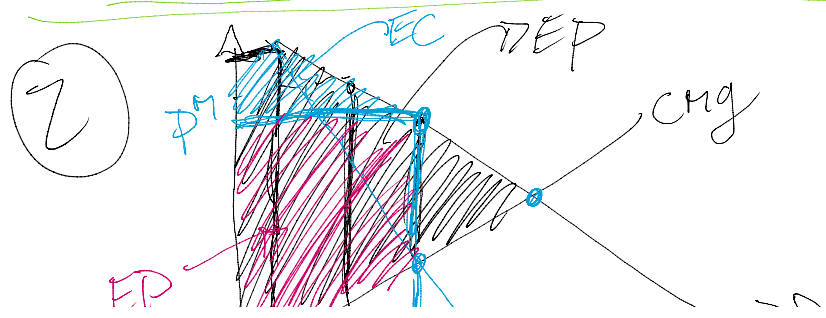
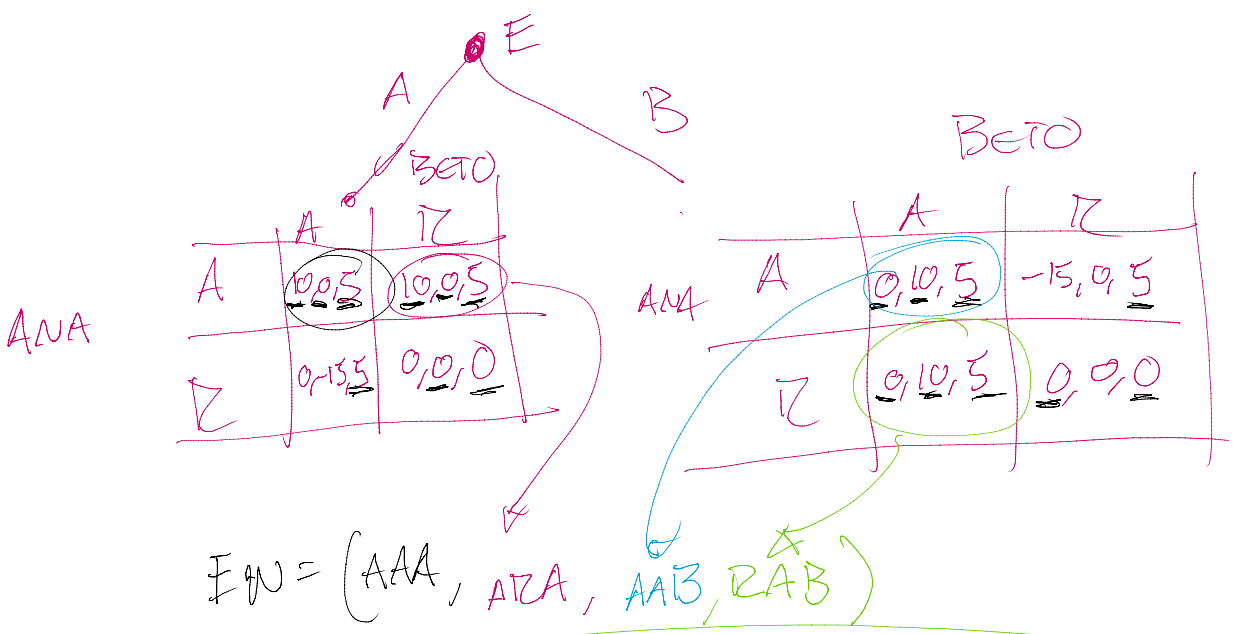
d)  $MZ_A \begin{pmatrix} 2 \\ 0 \\ A \end{pmatrix} = A \checkmark \rightarrow$  Pero  $V_A(A, \underbrace{0}_{10}, \underbrace{A}_0)$

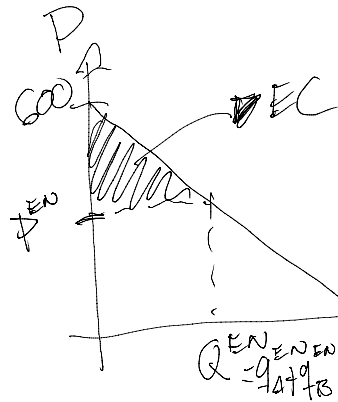
①  $EN = (A, A, A)$   
SA SB SE  
ANA

$MZ_A \begin{pmatrix} A \\ A \end{pmatrix} = A$  (Ver PARTE d)  
SB SE

$MZ_B \begin{pmatrix} A \\ A \end{pmatrix} = \{A, B\}$  (Pues  $V_B(A, A, A) = V_B(A, B, A) = 0$ )  
SA SE

$MZ_E \begin{pmatrix} A \\ A \end{pmatrix} = \{A, B\}$  (Pues  $V_E(A, A) = V_E(A, B) = 5$ )  
SA SB





$$\pi_A = P_A^{EN} q_A^{EN} - 600 q_A^{EN}$$

$$\pi_B = P_B^{EN} q_B^{EN} - 150 q_B^{EN}$$

①  $300 \quad 600 > 0 \rightarrow \pi = C \cdot Q$

$$\text{Imy}_A = C \text{Imy}_A = C \quad \text{Imy}_B = C \text{Imy}_B = C$$

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

$$\frac{P^A - C}{P^A} = \frac{1}{\epsilon^A}$$

$$\frac{P^B - C}{P^B} = \frac{1}{\epsilon^B}$$

$$P^A > P^B \Rightarrow \epsilon^A > \epsilon^B$$

$$\text{MAX } \pi \quad \text{MAX}_{P < P_1} Q'(P), \quad \text{MAX}_{P_1 < P < P_2} Q^2(P)$$