

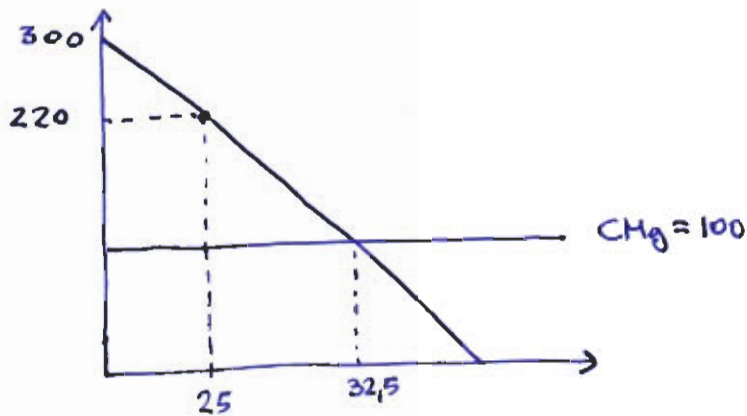


Investment

Santander Central Hispano

PI a) Enunciado $\Rightarrow q = 5$ cajas/semana $\Rightarrow Q = nq = 5 \times 5 = 25$ cajas semana

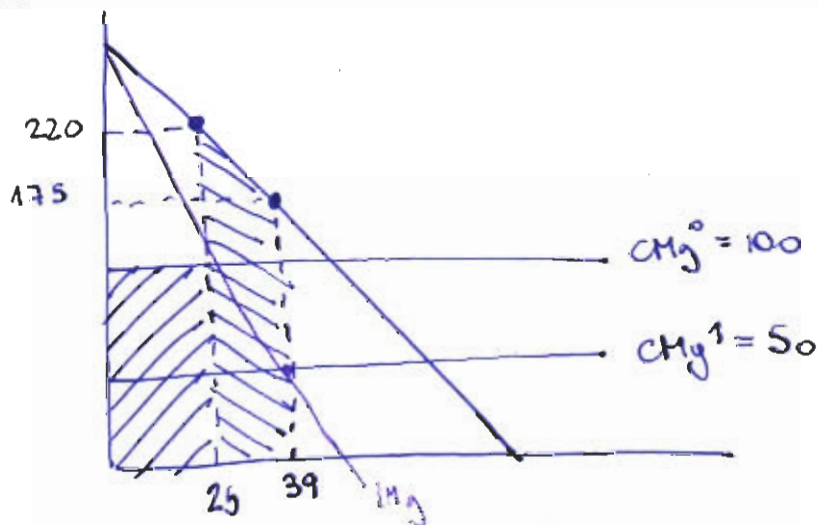
$$\begin{aligned} \text{Dda: } P &= 300 - 3,2Q \\ &= 300 - 3,2 \times 25 \\ &= 220 \end{aligned}$$



(En competencia perfecta: $Q \Rightarrow P = CM_g \Rightarrow 100 = 300 - 3,2Q \Rightarrow Q = 32,5$)

$$b) \pi = P(Q)Q - C(Q) = (300 - 3,2Q)Q - 200 - 50Q$$

$$\frac{\partial \pi}{\partial Q} = 300 - 6,4Q - 50 = 0 \Rightarrow \begin{aligned} Q &= 39 \\ P &= 175 \end{aligned}$$



c) ↑ consumo

$$(39-25) \times 175 + \frac{(220-175)(39-25)}{2} = 2.765 \text{ M\$ / semana}$$

Liberar euros

$$25 \times 100 = 2.500 \text{ M\$ / semana}$$

⇒

$$\text{BSB} = (2.765 + 2.500) \times 52 = 273.780 \text{ M\$ / año}$$

d) Año 1 → 4

$$\begin{aligned} \text{Chg social} &= 50 (20\% \times 0,98 + 10\% \times 0,68 + 15\% \times 0,62 + 20\% \times 1,01 + 15\% \times 0,45 \\ &\quad + 10\% \times 0 + 10\% \times 1) \\ &= 50 \times 0,7265 \\ &= 36,325 \end{aligned}$$

Año 5 → 10

$$\begin{aligned} \text{Chg social} &= 50 (20\% \times 1 + 10\% \times 0,94 + 15\% \times 0,89 + 20\% \times 1,01 + 15\% \times 0,45 \\ &\quad + 10\% \times 0 + 10\% \times 1) \\ &= 50 \times 0,797 \\ &= 39,85 \end{aligned}$$

Costo social TOTAL:

$$\text{Año 1} \rightarrow 4 : 36,33 \frac{\text{M\$}}{\text{caja}} \times 39 \frac{\text{caja}}{\text{semana}} \times 52 \frac{\text{semana}}{\text{año}} = 73.667 \text{ M\$ / año}$$

$$\text{Año 5} \rightarrow 10 : 39,85 \times 39 \times 52 = 80.816 \text{ M\$ / año}$$

$$\begin{aligned} \text{VPN social} &= -100.000 + \sum_{i=1}^4 \frac{273.780 - 73.667}{1,01^i} + \sum_{i=5}^{10} \frac{273.780 - 80.816}{1,01^i} \\ &= 1.755.477 \text{ M\$} \end{aligned}$$

e) Beneficios privados = $175 \times 39 \times 52 = 354.900 \text{ M\$}$
 Contr = $50 \times 39 \times 52 + 20$
 $(200 + 50 \times 39) \times 52 = 111.800 \text{ M\$}$



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Flujo de caja :

Ingresos =	354.900
Gastos =	111.800
Depreciados =	10.000
<hr/>	
UAI	233.100
T = 17%	39.627
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UDI	193.473
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Depreciados	10.000
<hr/>	
FC	203.473

$$UAI = 233.100$$

$$T = 17\%$$

$$UDI = 193.473$$

$$VPN = 1.927.155 \text{ M\$}$$