

Bedah, ring 7

Oppg. 2a)

$$DB = Resultat + Fk$$

$$DB = DG \cdot T1$$

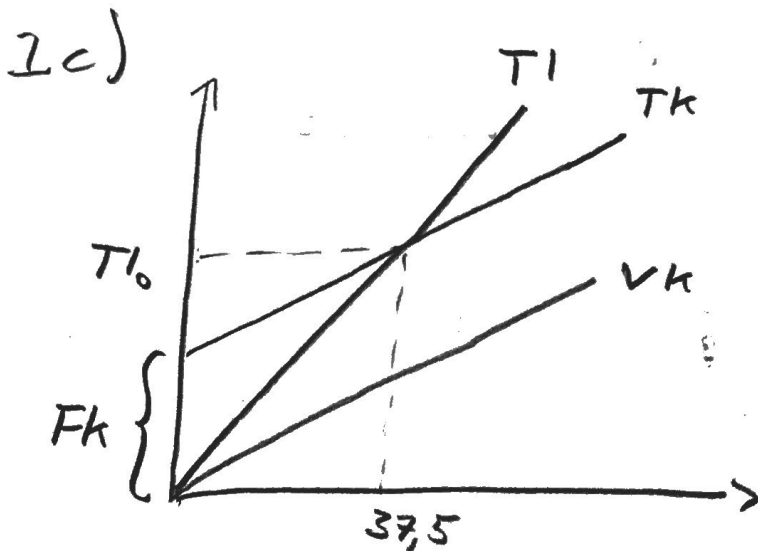
$$T1 = \frac{R + Fk}{DG} = 36,75 \cdot 10^6$$

$$1b) T1_0 = \frac{Fk}{DG} = \frac{15}{9,4} \cdot 10^6 = 37,5 \cdot 10^6$$

$$SM = \frac{T1 - T1_0}{T1}$$

$$SM = \frac{R + Fk - Fk}{R + Fk} = \frac{R}{R + Fk}$$

$$SM = -0,02 = -2\%$$



1d) A1)

$$T1_1 = T1 \cdot 1,1$$

$$VK_1 = VK \cdot 0,95$$

$$FK_1 = 17 \cdot 10^6$$

$$R_1 = DB \cdot T1_1 - TK_1$$

$$R_1 = 2,5 \cdot 10^6$$

A2)

$$T1_2 = T1 \cdot 0,95 \cdot 1,1$$

$$TK_2 = TK$$

$$R_2 = 8,5 \cdot 10^5$$

$R_1 > R_2 \rightarrow$ bør følge alternativ 1

Oppg. 2a) $M_{kup} = 19000 \text{ h}$ $S_{kup} = 14000 \text{ h}$

$$t_{N,s} = \frac{65}{60}$$

$$t_{N,m} = 12$$

$$VK_N = 90$$

$$T_N = 150$$

$$t_{B,s} = \frac{65}{60}$$

$$t_{B,m} = 1$$

$$VK_B = 140$$

$$T_B = 190$$

$$DB_N = 60 \quad DB_B = 50$$

Delmingsberegning: $DB_T = N_N DB_N + N_B DB_B$

Begrensning: $N_N t_{N,s} + N_B t_{B,s} \leq S_{kup} \quad (I)$

$$N_N t_{N,m} + N_B t_{B,m} \leq M_{kup}$$

$$\frac{\partial DB_T}{\partial N_N} > 0, \quad \frac{\partial DB_T}{\partial N_B} > 0 \rightarrow \text{Sjekk for langs runden}$$

$$N_N = \frac{S_{kup} - N_B t_{B,s}}{t_{N,s}} \quad (II)$$

$$\begin{aligned} DB_T &= \left(\frac{S_{kup} - N_B t_{B,s}}{t_{N,s}} \right) DB_N + N_B DB_B \\ &= \left(\frac{S_{kup}}{t_{N,s}} \right) DB_N + N_B \underbrace{(DB_B - DB_N)}_{< 0} \end{aligned}$$

$$N_N = \frac{M_{kup} - N_B t_{B,m}}{t_{N,m}} \quad (III)$$

$$DB_T = \left(\frac{M_{kup}}{t_{N,m}} \right) DB_N + N_B \underbrace{\left(DB_B - \frac{1}{2} DB_N \right)}_{> 0}$$

Før et max i skjæringspunktet (II, III)

$$\left. \begin{aligned} N_N + N_B &= \frac{60}{65} S_{kup} \\ 2N_N + N_B &= M_{kup} \end{aligned} \right\} \begin{aligned} N_N &= 6077 \\ N_B &= 6850 \end{aligned} \rightarrow DB_T = 7,07 \cdot 10^5$$

Optimal produktmix

$$2b) \quad L_N = 1, \quad L_B = 2,1, \quad L_{kup} = 17500$$

$$\text{Ny Bælgrensning: } N_N L_N + N_B L_B \leq L_{kup}$$

$$N_N = L_{kup} - N_B L_B \quad (IV)$$

$$DB_T = L_{kup} DB_N + N_B \underbrace{(DB_B - L_B DB_N)}_{< 0}$$

Max i Skjæringspunktet (IV, III), givet at dette tilfredsstiller (I)

$$\left. \begin{aligned} N_N &= L_{kup} - N_B L_B \\ N_N &= \frac{M_{kup} - N_B t_{B,m}}{t_{N,m}} \end{aligned} \right\} \begin{aligned} N_N &= 7000 \\ N_B &= 5000 \end{aligned}$$

$$2c) S_{Tot} = N_N t_{NS} + N_B t_{BS} = 13000 h$$

$$M_{Tot} = 19000 h \text{ (Fra III)}$$

$$L_{Tot} = 17500 kg \text{ (Fra IV)}$$

$$2d) DB_T = N_N DB_N + N_B DB_B = 670\,000$$

$$R = DB_T - FK = 50\,000$$

$$FK = 620\,000$$

Oppg. 3a) A, Fordi Begge er over null-
punkt og A har lavest VK

3b) A får størst overskudd Fordi:

$$VK_A < VK_B$$

B får minst underskudd ved samme
argument

$$3c) DG = \frac{DB}{TI} = \frac{TI - VK}{TI} = 1 - \frac{VK}{TI}$$

$$TI_A = TI_B, VK_A < VK_B$$

$$\rightarrow \underline{DG_A < DG_B}$$

$$3d) SM\% = \frac{R}{R + FK} \cdot 100\%$$

Vanstøelig å lese av R ...

$$FK_A > FK_B$$

$$\rightarrow \underline{SM_A < SM_B}$$

3e) A har stor FK og lav VK $\rightarrow$ sur ut
som de satser på stor vekst