$A = (\underbrace{x_4\ x_2\ x_3}_{N_2}\ \underbrace{x_1\ x_5\ x_6}_{B_2})$

$$\gamma_2 = c_{N_2}^T - c_{B_2}^T B_2^{-1} N_2 = (0\ -3\ 1) - (-1\ 0\ 0)\begin{pmatrix} 1/2 & 1/2 & 0 \\ -1/2 & 1/2 & 3 \\ -1 & 0 & 3 \end{pmatrix}$$

$$= (0\ -3\ 1) - (-1/2\ -1/2\ 0) = (1/2\ -5/2\ 1)$$

- Criterio ottimalità non soddisfatto
- = illimitatezza = =

$h = 2 \rightarrow x_2$ entrante

- scelgo k

$$\min\left\{\frac{(B^{-1}b)_i}{(\Pi_h)_i}\right\} = \min\left\{\frac{3/2}{1/2}\ \frac{9/2}{1/2}\ \frac{5}{0}\right\} \Rightarrow k = 1 \rightarrow x_1 \text{ uscente}$$

$k=1 \rightarrow$

$$M = \left(\begin{array}{c|ccc|c} \Pi_h & \Pi_1 & e_k & \Pi_3 & B_2^{-1}b \\ 1/2 & 1/2 & 1 & 0 & 3/2 \\ 1/2 & -1/2 & 0 & 3 & 9/2 \\ 0 & -1 & 0 & 3 & 5 \end{array}\right) = \left(\begin{array}{c|ccc|c} -1 & -1 & 2 & 0 & 3 \\ 0 & -1 & -1 & 3 & 3 \\ 0 & -1 & 0 & 3 & 5 \end{array}\right)$$

$B_3^{-1}N_3$ $\quad B_3^{-1}b$

$A = (\underbrace{x_4\ x_1\ x_3}_{N_3}\ \underbrace{x_2\ x_5\ x_6}_{B_3})$

$$\gamma_3 = c_{N_3}^T - c_{B_3}^T B_3^{-1} N_3 = (0\ -1\ 1) - (-3\ 0\ 0)\begin{pmatrix} -1 & 2 & 0 \\ -1 & -1 & 3 \\ -1 & 0 & 3 \end{pmatrix} =$$

$$= (0\ -1\ 1) - (-3\ -6\ 0) = (3\ 5\ 1)$$

- Criterio ottimalità soddisfatto

$$x^* = (\overset{x_1}{0}\ \overset{x_2}{3}\ \overset{x_3}{0}\ \overset{x_4}{0}\ \overset{x_5}{3}\ \overset{x_6}{5})$$

- soluzione ott in FS $\rightarrow$ $(\overset{x_1}{0}\ \overset{x_2}{3}\ \overset{x_3}{0})$

$x_B^* = B^{-1}b \geq 0_m$

$x_N^* = 0_m$