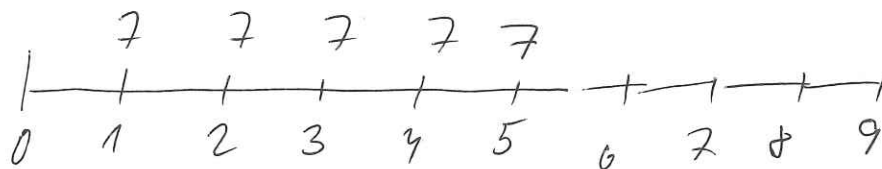


$$n = 9$$

$$c = 0,07$$

$$ym = 0,08$$

$$m = 5 \text{ let}$$

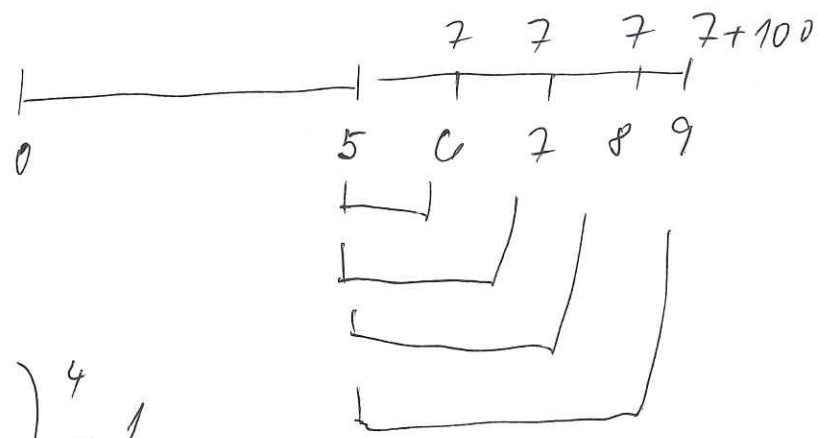


①

$$\begin{aligned} & 7 \cdot (1+0,08)^4 + \\ & + 7 \cdot (1+0,08)^3 + \\ & + 7 \cdot (1+0,08)^2 + \\ & + 7 \cdot (1+0,08) + \\ & + 7 = \end{aligned}$$

$$7 \cdot \frac{(1+0,08)^5 - 1}{0,08} = \underline{\underline{41,0662}}$$

②



$$P_5 = \frac{7}{1+0,08} \cdot \frac{\left(\frac{1}{1+0,08}\right)^4 - 1}{\frac{1}{1+0,08} - 1} + \frac{100}{(1+0,08)^4} = 96,6878$$

$$\rightarrow = 100 - 96,6878 = \underline{\underline{-3,31}}$$

$$P_5 = P_{01} \quad YTM = 0,07 = 100$$

$$\textcircled{3} \quad PV_0 = 100$$

$$FV_5 = 41,0662 + 96,6878 = 137,754$$

$$\sqrt[5]{\frac{137,754}{100}} - 1 = 0,0662 \rightarrow \underline{\underline{6,62\%}}$$

$$\textcircled{4} \quad \Delta \% = \frac{3,4495 - 2,8559}{5-3} = 0,2968$$

$$YTM = 2,8559\% + 0,2968\% = \underline{\underline{3,1527\%}}$$

$$\textcircled{5} \quad c = 9\% \rightarrow 2,25\%$$

$$m = 3 \rightarrow 12 \text{ 'PERIODES'}$$

$$YTM = 11\% \rightarrow 2,75\%$$

$$P_B = \frac{2,25}{(1+0,0275)} \cdot \frac{\left(\frac{1}{1+0,0275}\right)^{12} - 1}{\frac{1}{1+0,0275} - 1} + \frac{100}{(1+0,0275)^{12}} =$$

$$= 22,7345 + 72,2134 = \underline{\underline{94,9479}}$$

$$\textcircled{6} \quad FV_n = PV \cdot (1 + YTM)^n$$

$$100 = 75 \cdot \left(1 + \frac{YTM}{12}\right)^{12 \cdot 4}$$

$$\sqrt[48]{\frac{100}{75}} - 1 = \frac{YTM}{12}$$

$$YTM = 0,072136 \rightarrow \underline{\underline{7,214\%}}$$

$$\textcircled{4} d = \frac{L1302 + 0,01}{2} = \frac{1,302}{2}$$

$$P_0 = 94$$

$$FV = 100$$

$$YTM = \frac{L1302 + DM}{2} = r$$

$$94 = \frac{0,9}{1+r} + \frac{0,9}{(1+r)^2} + \frac{0,9}{(1+r)^3} + \frac{100,9}{(1+r)^4}$$

$$r \rightarrow \text{EXCELL} \Rightarrow \underline{\underline{r = 0,016818}}$$

$$\frac{L1302 + DM}{2} = 0,016818$$

$$DM = 2 \cdot 0,016818 - 0,01$$

$$DM = 0,023636 \Rightarrow \underline{\underline{2,3636\%}}$$

$\textcircled{5}$ HW

$$\textcircled{9} YTM = ?$$

$$d = 4,25\%$$

$$n = 180$$

$$m = 360$$

$$FV = 100$$

$$d = \frac{FV - PV}{FV} \cdot \frac{365}{180}$$

$$\cancel{0,0425} = \frac{100 - PV}{100} \cdot \frac{365}{180}$$

$$PV = 94,845$$

$$YTM = \frac{100 - 94,845}{94,845} \cdot \frac{360}{180} = 0,043422 \Rightarrow \underline{\underline{4,3422\%}}$$

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$$Z_3 = \sqrt[3]{(1+0,008) \cdot (1+0,0112) \cdot (1+0,0394)} - 1$$

A) $Z_3 = 1,94\%$

B) $P_0 = \frac{3,5}{1+0,008} + \frac{103,5}{(1+0,008) \cdot (1+0,0112)} = \underline{\underline{105,01}}$