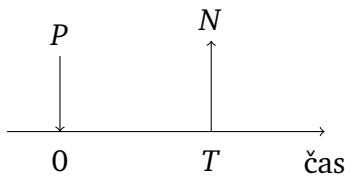
OBRESTNE MERE IN OBRESTOVANJE



$N = P \cdot A(0,T)$; $A(0,T)$ obrestovalni faktor

$P = N \cdot D(0,T)$; $D(0,T)$ diskontni faktor

Navadno obrestovanje

Nominalna obrestna mera R_N

$$A(0,T) = 1 + R_N T; \quad T \in \mathbb{R}$$

$$D(0,t) = (1 + R_N T)^{-1}; \quad T \in \mathbb{R}$$

Nominalno obrestno mero pri navadnem obrestovanju bomo označevali z L.

Obrestno obrestovanje

Diskretno (k-krat na leto)

Nominalna obrestna mera R_N

$$A(0, \tfrac{h}{k}) = (1 + \tfrac{R_N}{k})^h; \quad h \in \mathbb{N}$$

Efektivna obrestna mera R_E

$$D(0, \tfrac{h}{k}) = (1 + \tfrac{R_N}{k})^{-h}; \quad h \in \mathbb{N}$$

$$(1 + R_E) = (1 + \tfrac{R_N}{k})^k$$

$$R_E = (1 + \tfrac{R_N}{k})^k - 1$$

Obresti pripišemo glavnici v trenutkih $\frac{h}{k}$; $h \in \mathbb{N}$.

$$R_N = k\left((1 + R_E)^{1/k} - 1\right)$$

Med točkama $\frac{h}{k}$ in $\frac{h+1}{k}$ uporabimo navadno obrestovanje (daljica).

<u>Primeri</u>:

(a) *letno* ($k = 1$) obrestovanje

$$A(0,h) = (1 + R_N)^h; \quad h \in \mathbb{N} \qquad R_N = R_E$$

$$D(0,h) = (1 + R_N)^{-h}; \quad h \in \mathbb{N}$$

(b) *mesečno* ($k = 12$) obrestovanje

$$A(0, \tfrac{h}{12}) = (1 + \tfrac{R_N}{12})^h; \quad h \in \mathbb{N} \qquad R_E = (1 + \tfrac{R_N}{12})^{12} - 1$$

$$D(0, \tfrac{h}{12}) = (1 + \tfrac{R_N}{12})^{-h}; \quad h \in \mathbb{N} \qquad R_N = 12\left((1 + R_E)^{1/12} - 1\right)$$

Zvezno

Nominalna obrestna mera R_N $\quad A(0,T) = e^{R_N T} = (1+R_E)^T; \quad T \in \mathbb{R}$

Efektivna obrestna mera R_E $\quad D(0,T) = e^{-R_N T} = (1+R_E)^{-T}; \quad T \in \mathbb{R}$

$(1+R_E) = \lim_{k\to\infty}(1+\frac{R_N}{k})^k = e^{R_N}$ $\quad R_E = e^{R_N} - 1 \quad R_N = \ln(1+R_E)$

Nominalno obrestno mero pri zveznem obrestovanju bomo označevali z Y in ji rekli *moč obresti*.