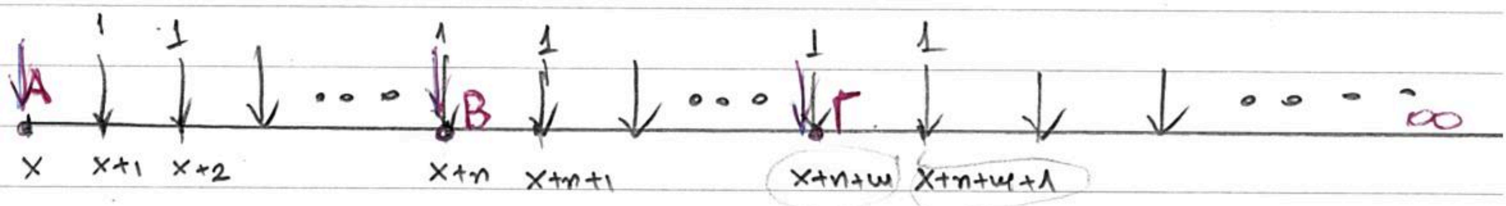
Ληξιπρόθεσμες (προκαταβλητέες)

$$A_{x:\overline{n}|}^{\;\;1} = \frac{D_{x+n}}{D_x} \qquad D_x = v^x l_x$$



$$1 + A_{x:\overline{1}|}^{\;\;1} + A_{x:\overline{2}|}^{\;\;1} + \dots + A_{x:\overline{n}|}^{\;\;1} + A_{x:\overline{n+1}|}^{\;\;1} + \dots + A_{x:\overline{n+m}|}^{\;\;1} + A_{x:\overline{n+m+1}|}^{\;\;1} + \dots$$

$$\frac{D_x}{D_x} + \frac{D_{x+1}}{D_x} + \frac{D_{x+2}}{D_x} + \dots + \frac{D_{x+n}}{D_x} + \frac{D_{x+n+1}}{D_x} + \dots + \frac{D_{x+n+m}}{D_x} + \frac{D_{x+n+m+1}}{D_x}$$

A∞

$$\ddot{a}_x = \frac{1}{D_x}\sum_{t=1}^{\infty} D_{x+t} = \frac{N_{x+1}}{D_x}$$

B∞

$${}_{n|}\ddot{a}_x = \frac{1}{D_x}\sum_{t=n}^{\infty} D_{x+t} = \frac{N_{x+n+1}}{D_x}$$

AB

$$\ddot{a}_{x:\overline{n}|} = \frac{1}{D_x}\sum_{t=1}^{n} D_{x+t} = \frac{1}{D_x}\left(\sum_{t=1}^{\infty} D_{x+t} - \sum_{t=n+1}^{\infty} D_{x+t}\right)$$

$$= \frac{N_{x+1} - N_{x+n+1}}{D_x} = \ddot{a}_x - {}_{n|}\ddot{a}_x$$

BΓ

$${}_{n|}\ddot{a}_{x:\overline{m}|} = \frac{1}{D_x}\sum_{t=n+1}^{n+m} D_{x+t} = \frac{1}{D_x}\left(\sum_{t=n+1}^{\infty} D_{x+t} - \sum_{t=n+m+1}^{\infty} D_{x+t}\right)$$

$$= \frac{N_{x+n+1} - N_{x+n+m+1}}{D_x} = \cancel{\ddot{a}_x - {}_{n|}\ddot{a}_{x:\overline{m}|}}$$

$$= {}_{n|}\ddot{a}_x - {}_{n+m|}\ddot{a}_x$$