Angespartes Vermögen am Ende der jeweilige Periode t, t+1, t+2,…t+T :

$$t: \quad \bar{s} \quad = \bar{s} \sum_{j=1}^{1} (1+r)^{1-j} = \bar{s} \frac{1-(1+r)^1}{1-(1+r)}$$

$$t+1: \quad \bar{s} + \bar{s}(1+r)^{2-1} = \bar{s} \sum_{j=1}^{2} (1+r)^{2-j} = \bar{s} \frac{1-(1+r)^2}{1-(1+r)}$$

$$t+2: \quad \bar{s} + \bar{s}(1+r)^1 + \bar{s}(1+r)^{3-1} = \bar{s} \sum_{j=1}^{3} (1+r)^{3-j} = \bar{s} \frac{1-(1+r)^3}{1-(1+r)}$$

$$t+3: \quad \bar{s} + \bar{s}(1+r)^1 + \bar{s}(1+r)^2 + \bar{s}(1+r)^{4-1} = \bar{s} \sum_{j=1}^{4} (1+r)^{4-j} = \bar{s} \frac{1-(1+r)^4}{1-(1+r)}$$

...

$$t+T: \quad \bar{s} + \bar{s}(1+r)^1 + \bar{s}(1+r)^2 + \bar{s}(1+r)^3 + \ldots + +\bar{s}(1+r)^{T-1} = \bar{s} \sum_{j=1}^{T} (1+r)^{T-j} = \bar{s} \frac{1-(1+r)^T}{1-(1+r)}$$

=> Arithmetisches Mittel der Vermögenshöhe im Zeitraum t bis T :

$$\frac{1}{T}\left(\bar{s} \frac{1-(1+r)^1}{1-(1+r)} + \bar{s} \frac{1-(1+r)^2}{1-(1+r)} + +\bar{s} \frac{1-(1+r)^3}{1-(1+r)} + \bar{s} \frac{1-(1+r)^4}{1-(1+r)} + \ldots + \bar{s} \frac{1-(1+r)^T}{1-(1+r)} \right)$$

<=>

$$\bar{s} \frac{1}{T*r}\left((1+r)^T - T - 1 - \frac{1-(1+r)^T}{1-(1+r)} \right)$$