

$$\tau = \frac{RNI}{RNc} = \frac{\sum_{i=0}^{T-1} (1 - \delta_i)^i}{U} = 1 + \frac{RN a}{RNc} = 1 + \frac{\sum_{i=U}^{T-1} (1 - \delta_i)^i}{U}$$