$$\begin{cases} N_{n+1} = N_n + N_n Kp\left(1 - \dfrac{N_n + r\sum_{i=0}^{n-1} N_i}{C_n}\right) - N_n r \\ C_{n+1} = C_n + \left(N_{n+1} - N_n(1-r)\right)K\left(1 - \dfrac{C_n}{T}\right) \end{cases}$$