$$S(x) = \prod_{i=1}^{x}(1 - B_i) + \sum_{i=1}^{x} B_i \cdot e^{(i-x-1)\cdot r} \cdot \prod_{j=1}^{i-1}(1 - B_j) \qquad (1)$$

$$B_x = \begin{cases} 0 & \text{if } x < -\frac{a}{b} = t_0 \\ ax + b & \text{if } -\frac{a}{b} \leq x \leq \frac{1-a}{b} \\ 1 & \text{if } x > \frac{1-a}{b} = t_1 \end{cases}$$

$$S(x) = \prod_{i=1}^{\min(x,t_1)}(1-ai-b) + \sum_{i=1}^{\min(x,t_1)}(ai+b)\cdot e^{(i-x-1)r}\cdot\prod_{j=1}^{i-1}(1-aj-b) + \sum_{i=t_1+1}^{x} e^{(i-x-1)r}\cdot\prod_{j=1}^{t_1}(1-aj-b)$$
$$\qquad (2)$$