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

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

$$S(x) = \prod_{i>t_0}^{\min(x,t_1)} (1 - ai - b) + \sum_{i>t_0}^{\min(x,t_1)} (ai + b) \cdot e^{(i-x-1)r} \cdot \prod_{j>t_0}^{i-1} (1 - aj - b) \tag{2}$$