$$
\begin{aligned}
t_0 &< t < T; T \to \infty \\
t^* &= \left(\frac{\alpha}{1-\alpha}\right)\frac{1}{r} - \frac{H_0^{1-\alpha}}{A\,(1-\alpha)} \\
t &= t_0 \Rightarrow H(t) = H_0 \\
\\
t_0 &< t < t^* \Rightarrow H(t) = (A\,(1-\alpha)\,t + H_0^{1-\alpha})^{\frac{1}{1-\alpha}} \\
t &= t^* \Rightarrow H(t) = \left(\frac{\alpha A}{r}\right)^{\frac{1}{1-\alpha}} \\
t^* &< t \Rightarrow R(t) = \left(\frac{\alpha A}{r}\right)^{\frac{\alpha}{1-\alpha}} (t-t^*) + H(t^*)
\end{aligned}
$$