$y(t) \geq 0$ - wartość kapitału

$u(t)y(t)$

$(1-u(t))y(t)$ $\qquad u(t) \in \langle 0,1 \rangle$

$u(t)y(t)$ - paraduje wzrost kapitału

$$\begin{cases} y' = uy \\ y(0) = x > 0 \end{cases} \qquad \underline{x=1}$$

$(1-u(t))\,y(t)$

$$J_T(y(\cdot), u(\cdot)) = \int_0^T ((1-u(t))\,y(t))^{\alpha}\,dt + a y^{\alpha}(T) \qquad a>0 \quad \alpha \in (0,1)$$

$$\max \sum_{i=0}^{K} ((1-u_i)y_i)^{\alpha} + a y_K^{\alpha} \qquad (y_1, \dots, y_K, u_1, \dots, u$$

$$y_{k+1} - y_k = u_i y_i \qquad i = 0, \dots, K-1$$

$$y_0 = x \quad y_k \geq 0 \qquad 1 \geq u_i \geq 0.$$

usunąć więzy - f-cja kary