

Macroeconomics

Homework 3

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- $\max_{c_t} \sum_{t=0}^{\infty} \{\beta^t \ln(c_t)\}, \quad 0 < \beta < 1,$
- s.t. $c_t + k_{t+1} = \ln(k_t),$
- or $c_t + \sum_{j=1}^{\infty} [\prod_{h=1}^j (k_{t+h})] c_{t+j} = \ln(k_t), \quad (1)$

- State the meaning of eq.(1),
- Find the Euler equation,
- Find an optimal investment function.
- Find an optimal rate of economic growth.