

ECON 634 Problem Set 2

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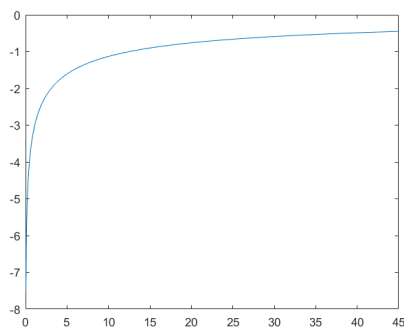
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1. The functional equation of the dynamic programming problem is

$$V(k) = \max_{k'} \left\{ \frac{[A^h k^\alpha + (1 - \delta)k - k']^{(1-\sigma)}}{1 - \sigma} + \beta \mathbb{E}V(k') \right\}$$

where k is the state variable and k' is the control variable.

2. Yes, according to the plot of the value function over K , it is concave and increasing in K .



3. Yes, according to the plot of the policy function over K , it is concave and increasing in K .

