

Economics 614: Macroeconomics

Spring, 2010

Cornell University

Problem Set #14

Due: Friday, May 14, 2010

$y = 10$, $u(c) = 100 \log(c)$, $\bar{u} = 20$, $R_i = 1.1$, $R_l = 1.08$, $\beta = 0.7$,

The random variable α has 3 possible realizations: 0.10, 0.20, 0.40.

$\text{Prob}(\alpha = 0.10) = 1/6$, $\text{Prob}(\alpha = 0.20) = 2/3$, $\text{Prob}(\alpha = 0.40) = 1/6$.

1. What is the probability that a given consumer, consumer j , becomes patient?
2. Consumer j has found out that she is patient. What are her updated values of $\text{Prob}(\alpha = 0.10)$, $\text{Prob}(\alpha = 0.20)$, $\text{Prob}(\alpha = 0.40)$?
3. Write down the bank's problem in the unified system.
4. Write down the bank's problem in the separated system.