

Economics 614: Macroeconomics

Spring, 2010

Cornell University

Problem Set #13

Due: Friday, May 14, 2010

$y = 10$, $u(c) = 100 \log(c)$, $\bar{u} = 20$, $R_i = 1.1$, $R_t = 1.08$, $\beta = 0.7$,
 $\alpha = 0.5$ (no aggregate liquidity shock)

1. Assume that types (I and P) are public knowledge. Write down the expression for W for the unrestricted bank. Define all variables and interpret them.
2. What is the welfare-maximizing solution to W (the so-called "constrained" first best solution) for the unrestricted bank.
3. Interpret the properties of the solution in 2.
4. Assume that types (I and P) are private knowledge. Write down and interpret the incentive compatibility constraint for the unrestricted bank.
5. Is the first-best allocation incentive compatible?
6. Is there a run equilibrium?

The Restricted Bank and the Separated System.

7. Do (1)-(6) for the separated system.
8. Do the sunspots analysis of the restricted bank.