

ECON 5110 Problem Set #4

Please type and turn in at the beginning of class on Thursday, April 26, 2012

1. Search Equilibrium.
 - (a) Show mathematically and graphically how the social optimum can be reached in Diamond's (1982) static model.
 - (b) Under what conditions does Diamond's dynamic model exhibit a unique steady-state equilibrium? Under what conditions does the model exhibit two steady-state equilibria? Draw the phase diagram for each cases and describe the transition dynamics.
2. Efficiency Wages. Consider the 1990 *QJE* article "The Fair Wage-Effort Hypothesis and Unemployment" by Akerlof and Yellen. Write a short essay (one page or less) that compares the Akerlof/Yellen explanation for unemployment to that of Shapiro/Stiglitz. Use a graphical analysis to support your comparison.
3. Rules versus Discretion.
 - (a) Consider the aggregate demand management example in Kydland and Prescott (1977). How does the optimality of the optimal control solution differ when the social welfare function is described by a function where $u_t = u^*$ and $x_t = 0$ is a bliss point? Use a graph to support your argument.
 - (b) Using the same example, discuss the social optimality of the consistent solution when the expectation mechanism is described by (i) naive expectations, (ii) adaptive expectations, (iii) least squares learning, and (iv) perfect foresight.