

Problem Set 2

1. Consider the Recursive Competitive Equilibrium defined in the notes. Show that the function G^* resulting from solving the planner's problem can be used to build up a Rational Expectations Recursive Competitive Equilibrium.
2. For the RCE with public goods, prove that if the budget constraint for the household and for the government are satisfied and the markets for labor and capital services clear, then the feasibility constraint is automatically satisfied
3. For the RCE with public goods, prove that when the government finances the provision of these goods using linear taxes, the resulting equilibrium is not optimal.
4. For the RCE with heterogeneous agents, state sufficient conditions under which the aggregate capital stock is a sufficient statistic for each household to solve his problem.