Economics 268 Luigi Bocola
International Finance and Exchange Rates Spring 2019

Problem Set 3

This is a group project. Please, prepare computer codes and a set of slides going over the problem set and choose a group member to present them in class on Thursday June 6^{th}.

Heterogeneity and Aggregation: Implications for Labor-market fluctuations.. Please, read the 2007 paper "Heterogeneity and Aggregation: Implications for Labor-market fluctuations" by Chang and Kim on the American Economic Review. The problem set asks each group to solve the model outlined in Section 2 of the paper with one of the three methodologies: i) the Reiter (2009) method, and its implementation described in Winberry (2018); ii) the Boppart, Krussel and MITman (2018) method; iii) the Auclert, Bardoczy, Rognlie and Straub (2019) method. Please, modify the codes provided by the authors to solve the model by Chang and Kim (2007).

When preparing the slides, please go over the following

- Set up the model and define an equilibrium.
- Describe in detail the steps of the numerical algorithm to solve the model. Start from the computation of the model without aggregate shocks (the "steady state") and describe how to solve the model with aggregate shocks.
- Give an overview of the computer codes provided by the authors (possibly going over the organization of the scripts).
- Set the parameters at their value in Table 1 of the paper and solve for an equilibrium of the model. Discuss the complications you encountered when modifying the original codes.
- Report the results. Specifically, replicate Table 2, 3 and 4 in the paper.
- Discuss to what extent imperfect risk sharing can account for the movements in the aggregate labor wedge, explaining the main economic mechanisms proposed by Chang and Kim (2007).