ECON 8402. International Macro

University of Minnesota, Fall, 2021, Manuel Amador

This problem set is due on **Tuesday November 30**.
Please submit your problem set answers (in a single PDF file) here:
https://www.dropbox.com/request/I9ntFmr51WNbVRTZgmjQ

Everyone should write their own individual answers, but you are encouraged to work in groups.

1 Numerical analysis of Eaton-Gersovitz

The following asks you to work with the version of Eaton-Gersovitz used by Arellano (08). You can find the code, and the basic parameters here:
https://julia.quantecon.org/multi_agent_models/arellano.html
(There is also a version for Python).

1. Compute the ergodic distribution of endowment, assets (debt) and default states.
2. Plot the marginal ergodic distribution of debt. What is the average level of debt? What is the maximum level of debt?
3. What fraction of time is the country in a default state?
4. What is the average output loss in default?
5. How does the answers above change if the cost of default is linear? That is, if $y^D(s^t) = 0.98y(s^t)$? (This is the value used in Aguiar-Gopinath (06)).
6. Following from above, discuss the role of the non-linear default costs.
7. Consider now increasing the risk aversion coefficient so that $u = c^{1-\gamma}/(1-\gamma)$ with $\gamma = 10$. How do the implications of the model change?
8. What happens if you make the government as patient as the foreign interest rate? What is now the debt level in the ergodic distribution?