Readme

to replicate Figures 2 and 3

in “The Emergence of Market Structure” (2021)

by Maryam Farboodi, Gregor Jarosch, Robert Shimer

Data Availability Statement: This paper does not involve analysis of external data (i.e., the only data are generated by the authors via simulation).

There are two reproducible figures in the manuscript, figures 2 and 3 (they are separately contained in this zip folder). The underlying results can be reproduced using the Mathematica file “birth-death.nb” only. The file is commented and separately saved as a pdf in this folder.

There are no data going into the file, it just solves our model numerically.

To solve the model, the file solves a system of differential equations, as described in the manuscript. It first solves the equilibrium version of our model which produces the blue lines in the two figures. If first produces the numbers in figure 3, and then in figure 2. It proceeds to do the same (with almost the same mathematical structure) for the optimum version of our model (red lines).

The output is saved in 4 different .dat files which are separately included in the zip file. We turn these into figures using tikz. The 4 files are

optimum\_r0.05\_gamma2.75\_c0.001 (red line, figure 2)

optimum\_r0.05\_gamma2.75 (red line, figure 3)

equilibrium\_r0.05\_gamma2.75\_c0.001 (blue line, figure 2)

equilibrium\_r0.05\_gamma2.75 (blue line, figure 3)

The file replicating\_figures.tex pulls these data files and re-creates the two figures.