

Replication instructions for:

“Instability of Endogenous Price Dispersion Equilibria: a Simulation”

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HOW TO REPLICATE THE SIMULATION

1. Open the “code.nb” file with Wolfram Mathematica. Versions older than 11 should still work, but may get a warning message. Try anyway.
2. Without reading further, you can run the code as a whole with the menu entry: “Evaluation/Evaluate Notebook”. On my laptop, that takes about 20 minutes, mostly driven by a few large- N cases.
3. Mathematica content is organized into “cells”, and there are four types of cells in this file: headings, text, input code, and output. Input code is distinguished by a boldface monospaced font with colorful markup. You can “evaluate” (=run) any input cell by clicking anywhere in the cell, then typing SHIFT+ENTER. Output cells will be generated (and existing output cells will be replaced).
Cells can be grouped and ungrouped by double-clicking on the group marker on the very right edge of the window. Most cells in the file are grouped right now to make the structure of the document easier to see.
4. Each variation of the simulation is clearly marked with headings. Simply open up the grouping, then evaluate the cell you are interested in. At the first evaluation, you will be prompted to “evaluate initialization cells” – I recommend you click “yes”.

HOW TO GENERATE THE FIGURES

1. All the figures used the paper (and more) are already in the file. Look for the corresponding section and open up all the cell groupings.
2. To re-create a figure, evaluate its code (it will have “Plot” or “ListPlot” in it) – but note that you will need to run the corresponding simulation first to place its results into working memory.

HOW TO GENERATE THE TABLES

1. Open up the corresponding section; statistics of the simulation will be displayed in output cells. Same as the figures, they can be re-created by evaluating the corresponding code. The tables were created by hand, by collecting the respective numbers from their sections.