Read Me

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Abstract

Replication instructions for *Economic Agents as Imperfect Problem Solvers* published in the Quarterly Journal of Economics.

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Instructions for Replication of Model Solutions:

Software:

The code was last tested on Matlab R2021b, and requires Matlab's Parallel Computing Toolboxes.

Hardware:

These programs have no special hardware requirements. However, running the full replication of the quantitative model ($T = 10,000$ and $N = 5,000$) might be computationally intensive and takes about 5 hours on a Linux computational server with 24 active cores.

In practice, we have found that a smaller simulation of size $T = 1,500$ and $N = 250$ produces quantitative moments very close to those of the large, benchmark simulation. With these smaller simulation parameters the code runs very fast, and takes only a few minutes on a regular desktop computer. We recommend that first time users to familiarize themselves with the code under these smaller simulation parameters, and leave them saved as the default in the alternative main program file "run_main_small.m" as detailed below.

Instructions:

- The example Figures I and II are drawn by calling

  ```
  >> Figures1and2
  ```

- The full quantitative model solution and simulation is reproduced by calling

  ```
  >> run_main
  ```

  this will reproduce the exact Figures and tables in the paper, but is slow and resource intensive as it simulates a large panel ($T = 10,000$ and $N = 5,000$).

  As noted above, we encourage first-time users to instead familiarize themselves with the code by calling for a smaller, yet in many ways sufficient, simulation size of $T = 1,500$ and $N = 250$. For convenience, we have also saved a separate main m-file that directly simulates this smaller panel – to do so call instead

  ```
  >> run_main_small
  ```

- The above code produces all relevant tables and Figures, except for Figure IV. To obtain that Figure call the following m-file

```
>> Figure4
```

  which draws the 3 example agents at the benchmark calibration, without simulating the whole ergodic distribution.