README to replicate "Combining Proxies and Narrative Sign Restrictions: Revisiting the Effects of Technology Shocks"

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The replication materials consist of six folders. In each folder and the sub folders, the `main.m` script generates the relevant results from the paper. The accompanying function folders include all necessary supporting functions required by the main scripts. The code has been tested using MATLAB 2024b. We will also maintain the replication files at the author's webpage: https://renzhang.weebly.com/research.html If you have any questions or require assistance, please feel free to contact the corresponding author at r_z79@txstate.edu.

The file **data.xlsx** contains all data used in our application section. The series for Total Factor Productivity (TFP), output, and hours are obtained from John Fernald's website: https://www.johnfernald.net/TFP. The data series for real per-capita GDP, consumption, investment, hours, and real stock prices are sourced from the following paper:

Chahrour, Ryan, Sanjay K. Chugh, and Tristan Potter. "Anticipated productivity and the labor market." *Quantitative Economics* 14, no. 3 (2023): 897–934.

In the following, we describe the purposes of the folders and subfolders.

1 Benchmark Results

Replication code for benchmark model of Section 4.

2 Robust Prior

Replication code for robust prior model (Appendix D.8)

3 Uniform Priors over Impulse Responses

Replication code for Inferences with Uniform Priors over Impulse Responses (Appendix D.9)

4 Robust Checks

(1) IV-Only and Narrative-Sign-Only Approaches

(2) Max-shareApproach (Appendix D.5)

(3) Alternative Number of Narrative Sign Restrictions (Appendix D.2)

(4) Zero-correlation restrictions (Appendix D.6)

(5) Combining IVs and Sign Concordance Approach (Appendix D.7)

(6) Including the Inflation Rate in the Model (Appendix D.10)

(7) Additional Correlation Restrictions (Appendix D.12)

5 Some Tests

(1) F test for the strength of the IVs

(2) Inference vs Identification robust prior (Appendix D.11)

6 Simulation

It generates all the Monte Carlo simulations presented in Section 3 of the main text and in Appendix C.