Replication files for "Sovereign Debt and Structural Reforms" by Andreas Müller, Kjetil Storesletten, and Fabrizio Zilibotti.

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MATLAB code for the replication of Figures 1, 2, 3 and B1

This folder contains:

1. The main MATLAB script "**main.m**":
   Running this script from the Matlab command window replicates Figures 1, 2, and 3 in the article and Figure B1 in the Online Appendix B by calling the following MATLAB scripts:
2. The subfolder "**Two assets with moral hazard**":
   a. Contains a folder "Planner" with a MATLAB script ("main.m") that solves for the planner allocation with moral hazard described in Section II.B: "Limited Enforcement with Moral Hazard" and replicates **Figure 1**.
   b. Contains a folder "Decentralization" with a MATLAB script ("main.m") that solves for the decentralization of the planner allocation in Definition 1 and replicates **Figures 2 and 3**. The value of this economy at zero debt serves as the outside option for the planner allocation.
3. The subfolder "**Two assets no moral hazard**":
   a. Contains a folder "Planner" with a MATLAB script ("main.m") that solves for the planner allocation without moral hazard described in Section II.B: "Limited Enforcement without Moral Hazard". The simulation in this script is used as an input to the top panels in **Figure 1**.
   b. Contains a folder "Decentralization" with a MATLAB script ("main.m") that solves for the decentralization of the planner allocation without moral hazard (not presented in the article). The value of this economy at zero debt serves as the outside option for the planner allocation.
4. The subfolder "**One asset with renegotiation**":
   Contains a MATLAB script ("main.m") which solves for the equilibrium of the decentralized economy with renegotiation described in Section IV: "Less Complete Markets". The policy functions computed in this script are used as an input to **Figures 3 and B1**.
5. The subfolder "**One asset no renegotiation**":
   Contains a MATLAB script ("main.m") which solves for the equilibrium of the decentralized economy described in Section IV.A: "No Renegotiation" and replicates **Figure B1**.

Technical notes:

- The code was created using MATLAB R2017a.
- The code **requires** MATLAB's built-in function fnxtr from the **Curve fitting toolbox**.
- Running the main script can take a few minutes, just follow the progress in the command window and wait until the figures pop up.
- You can also run the "main.m" scripts in the subfolders individually if you want to replicate a single figure or solve for the equilibrium of a single economy or planner allocation.
- The parameterization of the model is described in the Online Appendix B of the paper in Section B.4.