The Folder contains the code and results required to replicate the Figures and Tables of *“Evaluating Policy Counterfactuals: a VAR-Plus approach”*. All figures and tables in the paper can be produced by running the file *main\_modelcnfctls.m*. This main file calls other files to produce each of the figures and tables. The exact files that produce each figure are described below.

* **Figure 1:** *\invertibility\sw\_sequence\get\_2mom\_ninvwold\_all.m* and *\invertibility\sw\_sequence\get\_2mom\_fcstvars.m*
* **Figures 2, 3, 4*:*** *\model\_estim\plot\_model\_irfs.m*
* **Figures 5, D.1 and D.2*:*** *\applications\second\_moments\get\_cnfctl\_stats.m*
* **Figure 6:** *\applications\second\_moments\get\_cnfctl\_mbc.m*
* **Figures 7 and D.3:** *\applications\hist\_evol\get\_historical\_evol.m*
* **Figures 8 and D.4:** *\applications\hist\_scenario\get\_historical\_scenario.m,*
* **Figure 9:** *\applications\hist\_scenario\decompose\_realrates\_brank.m*
* **Table 4.1:** *\model\_estim\posterior\_model\_probs.m*
* **Table C.1:** *\var\_inputs\run\_var\_spf\_fcst\_compare.m*
* **Table C.2:** *\ var\_inputs \run\_var\_swfactors.m*
* **Table C.4:** *\model\_estim\get\_param\_post.m*

For Figures 2-9, D.1-D.4, and Tables 4.1 and C.4 the posterior draws in the folder /suff\_stats are required. These posterior draws are created by the file /model\_estim/sample\_posterior.m.

sample\_posterior.m requires the estimated monetary policy IRFs cointained in *IRFs\_ad\_results.mat* (which is created by /var\_inputs/ run\_var\_mp\_ad.m).

Figures 2,3, 4 and 9 require the posterior mode, which are stored in files *params\_hank\_ad.mat, params\_rank\_ad.mat,* *params\_hank\_ad\_behav.mat,* and *params\_rank\_ad\_behav.mat.* These posterior modes are generated by *\model\_estim\get\_posterior\_mode.m*

For Figure 5, we need the file *wold\_results.mat*, which is created by \var\_inputs\run\_var\_wold.m

For Figure D.1, we need the file *wold\_results\_early.mat*, which is created by \var\_inputs\run\_var\_wold\_early.m

For Figure 6, we need the file *mbc\_results.mat*, which is created by \var\_inputs\run\_var\_mbc.m

For Figure 7, we need the file *fcst\_evol\_results.mat*, which is created by \var\_inputs\ run\_var\_fcst\_evol.m

For Figure 8, we need the file *fcst\_scenario\_results.mat*, which is created by *\var\_inputs\ run\_var\_fcst\_scenario.m.*  
  
**Sufficient Statistics:** Folder *\suff\_stats* contains the posterior draws for each of the models, and also joint draws for: i) RANK models (both FIRE and behavioral), ii) HANK models (both FIRE and behavioral), iii) FIRE models (both RANK and HANK), iv) Behavioral models (both HANK and RANK), v) all four models. The corresponding paths are:

* FIRE RANK: */ratex/rank\_draws\_main.mat*
* FIRE HANK: */ratex/hank\_draws\_main.mat*
* Behavioral RANK: */behavioral /rank\_draws\_main\_behav.mat*
* Behavioral HANK: */behavioral /hank\_draws\_main\_behav.mat*
* FIRE joint RANK and HANK: */mix/non\_behav\_models\_draws.mat*
* Behavioral joint RANK and HANK: */ mix /behav\_all\_models\_draws.mat*
* Joint FIRE and Behvioral RANK: */mix/rank\_behav\_and\_non\_behav\_draws.mat*
* Joint FIRE and Behvioral HANK: */mi /hank\_behav\_and\_non\_behav\_draws.mat*
* Joint – all models: */mix/all\_models\_draws.mat*

**Requirements:** the replication package is tested in a Dell Inspiron 15 3000, with an Intel(R) Core(TM) i7-1065G7 CPU @ 1.30GHz processor and 12GB of RAM, running on Windows 11.

All programs are tested in Matlab2022b. The following toolboxes are required:  Econometrics toolbox; Optimization toolbox; and Statistics toolbox. Furthermore, Dynare is also required, the code is tested in Dynare 6.1.

**Running Time:** *main\_modelcnfctls.m* takes around 20 minutes to run. Among the files that create inputs for the figures, the main bottleneck is to obtain a sample from the posterior. This is done by /model\_estim/sample\_posterior.m and takes several hours to run for each model.

**Acknowledgements:**

* Function *regcyc.m* is taken from Hamilton, James D. (2018), "Why You Should Never Use the Hodrick-Prescott Filter", Review of Economics and Statistics
* Function *winsorize.m* is taken from Cardillo G. (2011). WINSORISING: WINSORISING Data, <http://www.mathworks.com/matlabcentral/fileexchange/32327>

All other functions are written by the authors.