

The International Transmission of financial shocks (JMCB 2015)
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Guide to replication files

First of all, install and add to your directory the Matlab Econometrics Toolbox by James P. LeSage provided at <http://www.spatial-econometrics.com/>

Then, create two folders, call them Results and Results_IRs, and add them to your directory.

To estimate the TV-FAVAR

1. *AELM_prepareData.m* to prepare the dataset (loading the data, data transformation, etc.)
2. *AELM_EstTVFavar_CI.m* to estimate the TV-FAVAR (if you want to reproduce results for GDP only, uncomment line 327, this will speed up the estimation!)
3. *AELM_GenerateIRFs.m* to produce point IRFs
4. *AELM_GenerateFEVD.m* to produce FEVD of GDP (but adaptable to any other variable)
5. *AELM_PLOTS.m* to reproduce Figures 1,2,3,6, and 7 in the paper

To replicate figure 8 you need to change the *opt_fci* variable, so that instead of loading the baseline FCI, the program loads one of the other measures reported in *dataint_2015*.

Note that if you use the FSI by Hubrich and Tetlow (2012) the estimation will start in 1975.

A useful table is *variable_pos* produced in step 1 – it tells you the progressive number by variable category (columns) and by country (rows). A Nan entry means that that variable category for that country is not available

To replicate figures 4 and 5 in the paper - Run *AELM_PLOT_CI_GDP.m*

This function computes the IRFs of GDP over time, with confidence intervals. It produces figures 4 and 5 and a table with impact and one-year ahead IRFs over selected periods (first block of table 2).

Note that it takes a couple of hours to run!

To replicate tables 2 to 4 in the paper - Run *AELM_IRFCIfull.m*

This function computes the IRFs over time, with confidence intervals, for all variables displayed in the paper. You should let this code run over night. To reduce computational time you can decrease the number of variables.

It produces a big table where, for each variable, there are 2 blocks

- The first block reports average IRFs over selected periods and over horizons (impact and 1 year ahead)
The size of this block is 9 (# of countries) times 5*2 (# of periods x horizons)
- The second block reports in position (i,j) 1 if the average IRF in position (i-9,j) is significant