
Readme for replication of

„Identifying Indicators of Systemic Risk“

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Constructing the variables:

1. Restricted data can be downloaded from the respective data providers using the identifiers provided in **“data_sources.xlsx”**.
2. Publicly available time series are in the folder **“PublicData”**.
3. The financial disruption dummies are saved in **“data.mat”** and **“data_semia.mat”** in the folder **“MatlabCode”**.
4. Where necessary, the time series can be backcasted using the procedure described in **“data_sources.xlsx”** and in Online Appendix D.
5. The construction of the candidate indicators is also described in Online Appendix D.
6. The final sample periods of all indicators are given in Table 3 in Appendix B.

Replicating the results using the Matlab code:

1. Save all indicators in Matlab using the same format as for the financial disruption dummies. Alternatively, you may fill the empty Excel file **“data.xlsx”** with your own data and then run **“Create_XLS2mat.m”** in order to load the candidate indicators into Matlab in the correct format.
2. Use the variable names given in **“Estimation_ML2step_benchmark.m”**, lines 32-40. For instance, the Basel III credit-to-GDP gap should be saved to “tab” as **“tab.cqgap”**, ranging from 1950Q1 to 2019Q4. The quarterly growth rates of GDP should be saved to **“tab.d1IRGDP”**, again using the same format as for the financial disruption dummies.
3. Open and run **“main.m”**. This Matlab file delivers all figures and tables presented in our paper and in the online appendix for all candidate variables. It executes the following Matlab scripts:
 - a. **“Estimation_ML2step_benchmark.m”** runs the benchmark estimation (i.e. the two-stage hypothesis test).
 - b. **“Figure_results2heatmap_benchmark.m”** produces the heatmaps and also the Global Financial Crisis case study (Figure 4).
 - c. **“Table_results2xls_mainresult_benchmark.m”** produces the results that we use to construct Table 1 (“Regression results for Basel III credit-to-GDP gap six quarters ahead”) in the paper.
 - d. **“Table_results2xls_robustness_benchmark.m”** produces the results that we use to construct Table 2 (“Impact of standard error correction”) in the paper.
 - e. **“Estimation_ML2step_benchmark_subsample.m”**, **“Estimation_ML2step_RomerRomer.m”**, and **“Estimation_ML2step_ESRB.m”** run the robustness checks, i.e. the subsample analysis, the estimation with Romer/Romer dummies, and the estimation with the ESRB dummies, respectively.
 - f. **“Figure_results2heatmap_benchmark_subsample.m”**, **“Figure_results2heatmap_RomerRomer.m”**, and **“Figure_results2heatmap_ESRB.m”** produce the corresponding heatmaps for these robustness checks.