

This folder contains the replication files for **Vulnerable Growth: Comment** by Lluc Puig-Codina.

The scripts contained in this folder were tested on:

- R version 3.6.3 (2020-02-29)
- Platform: x86_64-w64-mingw32/x64 (64-bit)
- Running under: Windows 7 x64 (build 7601) Service Pack 1

The R library dependencies are listed at the top of each .R file.

Contact information

- Lluc Puig-Codina: llucpuigcodina@gmail.com

Folder structure

```
.
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|   +-- centered_predictive_distribution.R
|   +-- distribution_fitting.R
|   +-- out_of_sample.R
|   +-- RStest.R
|   +-- risk_measures.R
|   +-- quantile_regression_ci.R
|
+-- data
|   +-- DataVulnerability.xls
|
+-- storage
```

```

|   +-- parameters_in_sample.csv
|   +-- parametersA_in_sample.csv
|   +-- alternative_parameters_in_sample.csv
|   +-- alternative_parametersA_in_sample.csv
|   +-- parameters_out_of_sample.csv
|   +-- parameters_out_of_sampleA.csv
|   +-- parameters_out_of_sample_only_GDP.csv
|   +-- parameters_out_of_sampleA_only_GDP.csv
|   +-- RStestresults.csv
|   +-- one_quarter_NFCI_CI_MMB.csv
|   +-- one_quarter_realGDPgrowth_CI_MMB.csv
|   +-- one_year_NFCI_CI_MMB.csv
|   +-- one_year_realGDPgrowthA_CI_MMB.csv
|
+-- figures
    +-- figure1.pdf
    +-- figure2.pdf
    +-- figure3.pdf
    +-- figure4.pdf

```

Description of the data

All data used is contained in ./data/DataVulnerability.xls. References to the data sources are included in the file. The file is the same one found in the replication codes of Vulnerable Growth: <https://www.aeaweb.org/doi/10.1257/aer.20161923.data>

Description of the codes

- quantile_regression.R: Reproduces the quantile regression parameter estimates in section I. Output is printed in the console.

- `centered_predictive_distribution.R`: Reproduces Figure 1. Output is saved in `./figures/figure1.pdf`.
- `distribution_fitting.R`: Reproduces Figure 2 and 3. Output is saved in `./figures/figure2.pdf` and `./figures/figure3.pdf`.
- `RStest.R`: Implements the test of [Rossi and Sekhposyan \(2019\)](#).
- `out_of_sample.R`: Reproduces Table 1. Output is saved in `./storage/RStestresults.csv`.
- `risk_measures.R`: Reproduces Figure 4.
- `quantile_regression_ci`: Computes the confidence intervals of the multivariate quantile regressions using moving blocks bootstrap. Output is saved in `./storage/..._CI_MMB.csv`.

Description of storage

In storage several outputs and transformations of the data are saved in case the user of this codes does not wish to recompute all results, which can take a while. In code files `distribution_fitting.R` and `out_of_sample.R` one can find `use_stored_results = TRUE`. Set the previous variable to `FALSE` to recompute all results, which can take quite some time.