

Replication files for N. Borri and G. Ragusa "Sensitivity, Moment Conditions, and the Risk-free Rate in Yogo (2006)"

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The codes contained in this folder replicate all the results in N. Borri and G. Ragusa, "Sensitivity, Moment Conditions, and the Risk-free Rate in Yogo (2006)." In particular:

- `MakeFigure_forCRF.m` replicates figure 1 in the paper. The code imports: 1) data we obtained from Yogo's [website](#) and saved in as `.mat` files; 2) the non-linear estimates from Yogo (2006)'s table 2 (`tables_yogo.xlsx`).
- The scripts `R/yogo_replication.R` (written in R) replicates the results of the non-linear estimates from Table 1 in our paper. This code uses data from Yogo's [website](#) stored in the subfolder `data`. Note that for the routines to work you need to have installed the following packages (the numbers indicate the version of the package used to obtain the results).

```
pacman    '0.4.1'
rgenoud    '5.7.12.4'
MASS       '7.3.45'
texreg     '1.36.7'
```

The script tries to automatically install these packages if they are not available and a network connection is available.

The results obtained in the paper are obtained using the following architecture and R version:

```
> R.version

platform      x86_64-pc-linux-gnu
arch          x86_64
os            linux-gnu
system        x86_64, linux-gnu
status        Revised
major         3
minor         2.4
```

```

year          2016
month         03
day           16
svn rev       70336
language      R
version.string R version 3.2.4 Revised (2016-03-16 r70336)
nickname      Very Secure Dishes

```

Notice that the Genetic algorithm uses a random strategy to locate the global optimum of the GMM objective function. As such, replicability of the results hinges on using the same random seed that we used. The random seed can be changed in the `yogo_replication.R` by providing a different value to `set.seed`. The seed used in the paper is 1234567.

The output of `yogo_replication.R` are four files

1. `firststage.tex`: contains the L^AT_EXcode of Table 1 of the paper relative to the first stage GMM estimation;
2. `firststage.txt`: as above, but in `txt` format;
3. `secondstage.tex`: contains the L^AT_EXcode of Table 1 of the paper relative to the second stage GMM estimation;
4. `secondstage.txt`: as above, but in `txt` format.

To replicate the results in our paper the following steps need to be followed:

- Extract the content of `replication_cfr.tar.gz` into a folder. For instance, the following command will extract the `replication_cfr.tar.gz` into `~/replication_cfr`, where `~/` is the home directory of the current user

```
tar -xzf replication_cfr.tar.gz ~/
```

- Start the script `yogo_replication.R` from `~/replication_cfr`

R

and from the R prompt

```
source("yogo_replication.R")
```