Author: **Vladimir Yankov**

Description: The folder contains codes for replicating the analysis in ``In Search of a Risk-Free Asset'' forthcoming at the JMCB.

Please email the author <vladimir.yankov@gmail.com> for questions, requests, or comments regarding these codes.

The analysis in the paper relies on the following datasets some of which are proprietary and others publicly available:

* The proprietary RateWatch micropanel of deposit rates for small retail CDs (<https://www.spglobal.com/marketintelligence/en/campaigns/ratewatch> )
* The proprietary iMoneyNet micropanel data on money fund shares and fees (<https://www.mfanalyzer.com/BOE/BI> )
* The SCF data (<https://www.federalreserve.gov/econres/scfindex.htm>)
* The Summary of deposit (SOD) data available on the FDIC website (<https://www7.fdic.gov/sod/dynaDownload.asp?barItem=6> )
* Call Reports (<https://www.chicagofed.org/banking/financial-institution-reports/commercial-bank-data>)
* Consolidated data at the bank holding company level FR Y-9C (<https://www.chicagofed.org/banking/financial-institution-reports/bhc-data> ),
* Interest rate data on Treasury yields and LIBOR available on Federal Reserve Bank of St. Louis FRED website (<https://fred.stlouisfed.org/>).

The code for the data cleaning and construction of the proprietary data is not included in this replication, but codes are available upon request. The replication code contained here is organized in the following subfolders.

[1] **search\_cost\_estimation**

* *SearchCostEstimatuon\_by\_msa\_final.m* is the main code for the structural estimation of the search costs.
* *Parse\_results\_str\_est.R*: is the code used to parse the results from the Matlab code and construct a panel dataset used for the plotting and the regression analysis. The files are R .rda data files:
  + qvec\_est\_msa.rda: Estimates of search intensities in MSA area x time panel dataset.
  + F\_xi\_msa\_m.rda: Contains estimates of the critical points (deltas) of the search cost distribution organized in MSA area x time panel dataset.
  + F\_xi.rda: contains estimates of the moments of the search cost distribution organized in MSA area x time panel dataset.
  + Note that the data folder contains an annual version of the F\_xi files.
  + The folder ‘**functions’** contains additional functions needed for the construction of the log-likelihood.
* Analysis\_structural\_estimates.R this code does additional data constructions and analysis of the search cost estimates. Some of this analysis is shown in the online appendix such as the goodness-of-fit measures based on the Kolmogorov-Smirnov test for the closeness of the model implied rate distribution and the empirically observed rate distribution.

[3] **regression\_analysis**

* *SummaryStatistics\_Section2.R* constructs the decomposition of total variation in deposit rates and the dispersion in deposit rates across and within markets in Tables 1 and 2 respectively. Contains additional analysis some of which presented in the online appendix.
* *Test\_product\_differentiation\_mixed\_strategies.R* conducts the analysis in sections 2.3, 2.4, and 2.5
* *Construct\_SCF\_Extract\_DepositAccounts\_FinSoph.R* constructs the financial sophistication index and measures of deposit allocations across multiple bank accounts.
* *Analysis\_SCF.R* implements the descriptive and regression analysis on the SCF data summarized in section 2.7.
* *iMN\_analysis.R* implements the analysis on iMoneyNet data summarized in section 5.2.
* Reg\_estimation\_ies.R contains the code to replicate the analysis in section 4.1, the estimation of the coefficient of IES. The folder data contains the dataset to replicate regression results in table 10.
* MSA\_level\_regressions.search\_costs.R contains the code that produces Table 11 Search cost distribution and market characteristics and Table 12 Search intensity and market characteristics.

[4] **counterfactuals**

* *Analysis\_counterfactuals.R* conducts the analysis presented in section 5.

[5] **data**: this folder contains the resulting data from the search cost estimation. Note that per the data license agreement with RateWatch and iMoneyNet, the author cannot share micro-level deposit rate or money fund data. Please contact RateWatch and iMoneyNet for obtaining access to their proprietary data. See the *README.txt* file in the folder for further details.