

Replication Materials for Sattler, Brandt and Freeman “Democratic Accountability in Open Economies” *Quarterly Journal of Political Science*

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This document outlines the replication materials for our paper. The replication archive contains two folders:

main are the files and data for replicating the main analysis presented in the paper.

sensitivity are the files and data for replicating the sensitivity analyses reported in the appendix of the paper. This folder contains a series of subfolders with a code structure that parallels that found in the **main** folder (and described below).

The code used was written using **R** the GNU open source version of **S** (<http://cran.r-project.org>) and the **MSBVAR** package for Bayesian VAR modeling (also available on CRAN or from <http://yule.utdallas.edu>). The assumption in running the code is that you have a) **R** installed and a version of of the **MSBVAR** and related dependency packages installed (you can do this from the **R** command prompt using the `install.packages('MSBVAR')`.)

The **main** folder contains the raw data, **R** data files, and the **R** scripts for running the models. For each of the four models presented in the article there is a separate **R** script as well as some setup and post-analysis scripts that make thee final figures for the paper.

The final naming convention for the **R** scripts can be mapped to the models in the paper using the following table:

Model name in article	Model name in code	File
Policy Linkage	Accountability model	Model 2
Monetary Linkage	Monetary accountability model	Model 1
Fiscal Linnkage	Fiscal accountability model	Model 4
No Linkage	No Fiscal or Monetary accountability model	Model 3

Table 1: Model names and files

The files for the data, models, and figures in the **main** folder are

UK20070103.csv CSV file of the raw data used in the analysis

setupSFB2.R R script to setup the data, priors, the A_0 structural matrices, and other constants used across the models. These are then saved in the **SFB2_models_data.RData** R data file.

Model*_97.R Runs the model specified in the above table for the sample from 1984–1997 (Tory period).

Model*_06.R Runs the model specified in the above table for the sample from 1997–2006 (Labour period).

IRFsubsetsSFB2.R R script to generate the posterior impulse responses in Figure 1-4 of the paper. These load in the posterior simulations generated by the **Model*.R** files and then extract the relevant impulse responses for plotting. Plots with both 68% and 90% posterior coverages are produced (the former are displayed in the paper).

Electioncoefs2.R Posterior simulation of the reduced form intercepts to show the differences in the drift of the time series across the two sample periods. These were included in an earlier version of the article, but not the final published version.

SpecificationlogMDD.R R script to compute the log marginal data densities reported in Table 1 of the article. These are used to compute the Bayes factors for the model comparisons.

SFB2-sfevs.R R script to compute and print the decomposition of the forecast error variances for the B-SVAR models.

SFB2-A0.R R script to check the sign normalization of the B-SVAR models.

There are several other R help scripts included in this folder. These may or may not be sourced into the above R scripts at runtime.

There are also files with ***.Rout** extensions that match these R scripts. These have the output of the batch process runs for these files. The batch process of all of the R code can be run using the **SFB2batch.sh** shell script.

The **sensitivity** folder contains an additional four folders. These folders contain the R scripts for the following additional analyses discussed in the appendix:

closedecon Models excluding the US macroeconomic equations; these are a closed UK economy model and it differs as you would expect when you remove the trade and global effects.

netcash12 Models like in **main**, but with 12 instead of 6 lagged values of the variables.

noexpect Models excluding the personal and national economic expectations equations. This allows us to make sure we do not have any un-modelled expectational effects.

realdebt Models using an alternative fiscal policy measure. The main analysis uses the Exchequer's net cash position to measure the deficit. The analysis in this folder estimates the same models as in **main**, but with a real UK debt measure instead.

Each of these four folders of sensitivity analyses has a set of files and R scripts that are named similarly to those in the **main** folder. Please see the above discussion for the names of the R scripts and what they do, recognizing that these have been then modified for the subsequent sensitivity analysis. The names of the output (tables, graphs, etc.) differ in these sensitivity analyses, but the names of the output files are documented in the R scripts, so please consult them for details.

Care should be taken when running these files. Because the analysis uses Markov-chain Monte Carlo methods to estimate the posterior of these models there is a large amount of output. The files above (were you to run them all) would generate about 15 gigabytes of output and takes several days to run.