Description

This document describes the files contained in the "Supplementary_Material" folder that supplements the paper "Product Life Cycle, Learning and Nominal Shocks". The folder contains three sub-folders. The folder "EMPIRICAL" contains Stata do files for processing the data and producing the figures and tables presented in the publication. All files use the IRI Symphony data set to produce the analysis, figures and tables. The folder "FIGURES" contains the output from these commands that are included in the publication. The folder "MODEL" contains the Matlab codes used to solve the model. Additional notes are included as part of the codes described above.

- The code LEARNING.m reproduces the main results of the paper. This code calls SIMULATION.m and IRF.m to conduct the simulation of the model. To compare the results of the model with those of the data, LEARNING.m must be run first and then STEP 1 - Model.do. After running LEARNING.m, FIGURE_9.m can be run to obtain the IRF depicted in Figure 9 of the paper.
- The subfolder FULL contains the codes to run the model with full information. The code FULL.m reproduces the main results in Section 4.1.
- The folder CC contains the codes to run the model with costumer capital. The code CC.m reproduces the main results in Section 7.
- The folder SENSITIVITY contains the codes to run the sensitivity analysis in the Appendix of the paper. The code RunAllFiles.m reproduces the main results in Appendix B.2.
- State (code was last run with version 16). Commands required are reghdfe, gtools, estout. All Stata packages can be installed using "ssc install."
- Matlab (code was run with Matlab Release 2020a). The .m files GaussHermite.m, included in this package, is required to run the codes. No other toolboxes are required.

Data Availability

IRI worldwide provides a consumer packaged goods data set. The data is proprietary and the authors had agreed not to disclose any of the IRI Data. In particular, any category level, brand level, market or regional level, and/or retailer or store level data or any information that allows the the evaluation of the strategies used by particular manufacturers or retailers. The data can be purchased at a cost. More information about the data can be found at:

https://www.iriworldwide.com/en-us/solutions/academic-data-set

Presentations, papers, and publications must include the following citation: “All estimates and analyses in this paper based on Information Resources Inc. data are by the author and not by Information Resources Inc.”

Data Citations

Bronnenberg, Bart J., Michael W. Kruger, Carl F. Mela. 2008. Database paper: The IRI marketing data set. Marketing Science, 27(4) 745-748.