Repl1cation files for

Monetary Policy, Markup Dispersion, and Aggregate TFP

Matthias Meier Timo Reinelt

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Overview

The replication package includes the folders `empirics` and `model` and replicates all tables and figures in the manuscript (including in the Online Appendix).

The code has been tested on a MacBook Air M1 2020 and a Windows AMD Ryzen 7 PRO 5850U, using Matlab R2021b and Stata/SE 17. Additional Stata packages required are `gtools`, `reghdfe`, `ivreg2`, `ivreghdfe`, and `freduse`. Matlab packages required are Dynare 5.5, the Miranda/Fackler CE toolbox (provided), the Meyer-Gohde (2014) toolbox (provided), and the Temporal disaggregation toolbox by Enrique M. Quilis.

Empirics

Data. The empirical analysis uses various data as listed in the Table below. These data files should be stored in the folder `empirics/A_inputs`. The files were obtained as indicated in the column "Source".

File	Reference	Source
`compustat_quarterly.dta` [2,3]		WRDS/Compustat
`compsegd_wrds_segmerged_ALL.csv` [2,4]		WRDS/Compustat
`DLE_markups_fig.txt`	De Loecker et al. (2020)	Jan De Loecker[1]
`ebp_csv.csv`	Gilchrist/Zakrasjek (2012)	Federal Reserve Board[1]
`firmOut_Markups_IndERP.dta` [2]	Baqaee/Fahri (2020)	OUP[1]
`FrequencyNaics2dnew.csv` [2]	Pasten et al. (2020)	Michael Weber
`FrequencyNaics3dnew.csv` [2]		
`FrequencyNaics4dnew.csv` [2]		
`FrequencyNaics5dnew.csv` [2]		
`gdpplus.xlsx`	Arouba et al. (2013)	Philadelphia Fed[1]
`hfi_mpshocks_final_quarterly.dta`	Meier/Reinelt (2022)	
`hfi_mpshocks_final_monthly.dta`		
`quarterly_tfp.xlsx`	Fernald (2014)	San Francisco Fed[1]
`us_total_hrs_emp.xlsx`	BLS	BLS[1]

Note: [1] See end of document for URLs. [2] Data not supplied. [3] The quarterly Compustat balance sheet data can be obtained via WRDS under "Compustat - Capital IQ / Compustat North America / Fundamentals Quarterly". Choose "data date" as the date variable, `gvkey` as company code, and "search entire database". Select the screening variables as in the default but both `INDL` and `FS` industry formats and choose the following variables: `gvkey`, `datadate`, `sic`, `fic`, `saleq`, `cogsq`, `xsgaq`, `ppentq`, `ppegtq`, `indfmt`, `naics`, `atq`, `invfgq`, `invtq`,

dlcq, dlttq, cheq, oibdpq, oiadpq, dpq, xrdq, rdipq, txtq, intanq. [4] The Compustat segment files can be obtained via WRDS under "Compustat - Capital IQ / Compustat North America / Segments (Non-Historical)" using the same download criteria.

Code structure. The codes in empirics should be run sequentially in the order based on the subfolder and file names. The file RUN.do is the primary file that calls all code producing all empirical figures and tables. The codes in the subfolder 01_prepare_macro_data prepare macro time series data and can be run with the supplied input files. The codes in the folder 02_prepare_micromacro_data require Compustat data and price rigidity data.

Note: The replication package contains the file B_temp/tsdata_macromicro.csv, which contains the aggregated markup dispersion series computed from Compustat data. This allows replicating the time series local projections without access to Compustat (in folder 04_local_projections).

The remaining files produce the results in the figures and tables as shown in the Table below.

File	Figure/Table
03_descriptives/summary_stats_compustat.do	Table A.1
03_descriptives/summary_stats_compustat.do	Table A.2
03_descriptives/tsplots_appendix.m	Figure A.1(a)-(d)
03_descriptives/tsplots_main.m	Figure 1
04_local_projections/local_projections_main.m	Figure 2(a)-(d)
	Figure 3(a)-(b)
04_local_projections/local_projections_appendix.m	Figure B.1
	Figure B.2(a)-(d)
	Figure C.1(a)-(f)
	Figure C.2(a)-(f)
	Figure C.3(a)-(f)
	Figure C.4(a)-(f)
	Figure C.5
	Figure C.6(a)-(d)
	Figure C.7(a)-(e)
	Figure C.7(f)
	Figure C.8(a)-(c)
	Figure C.9(a)-(b)
	Figure C.11(a)-(d)
	Figure C.12(a)-(b)
05_panel_local_projections/estimate_panel_lp.do	Figure 4(a)-(d)
and 05_panel_local_projections/panel_lp_figures.m	Figure C.9(c)-(d)
	Figure D.1(a)-(f)
	Figure D.2(a)-(f)
	Figure D.3(a)-(b)
06_firm_regressions/stickiness_markups.do	Table 1(a)-(b)
	Table D.1(a)-(b)
	Table D.2(a)-(b)
	Table D.3(a)-(c)
06_svar/main_proxysvar.m	Figure C.10(a)-(f)

Model

The model results are produced in the folder `model`. The Dynare mod-files for the various models are provided in the subfolder `models` and the Meyer-Gohde toolbox is provided in the subfolder `functions/dynare_add_on_2017`. To solve the menu cost model, we use the Terry/Knotek (2011) Tauchen discretization toolbox provided in the subfolder `functions/discretization` and the Miranda/Fackler toolbox provided in the subfolder `functions/CEtools`. The master file `RUN.m` first generates all results which are then plotted at the end of the file. In particular, the various sections of the file generate results for the Figures as detailed in the Table below. Section 2.1 then combines all model solution output and Section 2.2 creates all figures.

`RUN.m` Section	Model	Results for Figure
Section 1.1	Baseline model	Figure 5(a)-(f) Figure 6(b) Figure H.1 Figure H.3(a)-(f)
Section 1.2	Model with counterfactual Taylor rule	Figure 6(a) Figure H.2(a)-(f)
Section 1.3	Model with higher elasticity of substitution	Figure 6(c) Figure H.4(a)-(f)
Section 1.4	Model with trend inflation	Figure I.3(a)-(f)
Section 1.5	Model with deterministic steady state	Figure H.5(i)(a)-(c)
Section 1.6	Model with deterministic steady state and homogeneous price rigidity	Figure H.5(ii)(a)-(c)
Section 1.7	Model with firm-specific labor	Figure I.1(a)-(f)
Section 1.8	Model with Rotemberg adjustment friction	Figure I.2(a)-(f)
Section 1.9	Menu cost model	Figure F.1(a)-(b)

URLs to data sources

(The links are ordered according to their appearance in the Table on page 1.)

https://sites.google.com/site/deloeckerjan/data-and-code
https://www.federalreserve.gov/econres/notes/feds-notes/updating-the-recession-risk-and-the-excess-bond-premium-20161006.htm
https://academic.oup.com/qje/article-abstract/135/1/105/5573281?redirectedFrom=fulltext
https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/gdpplus
https://www.frbsf.org/economic-research/indicators-data/total-factor-productivity-tfp/
https://www.bls.gov/productivity/home.htm

References

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Baqaee, David Rezza and Farhi, Emmanuel. Productivity and misallocation in general equilibrium. The Quarterly Journal of Economics, 135(1):105–163, 2020.

De Loecker, Jan, Eeckhout, Jan, and Unger, Gabriel. The rise of market power and the macroeconomic implications. The Quarterly Journal of Economics, 135(2):561–644, 2020.

Fernald, John. A quarterly, utilization-adjusted series on total factor productivity. Federal Reserve Bank of San Francisco Working Paper Series, 2014.

Gilchrist, Simon and Zakrajsek, Egon. Credit spreads and business cycle fluctuations. The American Economic Review, 102(4):1692–1720, 2012.

Meyer-Gohde, Alexander. Risky linear approximations. mimeo, 2014.

Miranda, Mario, and Paul Fackler. Applied Computational Economics and Finance. MIT Press, 2002.

Pasten, Ernesto, Schoenle, Raphael, and Weber, Michael. The propagation of monetary policy shocks in a heterogeneous production economy. Journal of Monetary Economics, 116(C):1–22, 2020.

Terry, Stephen J., and Edward S. Knotek II. Markov-chain approximations of vector autoregressions: Application of general multivariate-normal integration techniques. Economics Letters 110, no. 1 (2011): 4-6.