

Replication files for “Monetary Policy and Inequality

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Overview

The code and data in this replication package conduct the analysis reported in the paper “Monetary Policy and Inequality” by Alisdair McKay and Christian Wolf. Code is written in Stata and Matlab.

Scope of replication file and data availability

This replication describes the construction of Figures 1-3 of the paper as well as column 2 of Table 1. This replication file does not generate Figure 4 of the paper, which reports results from McKay & Wolf (2022). In addition, Figure 2 shows the time series of the effective interest rate on outstanding mortgages. We obtained that series from the authors of Berger et al. (2021) and we do not include it here. The remaining data is included in this replication file and may also be accessed from the sources detailed below.

Data

- Survey of Consumer Finances 2019 (Federal Reserve Board, 2019). These data can be obtained from the Federal Reserve website. We use the Stata version of the summary extract, which is available from <https://www.federalreserve.gov/econres/files/scfp2019s.zip>. We have provided a data file that contains the variables we actually use (`Data/SCF_2019.dta`), but you can also run the programs on the raw data from the Federal Reserve.
- Panel Study of Income Dynamics 2019 (Institute for Social Research, 2019). These data can be obtained from the Institute for Social Research <https://psidonline.isr.umich.edu/>. We have provided the data files with the data extract we used (`Data/PSID_RAW/J309479.txt`).
- Monetary policy shocks from Gertler-Karadi (2015) (see variable `gk_var_2` in `Data/DataSet.xlsx`).
- Time series data from the Federal Reserve Bank of St Louis FRED database. See `Data/DataSet.xlsx`.
 - Real GDP (GDPC1)
 - GDP deflator (GDPDEF)
 - 3-month T-bill rate (DTB3)
 - Population (POP)
 - Personal income (PINCOME)
 - Compensation of employees (COE)
 - Proprietor’s income (PROPINC)
 - Rental income (RENTIN)
 - Interest income (A064RC1Q027SBEA)
 - Dividend income (B703RC1Q027SBEA)
 - Households real estate at market value (HNOREMV)
 - Auto loan rate (TERMCBAUTO48NS)
 - 30-year fixed mortgage rate (MORTGAGE30US)
 - Personal consumption expenditures, services (PCESV)

- Personal consumption expenditures, non-durable goods (PCEND)
- The time series of the S&P 500 composite index was obtained from Bloomberg.
- The monthly time series of average outstanding mortgage rates was obtained from the authors of Berger et al. (2021). We do not distribute this series.

Replication steps

1. In Matlab, run `VAR.m`
 - Column 2 of Table 1 will be printed to the screen.
 - The 0.7% consumption response to monetary policy stimulus mentioned in the appendix is also printed to the screen.
2. In Stata, run `ConsumptionResponses.do`
 - You will need to edit the working directory path at the top of this file.
 - The file imputes consumption using estimates from the PSID. The coefficients in this imputation are obtained from `PSIDConsumption.do`
3. To make figures in Matlab, run `Plot_Figs_123.m`
 - Results are stored in the `Plots` directory.
4. In the text, we mention various statistics such as “Among households in the lowest income quintile, 34 per cent had zero labor income during 2018” and “among the low-income group is that a substantial part (32% on average) of the income in this group is derived from social insurance and other transfers.” These statistics are computed by `SCF_Small_Calculations.do`
 - You will need to edit the working directory path at the top of this file.

References

- Berger, D., Milbradt, K., Tourre, F., & Vavra, J. (2021). Mortgage prepayment and path-dependent effects of monetary policy. *American Economic Review*, 111(9), 2829–78.
- Federal Reserve Board (2019). Survey of consumer finances. Accessed October 20, 2021.
- Institute for Social Research (2019). Panel study of income dynamics. Accessed July 28, 2022.
- McKay, A. & Wolf, C. K. (2022). Optimal policy rules in hank. MIT Working Paper.