READ ME FILE

Title: Shifts in Australian Price-setting Behaviour around Large Shocks

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Description

This ‘read me’ file details the replication files for RBA Research Discussion Paper 2026-02. Firm- and item-level price data from the research discussion paper cannot be provided as they are confidential unit record data held in the ABS Business Longitudinal Analysis Data Environment (BLADE). All data used to plot graphs appearing in the RDP are available to the public and can be found in the spreadsheet ‘rdp-2026-02-graph-data’.

If you make use of any of the files contained in the replication package, you should clearly attribute the authors of this RDP in your work.

Analysis of prices microdata

The ‘prices_analysis’ folder contains Stata do files that are used to produce the results presented in Sections 3 and 4 of the paper and the appendices. The Stata code files were run on StataMP 18 (64 bit).

The following Stata do files are included; note that these can only be run if the user has access to the ABS web-scraped prices dataset in the BLADE environment:

1. rdp01_initialisation.do: link firm-level web-scraped prices data to BLADE identifiers; import CPI weights.
2. rdp02a_process_prices.do: process raw daily price observations for each firm; impute sales, calculate log price changes and price duration.
3. rdp02b_append_prices.do: append processed prices files across firms into daily and monthly master files.
4. rdp03_histograms_kernel.do: generate kernel density estimates for different daily price changes series; on an aggregated basis and year-by-year.
5. rdp04_relative_frequency.do: calculate relative frequency of price increases and decreases over time using simple ratio and mean percentage methods.
6. rdp05_price_duration.do: calculate mean and percentiles spell duration statistics on a monthly basis.
7. rdp06_survival_analysis.do: estimate likelihood of price survival using survival analysis and run various robustness tests.
8. rdp07_ridgeplot_graphs_b1_b2.do: makes Figures B1 and B2 using data from kernel density estimates.

DSGE analysis

The analysis in Sections 5 and 6 of the paper use the DSGE model developed in RBA RDP 2018-04 by Gibbs, Hambur and Nodari. Replication files for these exercises can be found in the ‘DSGE_exercises’ folder – the .xlsx files contain the calculations for Calvo parameter changes used in the DSGE model. Matlab code files were run on Matlab 2024a and Dynare 6.1.

The code files for the DSGE analysis include:

1. GibbsHamburNodari - calvo change – irfs: code file and material to create Figures 7, 9 and D1.
    a. Code file: IRF estimation.m
    b. Output file: IRF comparison.xlsx, which pulls from Scenario_results_v1_*.xlsx files
2. GibbsHamburNodari - calvo change - Decomp - new data: code file to create Figures 8 and E1.
    a. Code file: Forc_scen_chnge_calvo.m
    b. Output files for Figure 8: EA_Forecast_Scenario_v1_*.xlsx (baseline sheet)

c. Output files for Figure E1: HDecompNewv1_*.xlsx (baseline sheet)

3. GibbsHamburNodari - calvo change - optimal - new data: code files to create Figure 10 and for Section 6.3.
   a. Code file for Figure 10: opt_policy_paths.m
   b. Output file for Figure 10: OPtimal.xlsx (graphit_r sheet)
   c. Code file for Section 6.3: opt_weights.m
   d. Output file for Section 6.3: Optimal_w.xlsx (graphit sheet)

Reference

Gibbs CG, J Hambur and G Nodari (2018), 'DSGE Reno: Adding a Housing Block to a Small Open Economy Model', RBA Research Discussion Paper No 2018-04.

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