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October 20, 2020

Abstract

Data and replication instructions for *Learning from House Prices: Amplification and Business Fluctuations*, published in the Review of Economic Studies.

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Data availability and Provenance:

1. Data on output, personal consumption, hours, residential investment, the GDP deflator, and the residential investment price deflator were dowloaded from the FRED database maintained by the Federal Reserve Bank of St. Louis available at https://fred.stlouisfed.org. A copy of the data is provided as part of this archive.

2. For real house prices, we use the index of Shiller (downloaded from http://www.econ.yale.edu/~shiller/data.htm). A copy of this data is included in this archive.

3. Measures of household expectations come from the Survey of Consumers at the University of Michigan (downloaded from https://data.sca.isr.umich.edu/charts.php). A copy of this data is included in this archive.

4. Construction and aggregate productivity are taken from the World KLEMS database (downloaded from http://www.worldklems.net/data.htm). A copy of this data is included in this archive.

5. Input shares for calibration of construction labor share come from the BLS Multifactor productivity database, available at https://www.bls.gov/mfp/data.htm.

Dataset List:

Data file	Source	Notes	Provided?
data_table/fred_data.mat	St Louis FRED	Downloaded w. Datafeed toolbox	Yes
data_table/shiller.xlsx	Shiller's website (above)	Real house prices	Yes
data_table/usa_wk_apr_2013.xlsx	World KLEMS	For construction TFP measure	Yes
data_table/klemscombinedbymeasure.xlsx	BLS Multifactor Prod.	For construction labor share	Yes
michigan_table/ylch14.xlsx	Michigan Survey	Income expectations	Yes
michigan_table/ylch23.xlsx	Michigan Survey	Economic news heard	Yes
michigan_table/ylch45.xlsx	Michigan Survey	Home value experiences	Yes

Software:

This code was last run/tested in Mac OSX 10.14 using Matlab R2020a. The automatic linearization of the model uses Matlab's Symbolic Toolbox, with output saved in code_dynamic/aux_files/model_eval.m and code_dynamic/aux_files/model_eval_alt.m. Original download of FRED data also used Matlab's Datafeed toolbox. Using saved output for these, no additional toolboxes are needed to replicate the results here.

Hardware:

These programs have no special hardware requirements.

Instructions for Replication:

- To reproduce Figure 1 and Table 1:

  ```
  >> cd data_table
  >> run_figtable
  ```

  (This code also reproduces the value for our calibration for γ)

- Figure 2 involves plotting the analytical expressions in the paper.

- To reproduce Figures 3 and 4:

  ```
  >> cd code_dynamic
  >> setup
  >> run_quant(3)
  >> run_quant(4)
  ```

  (See code_dynamic/instructions.text for more details on construction of the code.)

- To reproduce Figure 5:

  ```
  >> cd michigan_data
  >> run_mich
  ```