Housing Markets and the Heterogeneous Effects of Monetary Policy Across the Euro Area

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Overview

- Local projections on high frequency MP shocks show that consumption, mortgage, and house price responses are stronger in countries with:
  1. More adjustable-rate mortgages.
  2. Higher homeownership rates (or shares of mortgagors).
- Very rich New Keynesian macro-housing model can reproduce stronger response of Spain.
  - Higher ARM share and homeownership rate interact to amplify MP.
  - Euro-wide mortgage system reduces heterogeneity.
  - Including house price index in MP rule stabilizes output at cost of goods inflation.
- My evaluation:
  - Great model construction to tackle important question.
  - Would be great to see more clearly where results are coming from.
  - Lots of room for additional mechanisms!

Background

- How do changes in interest rates (or other shocks) transmit through the mortgage market?
- **Cash Flow Channel:** some mortgages (e.g., with floating rates) see their payments change.
  - If borrowers have higher MPC than lenders, Δ payments $\implies$ Δ consumption.
  - Examples: Auclert (2019); Calza, Monacelli, Stracca (2013); Rubio (2011).
- **Credit Channel:** shocks may lead borrowers to increase their mortgage balances.
  - Greenwald (2018) framework that this paper's model extends is designed for this.
  - Can occur through increased credit limits (loan-to-value or payment-to-income).
  - Or through increased propensity to borrow (cash-out refinance or new purchase).
  - Potentially very strong stimulus as large amounts flow to high-MPC borrowers.
- Which channel drives the results of this paper?

Cash Flow Channel vs. Credit Channel

- Paper's mechanism on the cash flow side is pretty clear.
  - Adjustable rate mortgages have payments that fall with nominal rates.
  - The bigger the share of ARMs, the more mortgages experience falling payments.
  - More homeowners (mortgages) $\implies$ more ARMs there are, holding ARM share fixed.
- For a country like Spain, with high ARM share and high homeownership, cash flow effect should be stronger.
- Is this the main effect?
  - If so, contribution is nontrivial, particularly in two-country open economy setting.
  - But rough cash flow effect might be obtained from existing models or back of envelope math.

Suggestion #1: Clarify Source

- To clarify channel, can run counterfactual economy in which debt sizes are mechanically fixed at $\bar{M}$ (equal to actual mortgage size in steady state).
  - Resulting economy should only pick up effects driven by cash flow channel.
- To the extent that results do come from credit channel, would be good to understand how.
- Credit volume basically depends on housing demand (through LTV limit and rent/own decision). In turn depends on:
  - Stream of future housing services.
  - SDF of household.
  - Latent demand for credit (multiplier on the borrowing constraint).
- Would be great to see some kind of decomposition here.

Suggestion #2: Mechanisms

- Comparative advantage of this class of model is really on the credit channel side.
- Original Greenwald (2018) paper featured three mechanisms driving the credit channel.
    1. Higher house prices can endogenously relax LTV limits.
    2. Relaxing payment-to-income limits can raise house prices.
    3. Low rates can encourage higher refinancing/transaction rates.
- Current paper features 1, shuts down 2, 3.
- Bringing these mechanisms back in, to the extent they apply in Europe, could be very low hanging fruit (for this or another paper).

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Suggestion #3: International Angle

- Would be great to know if/how international aspect of model is influencing results.
- Many of the experiments use EU structure (e.g., Euro-wide mortgage/housing parameters, house prices in Euro MP rule), but not clear what trade flows are doing.
  - Would a set of closed economies sharing a monetary policy rule exhibit the same patterns?
  - This is a major comparative advantage of the paper, would be great to see its contribution!
- One idea: think about monetary policy as a response rather than a driver.
  - Consider alternative shock that affects housing demand.
  - In closed economy endogenous MP response cools amplification driven by housing markets.
  - But won't in the Euro system if Spain has strong amplification but Germany does not.

Conclusion

- Rich and very well constructed model of housing markets in a currency union.
  - Great fit of empirical evidence.
  - Interesting policy experiments.
- But contribution will be stronger if we better understand the mechanism.
  - This is a **big** model. Many possible active mechanisms.
  - Cash-flow channel vs. credit channel?
  - Open economy vs. closed economy?
- Plenty (perhaps too many) interesting avenues, many other potential papers to write!