Discussion of "House Prices, Local Demand, and Retail Prices" by Johannes Stroebel and Joseph Vavra

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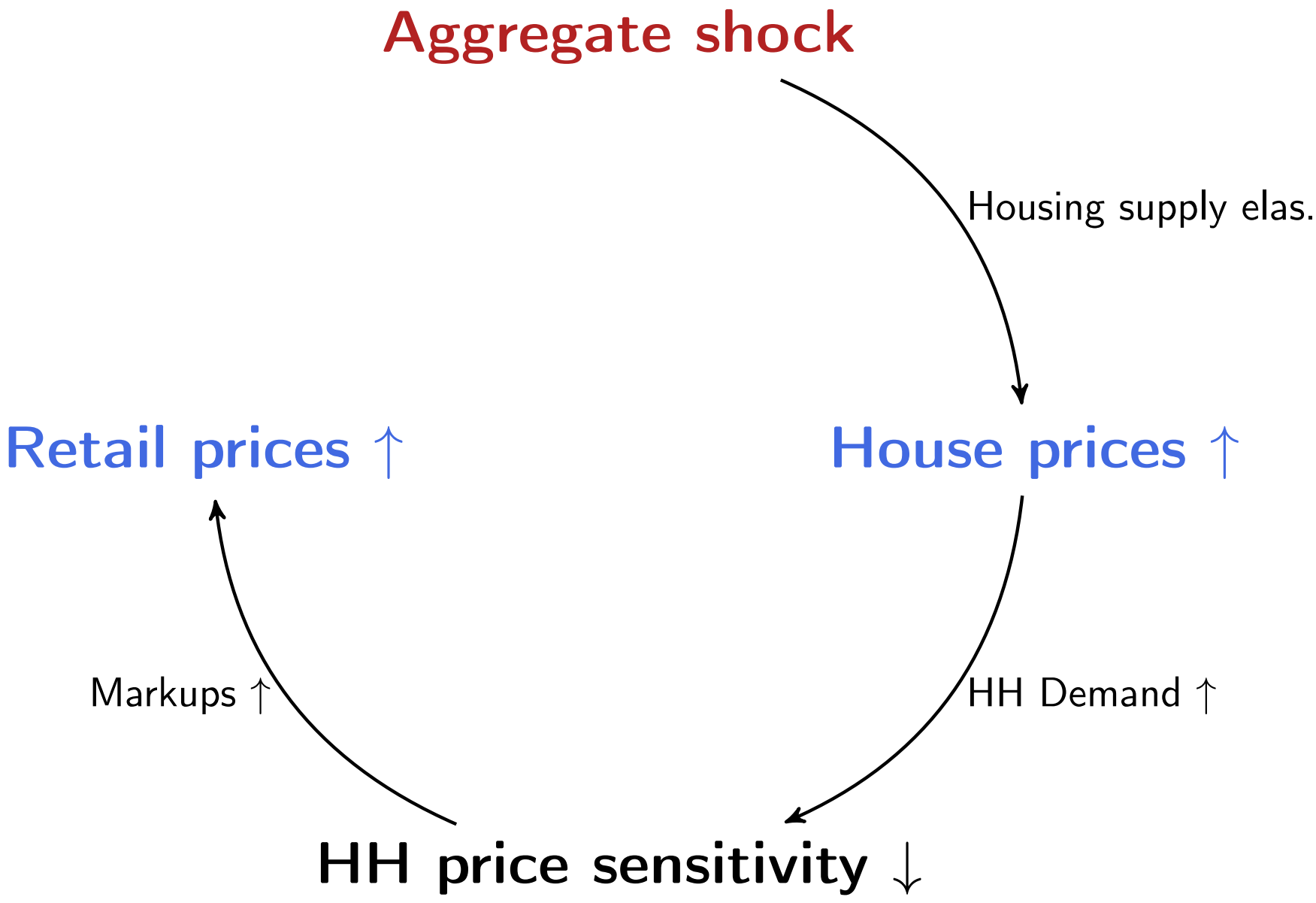
What They Do

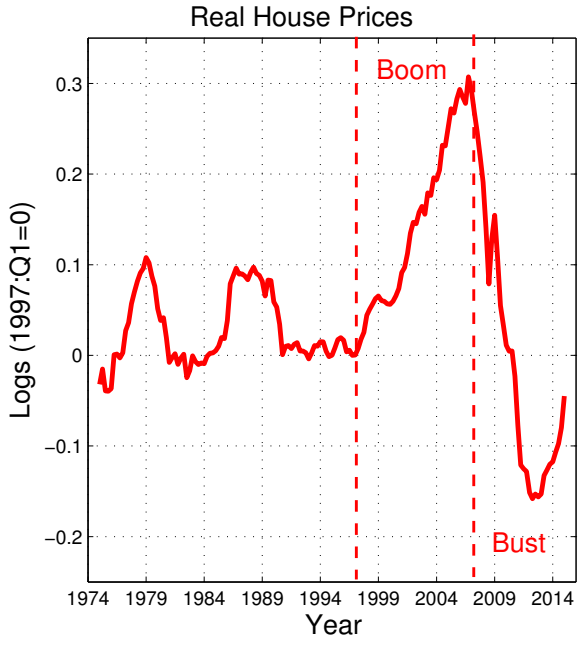
- Want to understand how house price changes affect local demand, shopping behavior and retail prices
- Four main parts to the paper:
  1. Estimate the effect of house prices on retail prices
  2. Argue that 1 operates through increased markups
  3. Provide evidence on shopping behavior to rationalize 2
  4. Explain what the results in 1-3 mean for how we think about macro
- Very nice paper (really, almost 3 papers in one). Careful data work across many large micro data sets. Important new facts for macro.

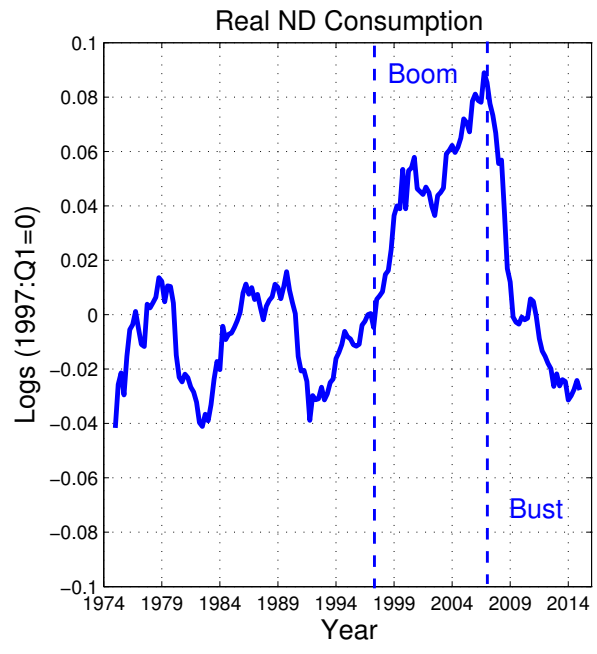
The Story


Aggregate shock
Housing supply elas.
House prices ↑
HH Demand ↑
HH price sensitivity ↓
Markups ↑
Retail prices ↑

Big Picture Thoughts

- Empirical regularity: house prices and consumption co-move:





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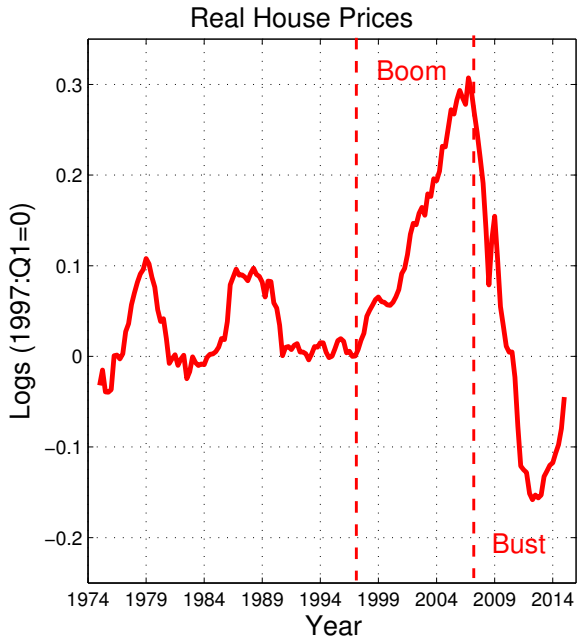
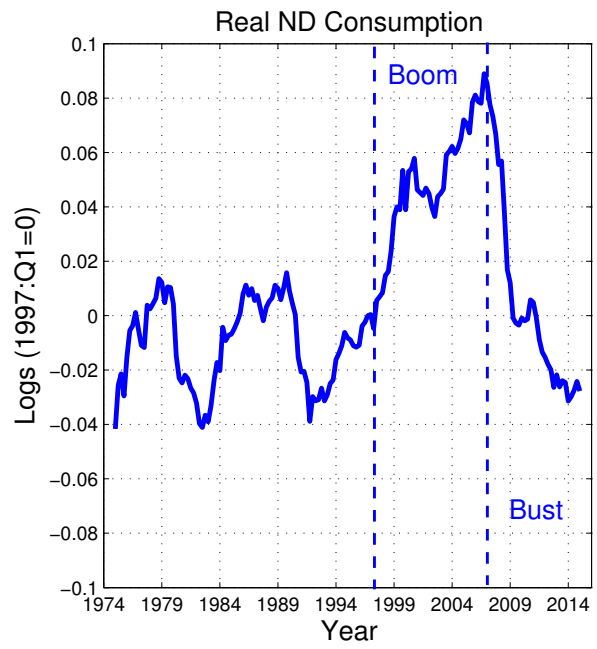
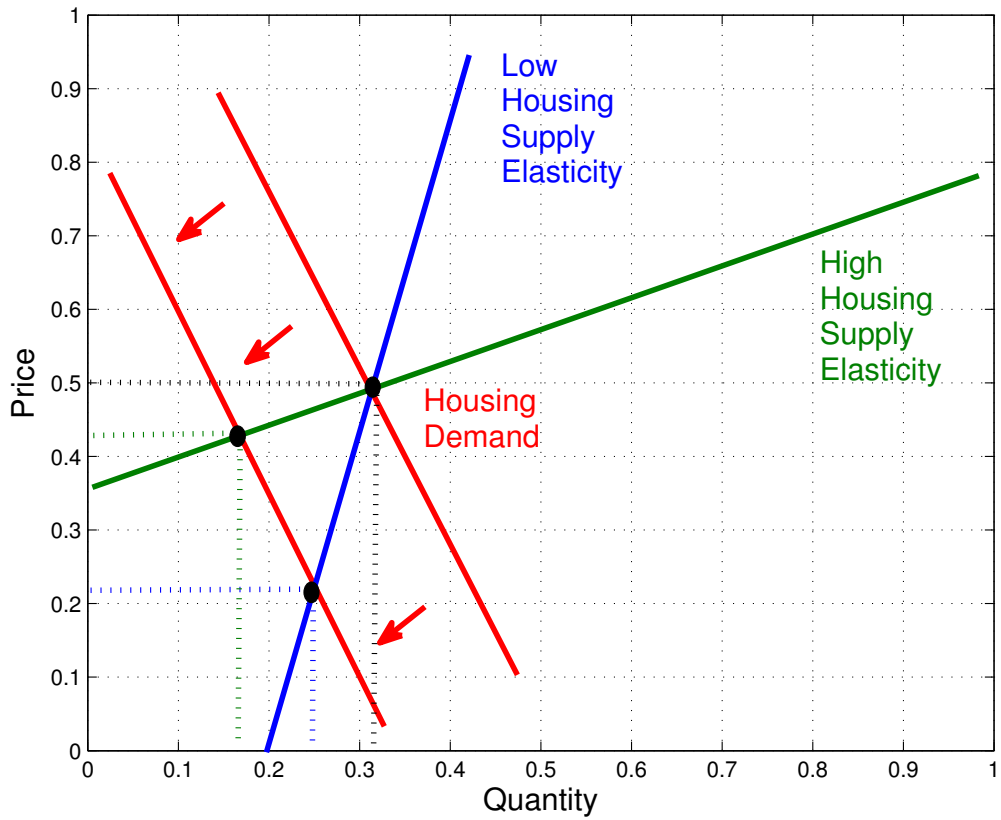




- Papers by Mian & Sufi suggest most of movement in C driven by HP
- Natural to look at retail prices and shopping behavior...
- ...but co-movement of C and HP suggests possible common shock moving both...(and what is the aggregate shock?)

Empirical Strategy

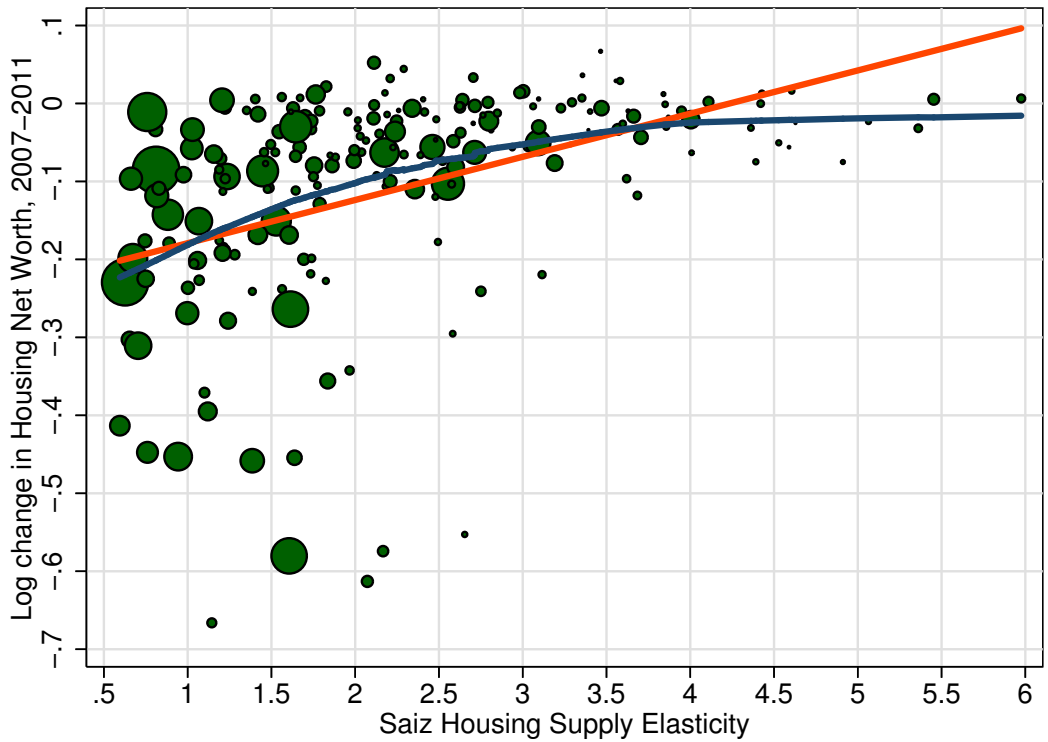
- Use regional variation in house prices to identify the effect on markups, shopping behavior, retail prices
- Nutshell: Want ΔRP as a function of ΔHP
- How to rule out shock that moves both? Instrument for supply availability (geographic, regulatory, etc)



Cheap shot: Instrument Validity

Critiques of the Saiz instrument as valid for movements in house prices by Davidoff (2013, 2015)

- Clearly valid — but is it exogenous?



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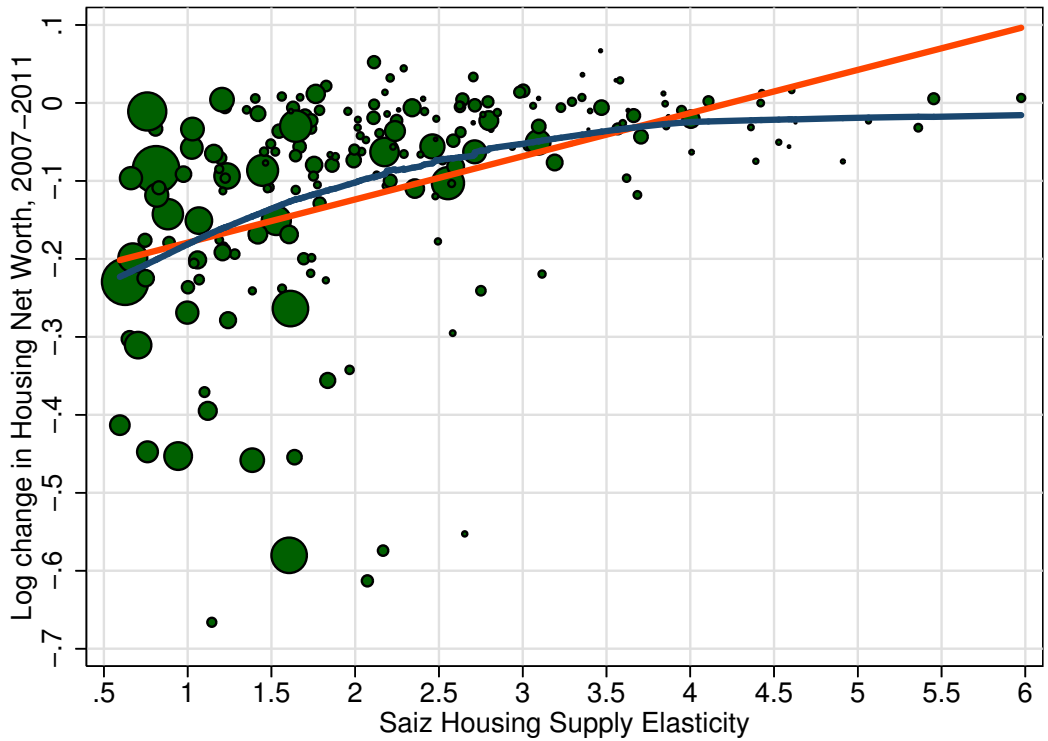

- Housing supply increased more in *low-elasticity* areas
- Elasticity correlated with productivity measures, immigration, etc

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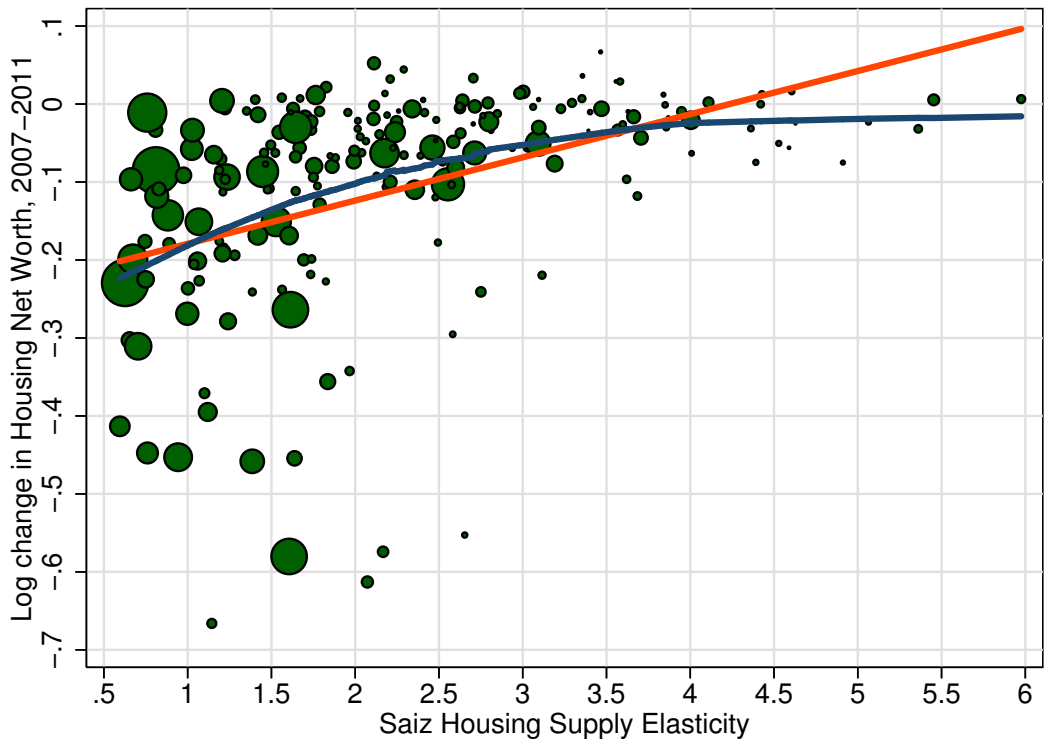

- Movement in house prices may not be exogenous...
- ...but correlations are still compelling and useful moments for structural models

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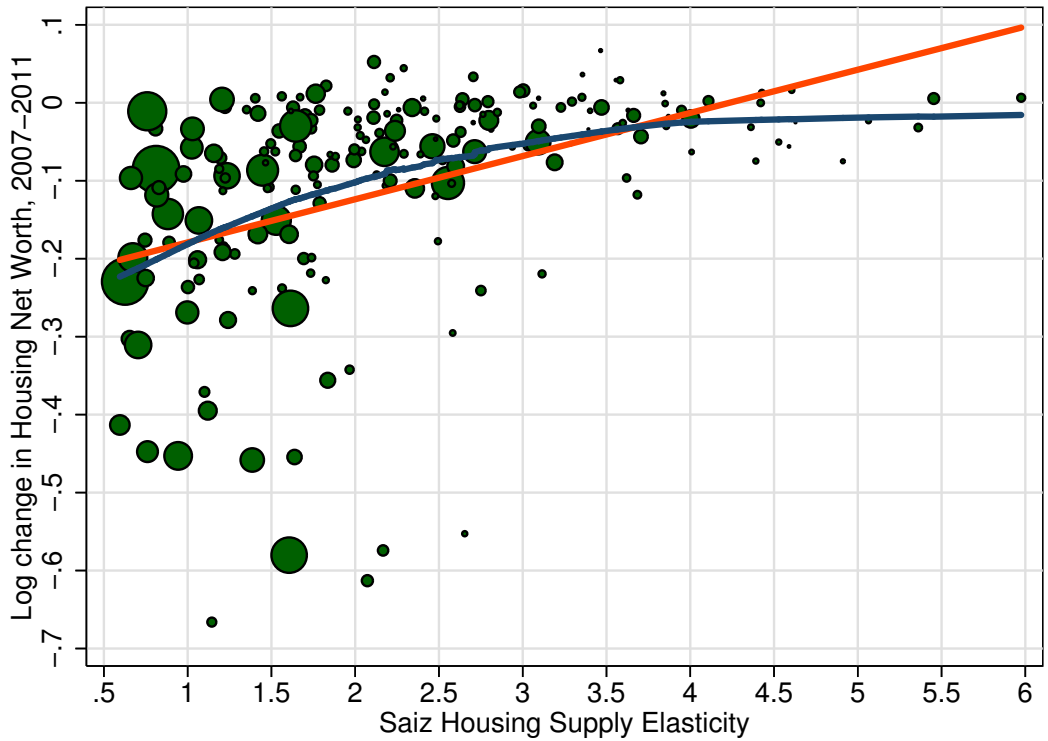

- Brief aside: relationship is clearly non-linear
- Use non-linear first-stage as in Kaplan, Mitman and Violante (2016)

Home-ownership rates

- Idea: HP should have bigger effect in areas with high ownership rates
- Interact ΔHP with home ownership, run saturated regression
  - Positive significant effect on interaction term
  - Negative effects on ownership and prices (?)
- Ownership encodes future expectations (e.g. Attanasio et al. 2009)
- Ownership rates moved a lot over the two time periods
- Does it make sense to use average ownership rates over 2007–2011 for the 2001 to 2006 and 2007 to 2011 price changes?

Representativeness of Basket

- Data mostly processed foods and toiletries
- Similar to BLS Food-at-home
- How do expenditures (or total sales) for this sample move with HP?
- How does expenditure on this basket move relative to total Homescan? CEX basket?
- Are the shopping behavior results the same restricting to UPCs in IRI?

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- How to interpret the movement in prices? Permanent shock to level? Growth rate?
- Elasticity may depend on the shock that caused prices to move in the first place
- Perhaps better interpretation is the effect of HP on retail prices (and markups and shopping) conditional on the shocks that moved aggregate prices to begin with

Marginal Costs: Rents and Wages

- Control for changes in retail rents and wages
- When you control for wages, is it retail sector only? Would think should separately control for Δ retail and non-retail (one affects MC, other demand)
- Firms forward looking in price setting behavior:
  - Do $\Delta HP \Rightarrow$ expected changes in future rents?
  - ... expected changes in future wages?
  - Suggests using an estimator that controls for expectations

Concluding Thoughts

- Ambitious paper
- Impressive amount of data work and robustness analysis
- Clearly, an important paper in the agenda of using rich micro data and regional heterogeneity to inform about the macro economy
- Key empirical moments that structural models will have to be consistent with (even if we're agnostic about causality)
- Exciting future avenues for research to explore more the mechanism and shopping behavior