Betting on the House: Subjective Expectations and Market Choices

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Discussion by

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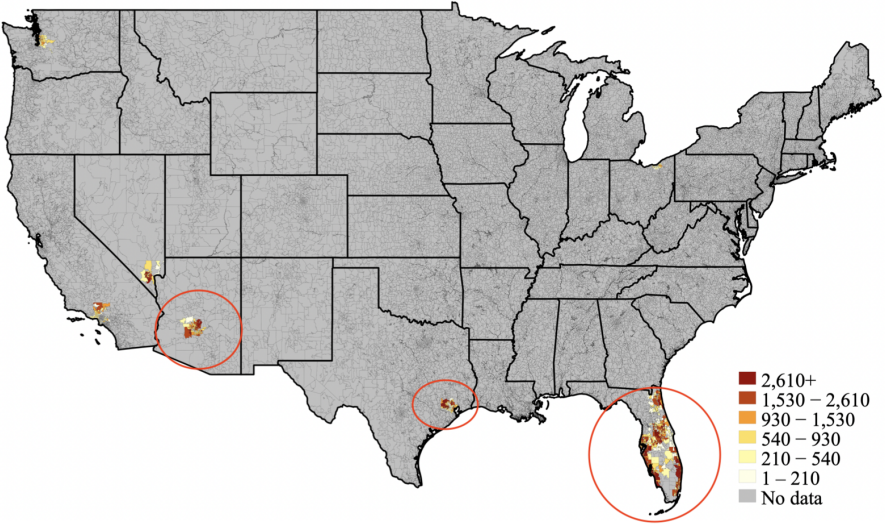
This paper: $\mathbb{E}[\Delta P] \uparrow \implies$ house time on market $\uparrow$

- Propose survey methods to show link between HP growth expectations and liquidity
  - Two randomizations: source (i.e. the signal) and disclosure (i.e. whether I get it)
  - Collect read receipts from online survey link $\longrightarrow$ staggered event study + follow up
  - AMT survey instrument: check that beliefs were actually updated
- **Results are not obvious!**
  - Zip code-specific signals are already public and based on Zillow's model
  - Why does this nudge do anything? (open question)
- Very comprehensive in robustness checks and dealing with non-compliance
  - Especially impressive given the need to pre-register RCTs
- My comments focus on interpretation and open doors for future extensions

Comment #1: the role of geography in the results

a. Location of Listings



Comment #1: the role of geography in the results

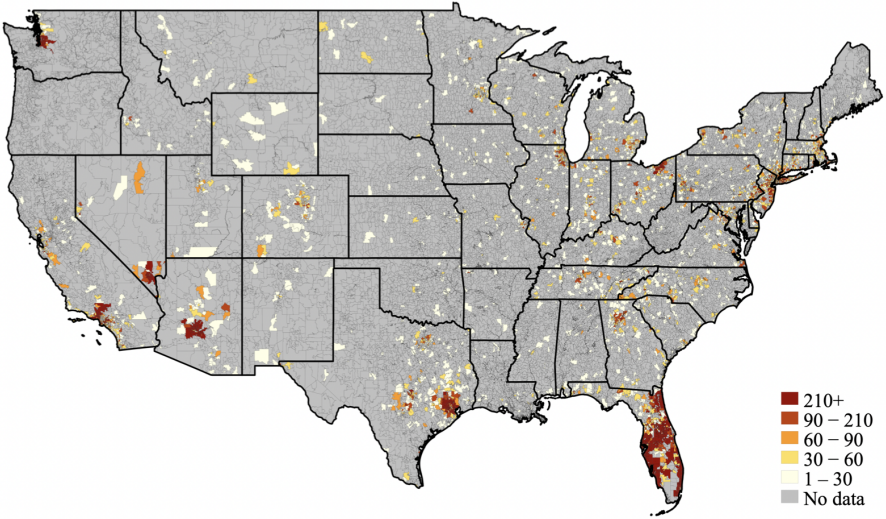
- Collect assessor data from 36 counties
  - Assessment data typically not readily available except through FOIAs
  - These are all booming markets: CA, WA, FL, AZ, TX
  - Architectural styles more **homogeneous** than housing stock in rest of country
  - Big **iBuyer** presence (e.g. Opendoor) $\longrightarrow$ more liquid to begin with
  - Less uncertainty on the pricing and offer arrival rate
- **What is the geographic distribution of respondents in the AMT survey?**
  - If span the entire U.S. then external validity less of a concern
- Also more likely to be investment properties given variation in location of owners

Source: "The Future of Housing Rises in Phoenix," *Wall Street Journal*, June 19, 2019

- Aerial view of Phoenix, AZ – notice how similar the homes look in the suburbs?

Out-of-town owners are large fraction of sample

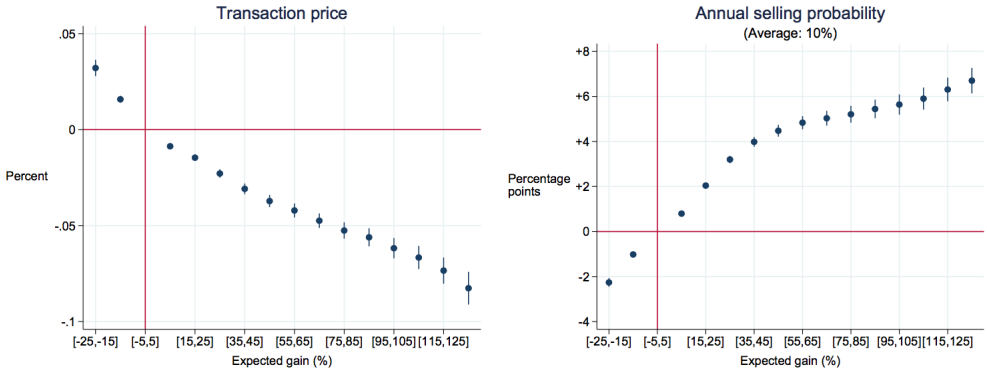
b. Location of Owners



Comment #2: properties are <u>not</u> people

- Many tests use the characteristics of the properties rather than the people
  - Example: balance tests using only the property variables (e.g. Table 1)
  - Given homogeneous housing stock, not surprising that randomized on prices and layout
- Some data limitations, but name strings tell us a lot!
  - Assessor's data often contains history of tax payments $\longrightarrow$ delinquency outcomes
  - Merge to standard databases to fill in information about owners' other properties (spillovers?), financing, housing tenure choices (DUA issues?)
  - Also have race from a private vendor, and could impute it through Census surname list
- Why might this matter, other than robustness?
  - **Reservation prices are lower when people have been in the house longer** $\longrightarrow$ cap gain is already very high! (Bracke & Tenreyro 2021)

TOM ↓ when expected gain is high



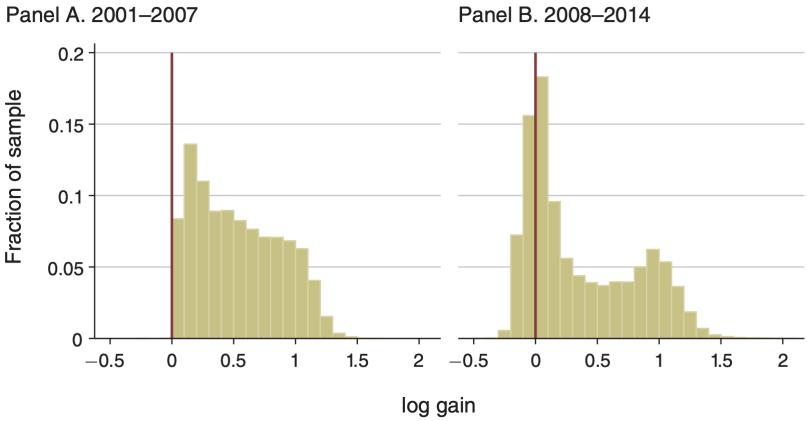
Source: Bracke & Tenreyro (2021): "History Dependence in the Housing Market," *American Economic Journal: Macroeconomics*

- Properties expected to generate a larger capital gain sell for *lower* prices
- Most of the effect on sale prices due to cognitive biases such as loss aversion

Comment #3: links to loss aversion literature?

- **Loss aversion** drives homeowners' selling decisions (Genesove & Mayer 2001)
  - Evidence: during downturns YOY housing valuation growth bunches around zero
- Loss aversion is a story about uncertainty while the reservation wage theory is not
  - Sources of uncertainty in this context: returns to selling, arrival of offers
  - Uncertainty might be small in this sample given homogeneity of housing stock, thickness of market in summer months (Ngai & Tenreyro 2014)
- **The kink point for a "loss" may not be $\Delta P < 0$**
  - Instead it might be a negative risk premium relative to the outside option
  - Alternatives: sell the house and buy another one, or invest proceeds into stocks
  - In this case, are owners paying two mortgages while they wait to sell the first home?

Comment #3: testing for loss aversion



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- Bunching around $\Delta P = 0\%$ during Great Recession to avoid realized losses

Comment #3: testing for loss aversion

- In lab experiments, loss aversion manifests as **"S-shaped"** curve relating perceived values of gain/loss to the actual gain/loss
- Can we think of this intervention as changing the x-axis on the S-shaped curve?
  - By telling people their market is booming, they now perceive a larger interval of price offers as a "loss" $\implies$ larger inaction region
  - S-curve might also change shape if people think it is more/less likely that their house will sell at the average ΔP signal they receive
- To test, need proxy for perceived value of gains/losses here
  - **Idea:** use sample of people who move while the first house is listed and estimate the extra mortgage payment
  - Value to owner of not realizing the loss from taking a "low-ball" offer

Overall assessment

- **Important contribution to macro-finance, which has long been thinking about how expectations pass through to real outcomes**
- Application to housing markets important because price signals can erode liquidity
  - Housing is already highly illiquid
  - Aggregated (and flawed!) statistics like what Zillow provides might prevent sales
- Methodology is straightforward, affordable, and scalable
  - Nationally representative version of the survey would help with external validity
  - Test of boom/bust asymmetry $\longrightarrow$ loss aversion?
  - Panel dimension to measure persistence in trading behavior (or match quality), take out individual FEs (similar to Shiller's investor surveys for stocks)

THANKS!