FEDERAL RESERVE BANK *of* NEW YORK

Discussion of "History Dependence in the Housing Market: Facts and Explanations" by Philippe Bracke & Silvana Tenreyro

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Summary

- Based on universe of housing transactions in England and Wales over 1995-2014, supplemented by listings data, paper establishes significant history dependence in transaction volumes & prices
  - I.e., p_0 (or $p_t - p_0$) matters for q_{it} (and time-on-market) and p_{it}

- Explores different potential drivers
  - Anchoring/loss aversion (Genesove-Mayer 2001)
  - Downpayment/financing constraints (Stein 1995, Genesove-Mayer 1997)
  - Thick-market externalities (Ngai and Tenreyro 2014)

- Find important role for both anchoring and downpayment constraints
- Loss aversion significant but quantitatively unimportant in explaining low transaction volume post-crisis
  - Most homeowners remained in “gain” territory relative to purchase price

A timely topic – persistent effects of housing bust

- FT, March 27: “UK housing ladder loses two rungs”
- *The early 2000s were a heyday of “trading up” to a bigger house. Strong price growth made it easy to build up equity in a home: in 2003 and 2004 more than one in 10 mortgaged owner-occupiers moved house each year, Savills found. Now the number is one in 23. (…) “You get ‘mortgage prisoners’ who have not generated [enough] equity in their home to enable them to move up the ladder.”*

- WSJ, April 8: “Housing bust lingers for Generation X”
- *The housing market can be viewed as a progression through time: younger people start out renting, save enough to buy houses, build equity and then trade up to more desirable homes. Now that trajectory has been interrupted, with fewer middle-aged buyers trading up, which would open up the inventory of smaller homes for younger buyers.*

Comment 1: Heterogeneity

- Measuring average effects in big, representative dataset is important…
- …but could do more to explore the richness of the data

- For instance, “housing ladder” stories should mean that especially the friction coming from the downpayment channel should disproportionately affect “starter home” neighborhoods (many first-time buyers; lower transaction prices)
    - Relatively less wealthy
    - Younger owners (who may require a gain to “trade up”)

$\Rightarrow$ particularly large decline in transactions in these neighborhoods after 2007?

- Also, already find estimates that vary quite substantially over time (different subsamples) or when looking only at new properties $\Rightarrow$ interpretation?
    - Time-varying availability of low-downpayment mortgages?

Comment 2: Identification

- Gains and losses strongly correlated with amount of time spent in home – which in turn affects prob(selling) and price by itself (e.g. through depreciation)

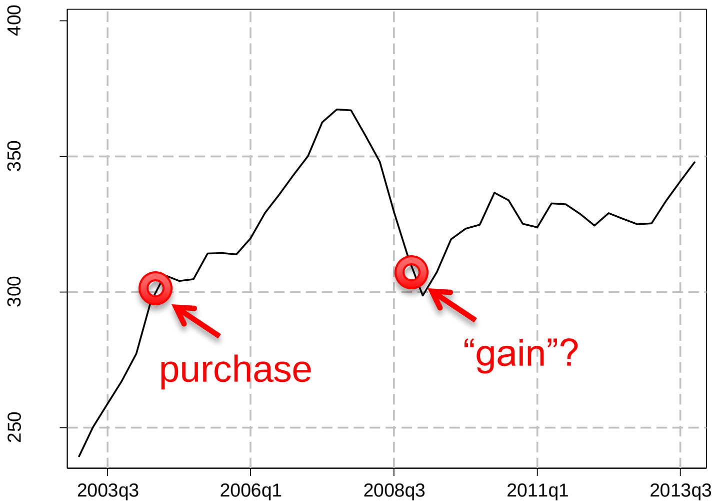
- Authors control for this via a cubic function in duration (interacted with new property dummy), with constant coefficients across time and space
- Reasonable assumption? Can imagine e.g. time-varying discount on older properties depending on volume of new supply
- “Testable” by estimating across regions / time periods / different functional forms

- This issue may explain why coefficients on gains/losses change significantly when looking at different sample periods?

- Using local HPI (rather than national) may help in that it provides additional variation (for given purchase year – sales year combination)

Comment 3: Which price level to compare against?

- Gains/losses measured by comparing house price level to what it was at purchase
- However, evolution of prices in between may also matters; in particular, price peak may be an important reference point
  - Psychologically – existing evidence of peak as reference point (e.g. Gneezy 2005; Baker-Pan-Wurgler 2012)
  - Because of additional borrowing (home equity withdrawal) during run-up
    - Not captured by LTV at purchase
    - May be able to measure this by using also re-mortgages in FCA data



- Taking into account losses vs. peak may change conclusion that “loss aversion can account for a very small share of the variation in house prices or quantities.”

Some survey evidence from across the pond

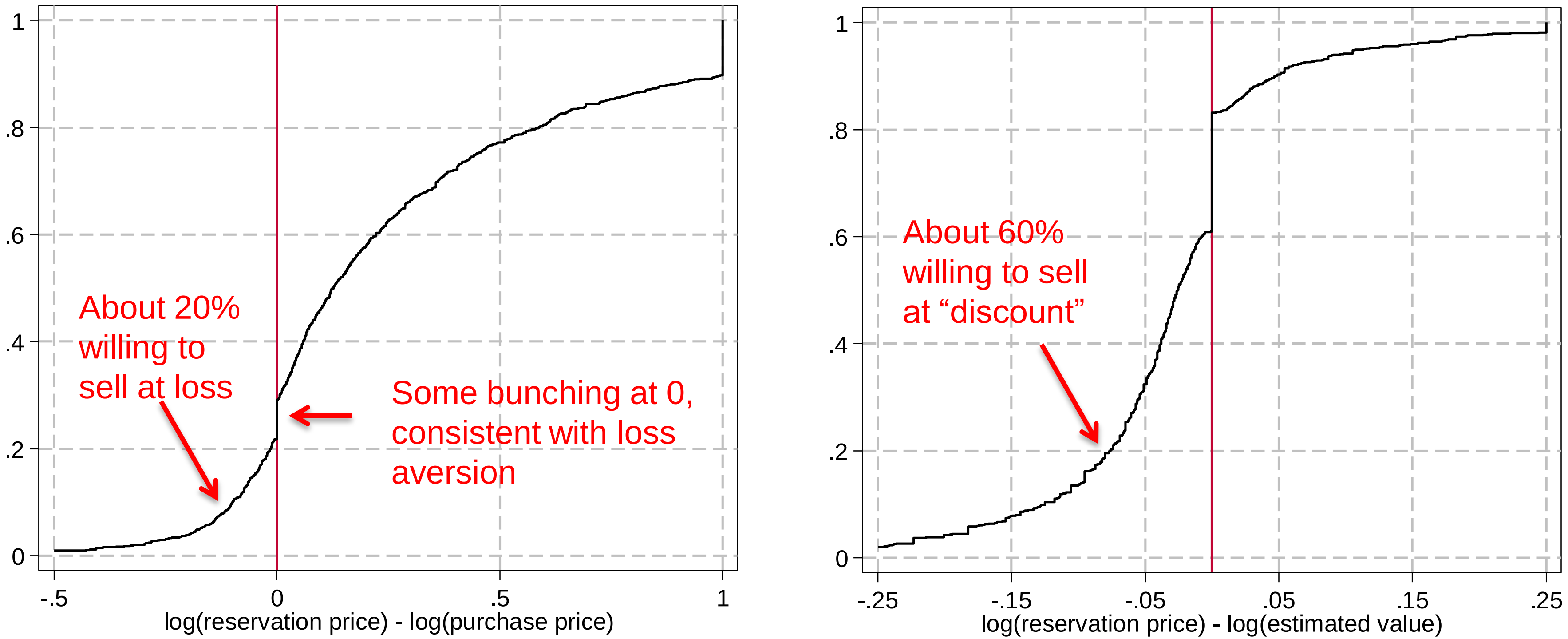
- Some suggestive evidence supporting loss aversion, from the NY Fed's *Survey of Consumer Expectations* (see e.g. Fuster and Zafar, 2015)
- Housing module, 3 waves, Feb 2014 – Feb 2016; 2,500 home-owning respondents

- Asked for (among many other things):
  - "What was the purchase price of this home?"
  - "What do you think your home would sell for today?" (estimated value)
  - If prob(selling within next 12 months) ≥ 5% (1,200 respondents):

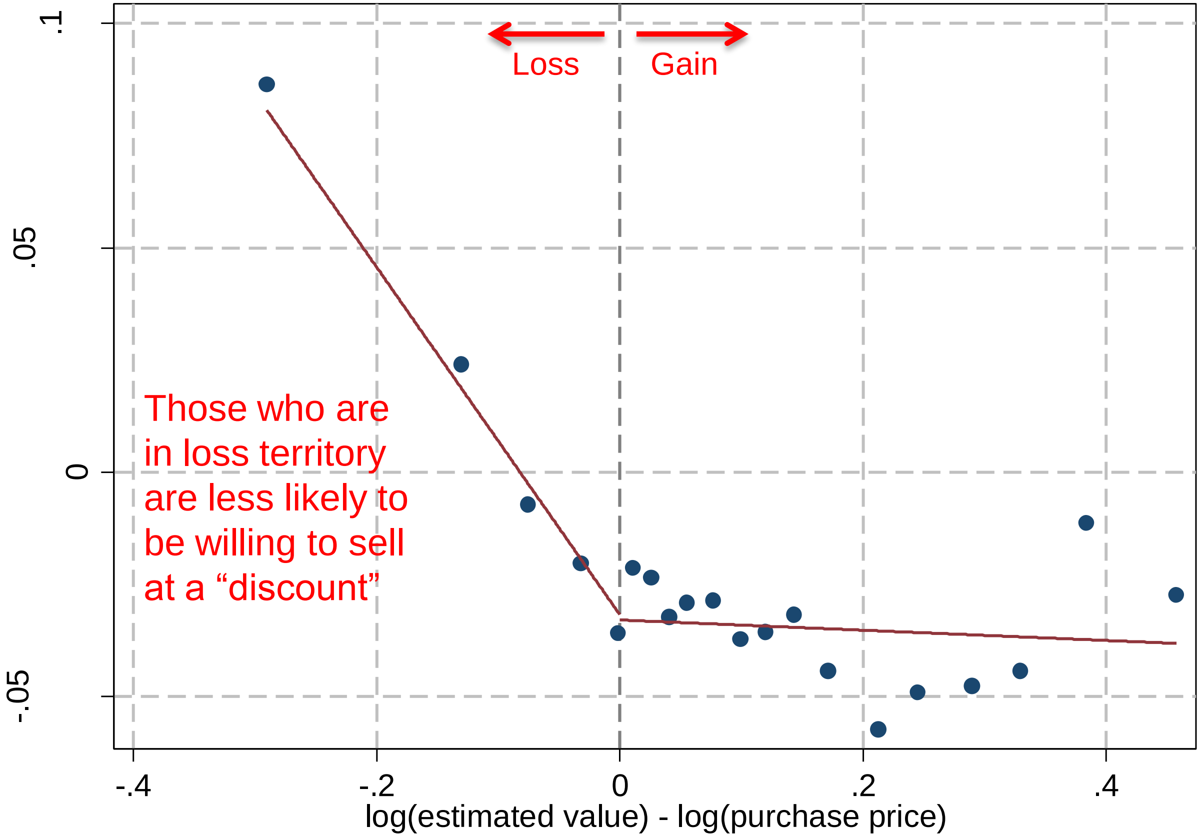
    "What is the **absolutely lowest price** at which you would be willing to sell your home?" (reservation price)

- Advantage of survey data: subjective valuation (rather than imputed from HPI); reservation price not conditional on listing/selling

Reservation prices vs. purchase price / est. value



Evidence for loss aversion (binscatter)



Not shown: slope left of zero stronger for respondents with current LTV > 50, consistent with importance of financing constraints.
But still kinked for respondents w/o mortgage.

➡ supports channels in Bracke-Tenreyro

Policy implications of results?

- Important direction for future work: structural model that quantitatively replicates observed history dependence, and in which can study
  - Welfare consequences
    - Through effects on labor mobility / match quality / homeownership rate
    - Thorny issue: anchoring/loss aversion = preference or "mistake"?
  - Policy implications

- History dependence of housing market may have interesting implications for
  - Monetary policy (optimal inflation target?)
  - Macroprudential policy (LTV caps?)
  - Mortgage design (promote faster amortization? shared equity mtgs?)