“Social Networks and Housing Markets”
by Bailey, Cao, Kuchler, and Stroebel

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Belle of the [NBER SI] Ball

- Behavioral Macro
- Impulse & Propogation
- Digitization
- Household Finance
- Real Estate
- Corporate Finance...
So what’s all the fuss about?

1. Crisis post-mortem consistent w/ bubblicious beliefs (e.g., Liu 2017 and Cheng, Raina, Xiong 2014)
2. Lots of theory: extrapolative expect., differing priors, sentiments, rational inattention, etc.
3. But unique to measure and have variation in 

\[(\text{sources}_i, \text{beliefs}_i, \text{outcomes}_i)\]
Birds & bees: where do beliefs come from?

• Key part of decision making!
• Rational expectations: agents form unbiased beliefs based on all available info
• Malmendier & Nagel et al. (2011, 2015, 2017a, 2017b)
• Vissing-Jorgensen (2003), Cavallo et al. (2017)
• This paper: impt source = network’s experience
Facebook as a Proxy

• Facebook? Seriously? Yes, seriously.
• Not a unique effect of *online* social networks
  – but unique chance to proxy for full social network
• Many updates to priors collected from networks
  – e.g., cornered at a 2005 family reunion
  – e.g., the legendary Guymons
Every inspirational speech by someone successful should have to start with a disclaimer about survivorship bias [selecting on y].”
-xkcd
1. Operationalize network experience effects
2. Measure personal beliefs with survey
   – n.b. validates causal channel, doesn’t rule out others
3. Measure outcomes with housing data
   – Shows money where mouth is beliefs are
4. Smoking gun: People who report discussing house prices with network are more affected by network experiences
On Magnitudes

• 5 p.p increase in network experiences ==> 17% (3 p.p.) increase in homebuying
• Is 5 p.p. big or small?
• 5 p.p. spread = 2.8σ = difference between 5 and 95th percentile of network experience var.
• Still big! (1σ => 6%) Useful to present elasticity?
Ruling out obvious endogeneity

• Isn’t my network endogenous to my unobservable housing demand? Of course.

• Paper relies not on exogeneity of network but exogeneity of network’s home-price experiences

• From 1993-2012, no persistent variation across individuals in network housing $\alpha$
I’m more worried about $\beta$

- Problem is less network’s excess returns than it is comovement with demand shocks
  - (especially given effects for own $\rightarrow$ rent)
- Average network experience isn’t persistent across people, but might cyclicality be? If so, may be correlated with demand shocks
  - Tuzel & Zhang (2017) – effect of high local $\beta$s
Location, location, location?

- Rule out learning about national component because geographically diverse networks do not have larger effects on homebuying.
- But why assume suddenly that people will rationally value disperse networks more?
- If neglecting locality of housing markets, could still be trying to learn about national demand, just doing it in a convenient (but ineffective) way.
Intensive Margin Results

• Buyers with higher network experiences buy larger homes and homes with larger price residuals
• But conditioning on buying conditions on unobservables, e.g., taste for housing
• Rich controls help ($R^2$ high for logP but not sqft), but tricky argument to make (e.g., censored regression lit).
• Need more to show that conditional on network experiences, people who buy aren’t different from people that don’t.
Consumption Externalities?

• Authors rule out keeping-up-with-Joneses
• Effects not driven by friends’ insensitively posting pics of their gawdy McMansions but from the *price* experiences of their friends’ geographies.
• Robust to controlling for local trading volumes, or renters’ experiences.
  – But renters HP experiences correlated with owners purchasing
• Could control for network buying activity via Axiom? Prob. correlated with discussing HP with network
Minor Points

• IV probably has same proxy-based meas error as full network’s ME. Means still lower bound of full effect of (online and off) social network experience?

• Conditional on controls, is IV correlated with OVB (within-LA experience)? Could test this.

• How define non-clustered occupations?
  – Worry that non-clustered ≠ mobile.

• OLS comparisons and first stage doc useful for App’x
Conclusion

• Large component of beliefs sourced from less-than-full-information sources
• Consistent with recent theoretical literature
• Social network key driver of beliefs
• Beliefs have real effects on individual outcomes!
• Aggregates up, too (see companion paper)