### "Social Networks and Housing Markets" by Bailey, Cao, Kuchler, and Stroebel **Discussion by Christopher Palmer MIT Sloan** July 10, 2017 **NBER Summer Institute Corporate Finance**



# 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

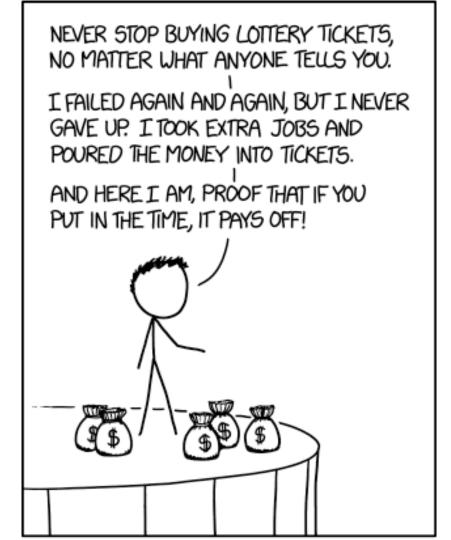
(sources<sub>i</sub>, beliefs<sub>i</sub>, outcomes<sub>i</sub>)

#### 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

# Paper Summary

- 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
- 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 =  $2.8\sigma$  = difference between 5 and 95<sup>th</sup> 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 *α*

# 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 -> 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
  - Sinai (2012), Palmer (2015) strength of 1980s local housing cycle predicts 2000s cycle

## 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<sup>2</sup> 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  $\neq$  mobile.
- OLS comparisons and first stage doc useful for App'x

### Conclusion

- Large component of beliefs sourced from lessthan-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)