Discussion of Agarwal, Hu, and Huang (2013)

Rushing into the American Dream? House Prices, Timing of Homeownership, and Adjustment of Consumer Credit

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This paper

- How does house price growth affect entry into home ownership?
  - Liquidity constraints: high level of prices $\rightarrow$ discourage purchase
  - House price expectations: buy earlier if expect faster increases
- Contribution of this paper: combination of
  - Emphasis on (and observation of) timing of first ownership
  - Amazing data: large panel of individuals from credit reports, 1999-2012
  - Modeling utility from home ownership as varying over life cycle
- Results
  - Higher house price growth over previous three years associated with increased probability of first entry into ownership
  - Estimates imply bigger effects at younger ages
  - Going from bottom to top house price growth quartiles: age at which the median individual is a home owner is lower by 5 years
    - ⋆ In comparison: this is what I found in Fetter (*AEJ-Policy*, 2013) to be the effect of VA loans c. 1960 ($\sim$10 p.p. reduction in down payment)

Overview of comments

In this discussion will focus on just a couple

(1) Basis of claim that higher prices induced earlier purchase

(2) Mechanisms consistent with results other than this one

Did greater price growth induce earlier purchase?

- Potential concern: house price growth caused by ‘unobserved’ factor also associated with earlier purchase.
- Is credit score a sufficient control for credit supply?
- Sufficient controls for housing demand?
- Grumpy reading: even coarse demand controls reduce $\hat{\beta}_1$ from .8 to .5

	(1)	(2)	(3)
HPI growth measure:	3-year HPI growth from t-3 to t		
HPI growth	0.81	0.727	0.502
	[0.244]***	[0.250]***	[0.262]*
2nd quartile HPI growth CBSAs			
3rd quartile HPI growth CBSAs			
4th quartile HPI growth CBSAs			
Credit score (time-varying)	0.006	0.006	0.006
	[0.000]***	[0.000]***	[0.000]***
Annual average employment growth		0.007	0.004
		[0.005]	[0.006]
Average weekly wage growth		0.009	0.008
		[0.006]	[0.006]
Average quarterly growth in number of establishments		-0.002	-0.003
		[0.004]	[0.004]
Unemployment rate			-0.026
			[0.013]**
Observations	524,168	524,168	523,768
Year dummies	Yes	Yes	Yes
Age dummies	Yes	Yes	Yes
CBSA dummies	Yes	Yes	Yes

Standard errors in brackets *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Did greater price growth induce earlier purchase?

- IV helps – results in Table A.1 are encouraging
- But I would push on these more
- E.g., better not to control for these X's in baseline

	(1)	(2)
	First Stage	IV Probit
Left-hand side variable:	3-year HPI growth from t-3 to t	Hazard rate
HPI growth measure:		Instrumented 3-year HPI growth
Elasticity × National HPI growth	-0.278	
	[0.032]***	
HPI growth		0.525
(Instrument = Elasticity × National HPI growth)		[0.311]*
Credit score (time-varying)	0	0.003
	[0.000]	[0.000]***
Annual average employment growth	0.003	0.004
	[0.001]**	[0.005]
Average weekly wage growth	0.001	0.004
	[0.001]	[0.004]
Average quarterly growth in number of establishments	0.001	-0.001
	[0.001]*	[0.003]
Unemployment rate	-0.021	0.004
	[0.003]***	[0.012]
Observations	295,746	295,746
Year dummies	Yes	Yes
Age dummies	Yes	Yes
CBSA dummies	Yes	Yes

Mechanisms

How to interpret bigger increases at younger ages?

- Consistent with authors' mechanism (expectations differentially affecting young, shifting purchase earlier)
- But also with other possibilities
  - Higher prices induce the young into smaller houses, but possibly higher rates of home ownership: cf. Attanasio, Bottazzi, Low, Nesheim, and Wakefield (2012)
  - Conditional on not buying when young, the older cohorts must systematically differ – may be less responsive to *any* incentive to buy

Smaller comments

A few miscellaneous thoughts (if there is time)

- Since focus of this paper is on entry into ownership, do more to validate measure of home ownership in Equifax data
  - Authors note variability across repeated observations on individuals in date of first mortgage loan – more information (maybe in appendix)
  - Home ownership rates systematically lower than Census – as also noted in Mian and Sufi (*AER*, 2011). More on why? Differential by age?
  - I suspect it would not be too hard to compare to Census microdata.
- Second part of analysis (other borrowing behavior) is interesting, but could it be better motivated / integrated with the rest of the paper?

Summary

- Very interesting paper: helpful model and amazing data
- I would suggest pushing harder on IV and (if possible) mechanisms