

Discussion of “Real Estate Investors and the 2007-2009 Crisis” by Stefania Albanesi¹

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¹Disclaimer: The views expressed here do not represent those of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

- Goal: Examine the role of individual investors during the housing boom and bust
 - Empirical part: continuation of “Credit Growth and The Financial Crisis: A New Narrative” by Albanesi, De Giorgi, and Nosal
 - To be added: what drives the investors’ activities? how are these investors different from other home or nonhome owners?
 - Model part: extension of “The Housing Boom and Bust: Model Meets Evidence” by Kaplan, Mitman, and Violante (2017)
 - To be conducted: what to match? how well do the model match the empirical observations? Policy implications?

- Additional literature document the importance of individual investors during the housing boom and bust
 - Gao, Sockin, and Xiong. “Economic Consequences of Housing Speculation,” R&R RFS
 - Bayer, Magnum, and Roberts. “Speculative Fever: Investor Contagion in the Housing Bubble,” R&R AER
 - Chinco and Mayer. “Misinformed Speculators and Mispricing in the Housing Market,” RFS (2016)
 - Gao and Li. “Residential Real Estate Investment and House Price Dynamics,” manuscript (2015)
 - Early literature summarized in Li, “Smart Money or Dumb Money: Investors’ Role in the Housing Bubble,” Business Review (2015).

- Limitation of Equifax
 - No information on asset side (important as shown later that investment housing decision is a portfolio decision) including house value
 - No information on where the investment housing is located
 - No information on income
 - Few information on demographics: only age

Discussion of Empirical Part: Additional Evidence

- Investment activity indeed more active in the crisis states (HMDA)

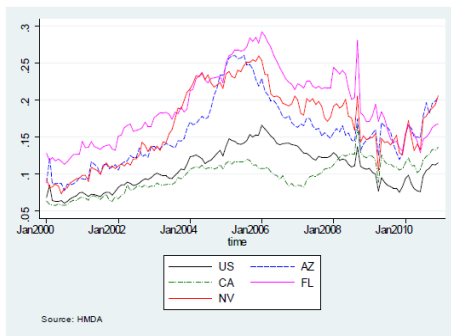


Figure 2. Share of Investment Housing Application Numbers – US and Selected States

Discussion: Investors versus Subprime Borrowers

- Some of the investment mortgages are subprime (HMDA by HUD lender definition)

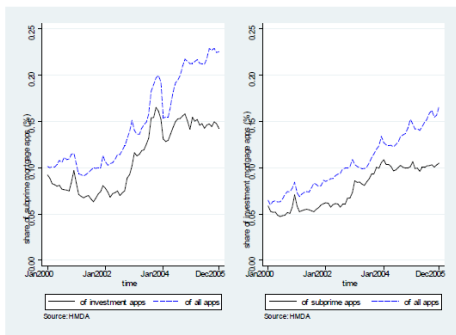


Figure 4. Investment Housing and Subprime Mortgages (HMDA)

Discussion: Investors' Mortgage Product

- Investors slightly more likely to use exotic mortgage products (LPS/CoreLogic)

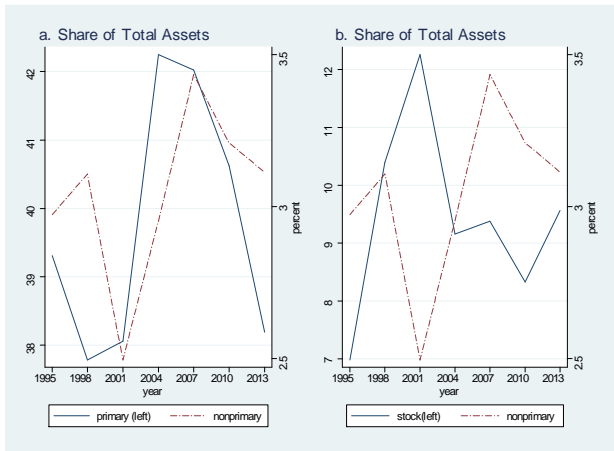
orig. year	LTV (median)				Share of ARM (%)				Share of Interest Only (%)			
	Prime		Subprime		Prime		Subprime		Prime		Subprime	
	Prim.	Inv.	Prim.	Inv.	Prim.	Inv.	Prim.	Inv.	Prim.	Inv.	Prim.	Inv.
2000	89.83	79.15	100.00	90.00	10.55	13.24	57.21	27.70	0.002	0.070	0.464	0.436
2001	89.74	79.27	100.00	95.00	5.98	8.23	55.49	36.20	0.002	0.017	0.383	0.591
2002	84.04	79.17	100.00	94.92	12.81	13.00	63.11	38.57	0.050	0.068	2.645	1.803
2003	80.00	79.23	100.00	94.96	17.72	21.39	68.86	43.01	0.815	1.532	10.344	7.634
2004	79.99	79.21	100.00	94.55	35.68	44.47	81.10	64.55	7.597	12.257	31.149	27.669
2005	79.78	78.96	100.00	95.00	36.44	49.44	81.10	72.31	18.953	25.726	39.782	35.991
2006	79.76	78.13	100.00	95.00	29.17	39.08	78.45	66.90	18.753	26.874	32.560	35.258
2007	80.00	78.31	100.00	90.00	12.62	19.72	68.93	60.95	13.989	21.302	39.876	41.158
2008	88.27	76.00			4.31	7.08			2.452	5.583		
2009	90.01	74.62			1.63	3.67			0.256	1.244		
2010	91.93	74.90			3.89	7.23			0.302	1.344		

Discussion: Investors

- Rise of purchase more on the intensive margin/house value (SCF: 1995-2013)

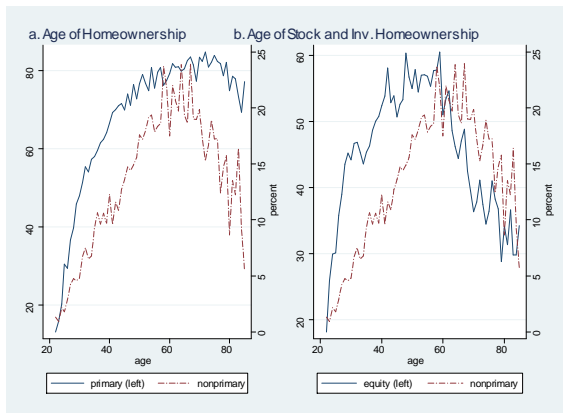


- Moving Money from Stock to Houses (SCF)



Discussion: Age Profile

- Primary versus Investment versus Stock Ownership (SCF)



Discussion: Demographic Information (SCF)

- 87% of investors own primary homes; 72% own stocks;
 - 17% of primary homeowners own investment homes; 57% own stocks;
 - 66% of households own primary homes; 13% own investment homes; 46% own stocks
- Mean household income (1982\$)
 - Investor: \$77,838; Primary: \$48,658; Stock holder: \$59,093; General: \$39,738
- Mean assets (1982\$)
 - Investor: \$705,126; Primary: \$332,792; Stock holder: \$401,249; General: \$237,199
- Average age
 - Investor: 55; Primary: 52; Stock: 49; General: 49 (maybe more second home)

Discussion: Where Do Investors Buy?

- According to the National Association of Realtors' 2014 Investment and Vacation Home Buyers Survey
 - 15 percent of the investment property is within 5 miles of the buyer's primary residence; 30 percent is within 10 miles; and the median is 20 miles.
 - The land area of a zip code varies widely between less than 1 square mile to 13,431 square miles with a mean of 90 square miles.

- Based on the empirical evidence provided, additional features needed
 - Other asset decisions, stock and maybe even bond (there is an earlier literature on that but only with primary housing)
 - Perhaps cannot take interest rate as exogenous (low interest rate had fueled the housing market)
- Need to think of what shocks can deliver the price movements
 - Aggregate shocks such as TFP and loosening of financial constraints will not be enough as the literature has shown
 - If introduce shocks to beliefs, can you deliver bigger movement in intensive margin than extensive margin
 - If introduce location, perhaps supply elasticity is an important factor to consider

Discussion: Housing Recovery

- Lambi-Hanson, Li, and Slokonsky, “Leaving Households Behind: Institutional Investors and the U.S. Housing Recovery,” Philadelphia Fed WP

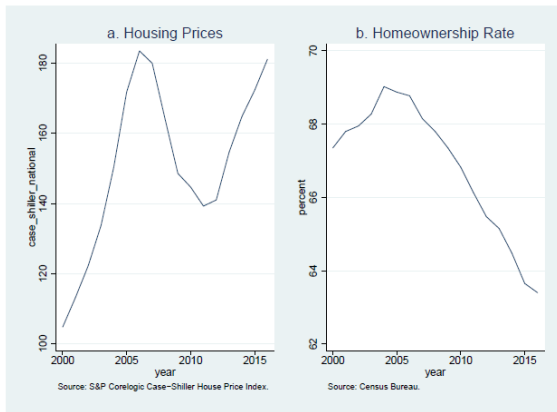


Figure 1: U.S. Residential House Price and Homeownership Rate

Discussion: Housing Recovery Is All About Institutional Investors!

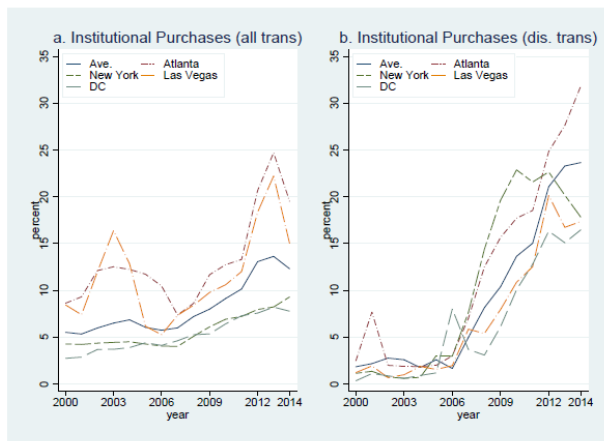


Figure 4: **Institutional Investor Purchase Activities.** This figure depicts institutional investor buying of single family homes in the 20 MSAs covered by S&P CoreLogic Case-Shiller 20-City Home Price Index on average and for four selected MSAs. Distressed transactions refer to foreclosure sales. We omit the chart for regular nondistressed sales because the shares resemble closely those in panel a.

Conclusion

- Interesting research agenda: lots can and need to be done, more thoughts need to be put into theory
- More importantly, can we have a more comprehensive theory that would also explain the housing recovery?