Discussion of “Consumption and House Prices in the Great Recession” by Kaplan, Mitman and Violante

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NER EFG: July 2016
1. What explains the recent boom/bust episode in house prices?
   ▶ **Answer:** belief shocks important; financial liberalization less so

2. Did HAMP and HARP stabilize the economy?
   ▶ **Answer:** big effects on foreclosures, little effect on house prices and consumption

3. How much of aggregate consumption changes were caused by boom/bust in housing prices?
   ▶ **Answer:** about half
Methodology

- Ambitious exercise with serious quantitative model

- Overlapping generations model with heterogenous agents, multiple aggregate shocks and endogenous house prices

- What’s new? Takes seriously important features of housing market:
  1. Combine housing features previously studied separately: long term mortgage debt, default, HELOCs and rental market
  2. Belief shocks are news shocks about future tastes for housing
  3. Nice connection with cross-sectional empirical results
OUTLINE OF TALK

▶ What drove boom/bust in house prices?
  ▶ What do we know from previous lit?
  ▶ Which assumptions matter?
  ▶ Interpretation

▶ Do housing prices affect consumption?
  ▶ Empirical evidence
  ▶ What do we learn from this quantitative approach?

▶ Next steps
What drove boom/bust in housing prices?

- What are the candidate “shocks”?
  1. Changes in income
  2. Changes in financial conditions
  3. Changes in beliefs
  4. Changes in interest rates

- KMV explore first three primarily
  - belief shocks not financial conditions chief driver

- Huge and growing literature
Conflicting Views

- interest rate shocks

- collateral constraints

- credit supply
  - Justiniano, Primiceri and Tambalotti (2015)

- expectation shocks
Existing papers debate effect of LTV on prices

Consider a relaxation of LTV constraints

Small price effects
  - Housing supply very elastic
  - Easy to convert rentals to owner-occupied stock

Big price effects
  - No rental option and many households constrained
  - Segmented housing markets or inelastic supply
  - There is also a decline in interest rates

KMV modeling choices put them in small effects camp
Collateral Channel

▸ KMV model financial liberalization as a relaxation of LTVs + lowering of HELOC and origination costs

▸ These are shocks to mortgage credit demand
  ▸ But this means we should have seen interest rates increase (Justiniano, Primiceri and Tambalotti, 2015)

▸ Suggests increases in credit supply also important
  ▸ Financial flows from China
  ▸ Evidence on subprime loans (Mian and Sufi, 2009)

▸ Question 1: Perhaps important to allow for an endogenous interest rate or shock to credit supply
  ▸ Will make your financial liberalization shock more realistic
  ▸ Existing lit suggests complementarities with LTV relaxations and interest rate declines
IMPORTANCE OF RENTAL MARKETS

▶ KMV are right that modeling rental markets is crucial
  ▶ Only 66% own

▶ Important for understanding consumption responses
  ▶ Most constrained choose to rent
  ▶ \implies less responsiveness to LTV constraints
  ▶ \implies smaller MPCs to shocks
CONSUMPTION ELASTICITY TO HOUSE PRICES

- Results from Berger, Guerrieri, Lorenzoni and Vavra (2015)
Rental Markets

- KMV find little spillovers from foreclosures to house prices
  - Seems at odds with empirical evidence in Campbell, Giglio and Pathak (2011)

- They assume partially segmented housing and rental stock

- Consider defaulting households
  - Most are young and in small homes because of upward sloping income profile and curvature in utility function
  - They become renters and rental companies buy the foreclosed homes
  - These households then choose to rent "same" home
  - Little shift in housing demand
  - $\implies$ little effect on prices
Blackstone-Owned Homes in Charlotte, North Carolina

Source: US Census Bureau: 2011 ACS Data, Mecklenburg County Land Records

Legend
- Blackstone-Owned Property
- Local Streets

Median Household Income
- $13,001 - $41,000
- $41,001 - $65,000
- $65,001 - $100,000
- $100,001 - $218,324

Maps Prepared by Anthony Giancartano, Data Collected by Symone New
SEGMENTATION SEEMS TO BE IMPORTANT

- Guren and McQuade (2016):
  - Use ACS microdata to show owners move into smaller rentals
  - \( \implies \) fall in housing demand

- Landvoigt, Piazzesi and Schneider (2015):
  - Lots of quality segments (different markets)
  - Difference in house price growth in low vs. high quality areas

- Importance of endogenous liquidity constraints
  - When LTVs tighten less possible to refinance or extract equity
  - Only option is to sell
  - more inventory overhang, time to sell increases, prices fall and foreclosures increase
**Policy conclusions**

- **Question 2:** Model has big implications for policy. How seriously should we take the recommendations?

- Policy experiment in model: what is the effect of HAMP
  - Large effect on foreclosure rates
  - Very small effect on house prices

- Agarwal et. al (2016) found:
  - Similar qualitative effects: HAMP lowered the rate of foreclosures and increased house prices
  - But different relative effects: in data, foreclosure effect 3 times bigger than price effect; in model multiple is much higher

- Go farther! be like Kaplan and Violante (2014) and match well-identified micro studies directly
Expectations

- **Comment 3:** Changes in house price expectations seem important in both data and in models

- Whose beliefs?
  - Paper does a great job exploring which agent’s beliefs matter
  - Acts as endogenous credit supply shock

- About what?
  - Could be either about supply or demand

- More work should be done to understand the formation and propagation of beliefs
EXPECTATIONS

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CONSUMPTION AND HOUSE PRICES

- What is the effect of house prices on consumption?

- Two approaches:

1. What explains the correlation in consumption and house prices
   - Useful for understanding which structural shocks are most important in explaining joint dynamics of C and HP in GE

2. What is the causal effect of a change in house prices on consumption and through what channels?
   - Are housing prices important to pay attention to?
   - Do house price changes cause propagation?
Consumption and House Prices

- Large empirical literature focusing on identification, trying to measure causal effect

- KMV speaks to correlations between house prices and $C$ but not causal effect of house prices on $C$

- Why?
  - Structural shocks move house prices but also directly move $C$
  - Hard to then tell what $C$ movements come from including housing in model and what come directly from shocks

- KVM: house prices very useful for identifying structural shocks. But should we also care about their direct causal effect on $C$?

- BGLV (2015) argue yes
  - Sufficient statistic for causal effect
  - Realistic calibrations $\implies$ large value, in line with empirical lit
Consumption and house prices

- The two approaches are complementary

- KMV show:
  - House price shocks explain around 1/2 the movements in consumption
  - That our formula works well in their model because belief shocks chief driver
    - These shocks have little direct effect on C, only the effects which work through house prices

- Comment 4:
  - KMV explain which structural shocks most important
  - BGLV explain why consumption responded so much
Next steps

- Evolving view that housing is central to the monetary transmission mechanism

- Also, lots of evidence of evidence people fail to refinance optimally (Keys, Pope and Pope, 2014)

- A model with the features you have: long-term mortgage debt, refinancing, default and HELOCs can speak to these issues!

- Would be great to match moments from these micro studies
Conclusion

- Important question and impressive paper

- We learn something about what structural shocks are needed to explain the data
  - Am convinced beliefs are important driver of housing prices
  - Also think financial shocks are important
  - Matching cross-sectional facts is potentially helpful

- More work needs to be done before fully believing policy conclusions
  - Market segmentation and search frictions may be important
  - Love the connection with micro data but go further!
Thanks!