# Discussion of Mortgage Defaults by Hatchondo, Martinez, and Sanchez

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Recent Developments in Consumer Credit and Payments

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#### **Summary**

- Construct a macro model of equilibrium mortgage defaults.
  - Life-cycle model.
  - Individual house price and income shocks.
  - Can choose how much down payment to put.
  - Mortgage interest rates reflect default risk.
- Ompare two policies for foreclosure/default prevention.
  - Minimum down payment requirement.
  - Allowing mortgage lenders to garnish future income upon default.
  - Equally effective in preventing foreclosures.
  - However, different welfare implications.
- Analyze the role of housing/mortgages in consumption smoothing.

### **Experiments 1: Comparing Foreclosure Prevention Policies**

- lacktriangle Same effect on # of defaults, but different welfare implications.
- ② Minimum down payment requirement  $(0\% \rightarrow 15\%)$ .
  - Defaults down by 30%.
  - Harder to buy: renters and future generations suffer.
  - Cheaper to borrow: current homeowners benefit (entitlement effect).
- **③** Allow mortgage lenders to garnish future income upon default  $(0\% \rightarrow \text{above } 143\% \text{ of } \overline{c}).$ 
  - Defaults down by 30%.
  - Cheaper to borrow: renters and future generations benefit.
  - Cheaper to borrow: current homeowners benefit.

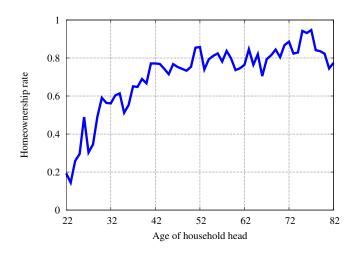
# **Experiments 2: Consumption Smoothing w Housing/Mortgage**

- BPP (Brundell-Pistaferri-Preston) insurance coefficient.
- Omparing with standard Huggett model used by Kaplan-Violante.
- Finding 1: Housing/mortgage doesn't improve consumption smoothing.
  - Housing/mortgage only adds moderately relaxed borrowing limit.
  - Is it a good model of housing?
  - No moving up/down.
  - No consumption of housing services.
- Finding 2: House price shocks don't move consumption.
  - Because consumers cannot cash-in by assumption.
  - No moving up/down.
  - Individual house price shocks work like aggregate shocks.

#### Is It a Good Quantitative Model of Mortgage Defaults?

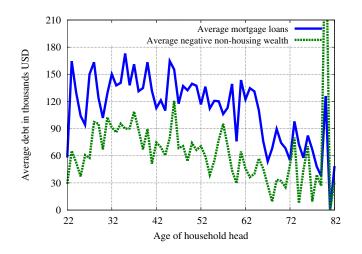
- Complicated long-term contract: Why?
  - Why not a simple short-term contract like in Jeske-Krueger-Mitman?
  - ullet Consumers refinance frequently o Not really long-term.
- 4 Homeownership in retirement.
- Model-consistent definition of mortgage debt.
- Debt over the life-cycle.
- Defaults over the life-cycle.

#### **Homeownership Rate**



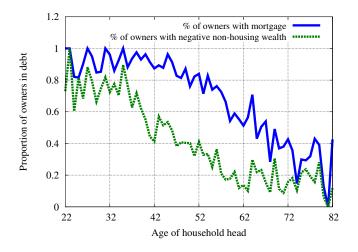
- Homeownership rate does not drop after retirement.
- Orops sharply in the model.
- Easy fix: bequest motive.

# Mortgage in Model is Different from Mortgage that You Know



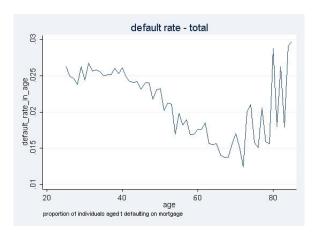
- Need to be careful with the model definition of debt.
- ② Definition of down payment as well (Figure 1).
- Refinancing is more frequent. What is down payment?

### **Proportion with Mortgage Debt among Homeowners**



 Typical life-cycle model cannot generate the shape. Too much concentration of debt among young.

### Mortgage Default Rate



- Flat until age 40, steadily declining after that.
- ② Typical life-cycle models with defaults cannot replicate this shape.
- Also: who are defaulting? Income , house price, or other shock?

#### This Time Is Different?

- Model is calibrated to the "normal" environment.
- Are the findings valid in the current situation?
  - Large drop in aggregate house prices.
  - Larger income shocks.

#### **Misc Comments**

- If house price is endogenized, need to have different house sizes, and equilibrium transition analysis.
- Realistic costs of foreclosure/default in the model?
  - Forced to sell the house.
  - Remain a renter for a year.
- Solved with discrete state space. Quantitative results robust? (e.g. Authors' previous work)