Discussion of Mortgage Defaults by Hatchondo, Martinez, and Sanchez

Makoto Nakajima

FRB Philadelphia

Recent Developments in Consumer Credit and Payments

September 23, 2011
1 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.

2 Compare 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.

3 Analyze the role of housing/mortgages in consumption smoothing.
Experiments 1: Comparing Foreclosure Prevention Policies

1. Same effect on # of defaults, but different welfare implications.

2. Minimum down payment requirement (0% → 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% → above 143% 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

1. BPP (Brundell-Pistaferri-Preston) insurance coefficient.

2. Comparing with standard Huggett model used by Kaplan-Violante.

3. 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.

4. 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.
1 Complicated long-term contract: Why?
   - Why not a simple short-term contract like in Jeske-Krueger-Mitman?
   - Consumers refinance frequently → Not really long-term.

2 Homeownership in retirement.

3 Model-consistent definition of mortgage debt.

4 Debt over the life-cycle.

5 Defaults over the life-cycle.
1. Homeownership rate does not drop after retirement.
2. Drops sharply in the model.
3. Easy fix: bequest motive.
Mortgage in Model is Different from Mortgage that You Know

1. Need to be careful with the model definition of debt.
2. Definition of down payment as well (Figure 1).
3. Refinancing is more frequent. What is down payment?
Typical life-cycle model cannot generate the shape. Too much concentration of debt among young.
1. Flat until age 40, steadily declining after that.
2. Typical life-cycle models with defaults cannot replicate this shape.
3. Also: who are defaulting? Income, house price, or other shock?
1. Model is calibrated to the “normal” environment.

2. Are the findings valid in the current situation?
   - Large drop in aggregate house prices.
   - Larger income shocks.
1. If house price is endogenized, need to have different house sizes, and equilibrium transition analysis.

2. Realistic costs of foreclosure/default in the model?
   - Forced to sell the house.
   - Remain a renter for a year.

3. Solved with discrete state space. Quantitative results robust? (e.g. Authors’ previous work)