Discussion of
Winners and Losers in Housing Markets
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Plan

1. Overview.

2. Review of the model.

3. Review of experiments.

4. Discussion of main findings.

1. Question:
   - What generates housing price fluctuations and, what are the welfare consequences for different groups of households?

2. Construct:
   - Quantitative general equilibrium life-cycle model with housing

3. Study:
   - Effect of one-time unexpected shock on housing prices
   - Distributional implications of housing price changes

Review of the Model

Elements standard in macro models of housing

1. Dual role of housing
2. Life-cycle (Stochastic aging)
3. Higher utility of owning rather than renting
4. Downpayment requirement
5. General equilibrium

Elements novel in their model

1. Housing is "Structure" = Capital$^{\gamma}$ Land$^{1-\gamma}$ (Fixed supply)
2. Solving transition (perfect foresight dynamics)

Elements not in their model

1. Idiosyncratic shocks (income, family composition)
2. Lumpy adjustment
3. Size difference of rental and owned housing
4. Risk of assets

Review of the Experiments

1. Calibrate the model to the recent U.S. economy.

2. Steady state comparison:
   1. Change g_a, R, θ

3. Transition dynamics after the initial unexpected shocks
   1. Change g_a, R
   2. Both high and low γ

Main finding 1

When land share in the value of structures is large (e.g. Metropolitan area, Japan), housing prices respond more sharply to shocks.

- Higher land share implies a lower supply elasticity of structures (housings).

- Consistent with cross-country or cross-states data?

Discussion: Main Findings

Main finding 2

Combination of $\uparrow g_a$ and $\downarrow R$ has a potential to explain the observed large increase in housing prices.

- Also generates $\downarrow$ in homeownership rate.
    - Not consistent with U.S. (and other countries') experience.
    - Potential remedies:
        - $\downarrow$ Downpayment ratio
        - $\downarrow$ Cost of mortgage loans
        - $\uparrow$ Variety of mortgage loans
- $\downarrow$ housing price in closed economy.
    - Need to pin down the degree of "openness".

Main finding 3

Downpayment ratio affects homeownership rate, but does't affect the housing prices.

- The effect of a change in downpayment requirement differs depending on assumptions associated with housing.

Effect of ↓ downpayment ratio	Homeownership rate	Housing price
Current paper	↑	No
No rental market	NA	↑
Life-cycle without income shock	↑	No
With income shocks	↑	No
Ortalo-Magné and Rady (2006)	↑	↑
Chambers et al. (2008)	No	NA

Discussion: Model with Life-Cycle and Income Shocks

Experiments	TFP $+1\%$		$\theta : 30\% \rightarrow 20\%$	
Economy	No shock	With shocks	No Shock	With shocks
House price	$+1.2\%$	$+1.3\%$	$-$	-0.1%
Homeownership	$-$	$-$	$+4.4\%$	$+4.1\%$
Output	$+1.2\%$	$+1.3\%$	$-$	$-$

1. Model with:
    1. General equilibrium
    2. Fixed supply of housing capital
    3. Life-cycle (Deterministic)
    4. Uninsured idiosyncratic income shocks (Permanent and transitory)

2. Findings:
    1. Income shock doesn't matter.
    2. $\uparrow$ TFP level raises housing prices.

Discussion: Main Findings

Main finding 4

When housing prices increase, large redistribution from renters to owners.

- Intuitive but very nice that they can actually quantify the magnitude of the redistribution effect.

- Large redistribution effect between renters and owners is partly due to ↓ homeownership rate.

- With a large degree of income (and wealth) inequality, possibly interesting non-linear welfare effect.

Discussion: Beautiful Things to Do with the Model

1. Cross-section of states or countries.
   - Captures difference in γ
   - Consistent with cross-sectional differences in housing price volatility?

2. Fully dynamic transition path.
   - Use dynamic path of g_a, R, θ as inputs
   - Generate dynamic path of housing prices, homeownership rate, etc.

Chambers, Matthew, Carlos Garriga, and Don E. Schlagenhauf, "Accounting for Changes in the Homeownership Rate," 2008. forthcoming, International Economic Review.

Ortalo-Magné and Sven Rady, "Housing Market Dynamics: On the Constribution of Income Shocks and Credit Constraints," *Review of Economic Studies*, 2006, *73*, 459–485.