Discussion of

“Mortgage Loans, the Decline of the Housing Saving Rate and the Increase in Risk Sharing”

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- Decline in savings rate (increase in consumption share of income)
- Increase in mortgage debt to income ratio
- Increase in home ownership rate
- Improvement in risk sharing(?)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1980</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>c/y</td>
<td>87.7%</td>
<td>93.2%</td>
</tr>
<tr>
<td>d/y</td>
<td>123%</td>
<td>160%</td>
</tr>
<tr>
<td>hor</td>
<td>64%</td>
<td>69%</td>
</tr>
<tr>
<td>$\sigma_c$</td>
<td>???</td>
<td>down (!?)</td>
</tr>
</tbody>
</table>
This Paper

• Builds a quantitative OLG model with housing tenure and mortgage choice

• Quantifies the effects on $s, d/y, hor, \sigma_c$ of two specific innovations in mortgage markets

  1. Introduction of “home equity line of credit”

  2. Relaxation of down payment constraint

• Innovations in mortgage market (especially 1.) account for substantial part of $\Delta s, d/y, hor, \sigma_c$
Key Model Ingredients

- Preferences

\[
\begin{align*}
    u(c, h^s) & \\
    h^s &= 1_h h + (1 - 1_h) f
\end{align*}
\]

- Housing frictions

\[
\begin{align*}
    d' & \leq (1 - \phi_1) h' \\
    tr(h, h) &= \tau_s h + \tau_b h' \\
    h' & \geq h
\end{align*}
\]
Key Model Ingredients

• Why do people own? User cost of owning smaller than rent: \( r + \delta_o < r + \delta_r \)

• 1980’s mortgage regime imposes additional restriction \( R \) of constant mortgage repayment over contract length \( T \)

\[
\begin{align*}
    d' &= (1 + r)d - m \\
    \text{where } m &= \frac{(1 - \phi_1)h_0r}{\left[1 - (1 + r)^{-T}\right]}
\end{align*}
\]
Thought Experiments

- Comparison of steady states, holding interest rates and house prices fixed (by appropriate assumptions)
  - Lower $\phi_1$
  - Removal of restriction $R$

- Both changes expand choice set of household and weaken frictions in housing market.
Results

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th></th>
<th>2000</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model</td>
<td>Data</td>
<td>Model</td>
<td>$\phi_{1980}$</td>
</tr>
<tr>
<td>$c/y$</td>
<td>92.6%</td>
<td>87.7%</td>
<td>94.9%</td>
<td>93.8%</td>
</tr>
<tr>
<td>$d/y$</td>
<td>26%</td>
<td>123%</td>
<td>56%</td>
<td>47%</td>
</tr>
<tr>
<td>$hor$</td>
<td>64%</td>
<td>64%</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>$\sigma_c$</td>
<td>0.608</td>
<td>???</td>
<td>0.593</td>
<td>0.594</td>
</tr>
</tbody>
</table>

- Blundell et al. (AER 2008) “We find little evidence that the degree of [consumption] insurance with respect to [earnings] shocks of different durability changes over this period [Late 70s to early 90’s]”
Main Comments I

- Missing transition: perhaps overstating magnitudes

- Partial equilibrium 1 (call it small open economy): massive expansion of credit without adjustment in interest rates: perhaps overstating magnitudes.

- Partial equilibrium 2 (call it perfectly elastic supply of houses): increased demand for owner-occupied houses (and falling demand for rentals) without adjustment of house prices.
Main Comments II: What is missing?

- Changes in house prices
- Changes in interest rates
- Changes in productivity growth
- Changes in demographics

- Really need to hope: no interaction of these changes with mortgage innovation. Note: not clear which way the bias goes. Need quantitative analysis to assess this.
Figure 1: Alternative Home Price Indexes (Inflation-Adjusted)

Note: Logarithmic scale, 2000:Q1 = 1.00
Figure 4: Non-Farm Productivity
(HP-smoothed, relative to linear trend)

Figure 5: Inflation-Adjusted Land Prices
(relative to linear trend)

Note: Both series are in logarithms. The land series are from different vintages of BLS data.