

Discussion of “Housing Bubble” by Oscar J. Arce and J. David López-Salido

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This paper provides a theoretical framework on housing bubbles

- as an equilibrium where housing serves as a **storage of wealth** (for some agents) in the presence of asset shortage.
- shows the emergence of housing bubbles is closely linked to **financial frictions** and **rental market frictions**.

What Make Housing Like “Fiat Money” as in a 2-Period Endowment Economy?

- missing “intergenerational” markets in the 3-period OLG framework
- frictional rental markets \implies the young as homeowners and debtors
- collateral constraint
 - limits contractibility between the middle-aged and the young, thus reducing the aggregate demand for borrowings);

- reduces housing price below the discounted value of rent ($p < \frac{d(1+r)}{r}$); thus under a sufficiently tight credit constraint, the resource constraint is satisfied even if housing is still valuable to the young;
 - makes it possible that multiple steady states (especially those with high housing valuation) exist.
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- Agents do not value housing services when old, making housing intrinsically a useless asset by then.

Summary of Key Model Features

- If all young agents (borrowers) are financially constrained, aggregate savings are **decreasing** in the interest rate.
 - A decrease in the interest rate increases the net worth of the middle-aged, since it has no effect on the amount of mortgage debt.
- Both housing prices and price-rent ratios are higher in a HVSS or bubble economies than in a LVSS.
- Bubbles are larger in size and less fragile in economies with **tighter** credit constraints.

- Welfare Implications of Bubbles (at Steady State)
 - Housing bubbles **reduce** welfare relative to pure asset bubbles.
 - Bubbles amplify welfare inequality.
 - Rental market frictions cause more aggregate welfare loss for bubble economies than for a LVSS.

What about the implications of a burst of pure asset bubbles or housing bubbles for aggregate welfare and that of different transitional cohorts?

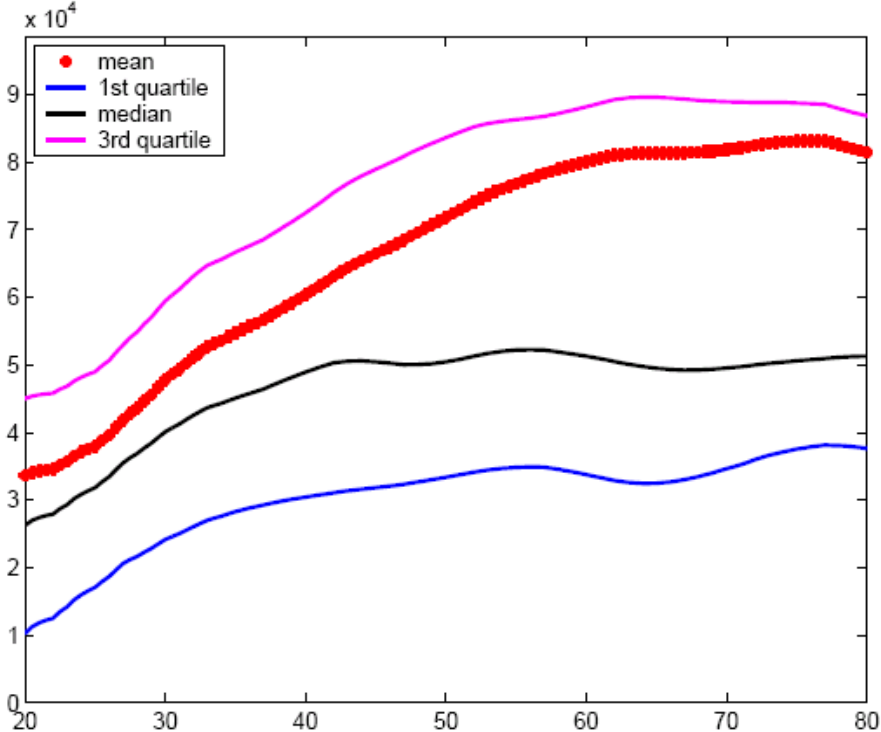
General Comments

- Very promising framework to understand housing bubbles in emerging countries, such as recent experience in China and that in Japan in the late 1980s.
- May help to explain the rising U.S. housing prices (as a bubble) following the stock market crash since 2001.
 - The observed reduced corporate investment demand since the stock market crash in 2001 might contribute to the “excess” supply of liquidity, and therefore housing bubbles.
- Useful model to explore the welfare implications of booms and busts in housing prices and the policy implications.

Comment 1: missing elements that might be important!

Factors discouraging (domestic) savings in financial assets

- Social security
- International financial markets
- Housing might be useful assets also for the old (due to missing reverse mortgage markets, bequest motives, etc.).



Age profile of Housing Stock per Adult-Equivalent (from Figure 6 of Yang, 2008)

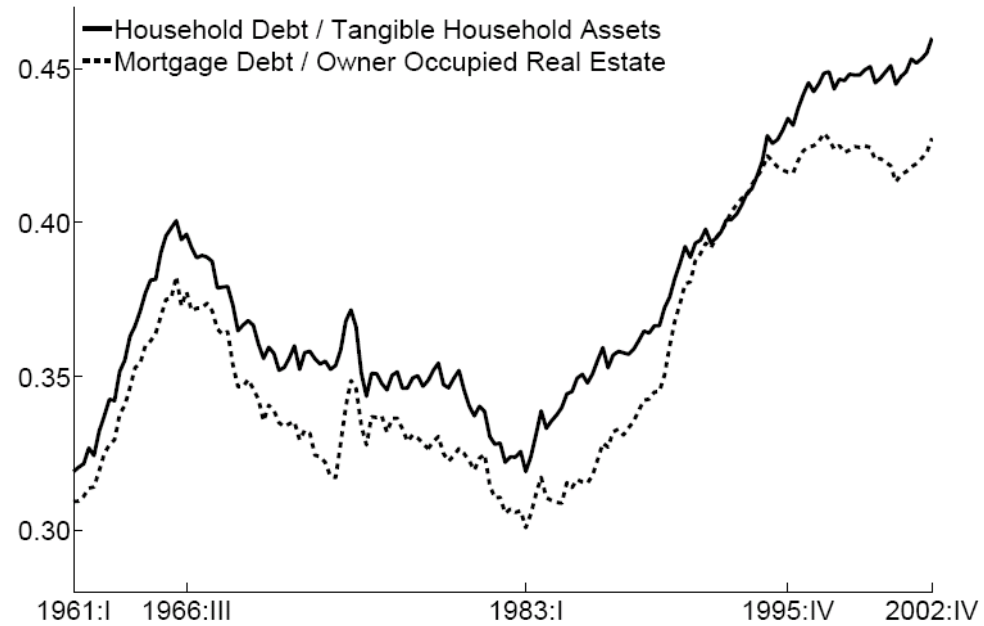
Factors encouraging demand for credit

- Uninsurable labor income risks
 - Question: what if the model is extended to more periods and allow for idiosyncratic labor income risks, so that the pool of market participants expands?

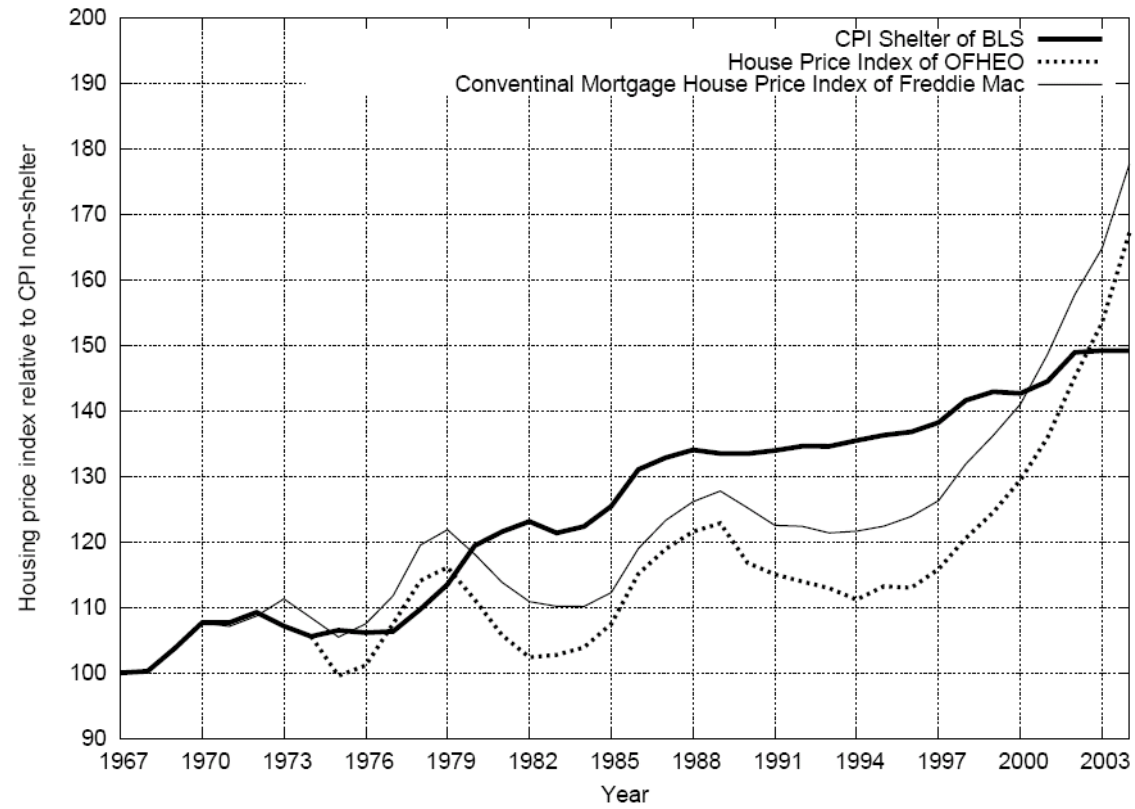
It is desirable to construct and calibrate a large-scale OLG economy that incorporates the above elements and test the quantitative importance of the mechanism described here for the creation of housing bubbles.

Comment 2: testing the mechanisms

- the relationship between the tightness of collateral constraints and housing prices
 - In the model, a looser credit constraint (lower θ) delivers a higher housing price in a HVSS.

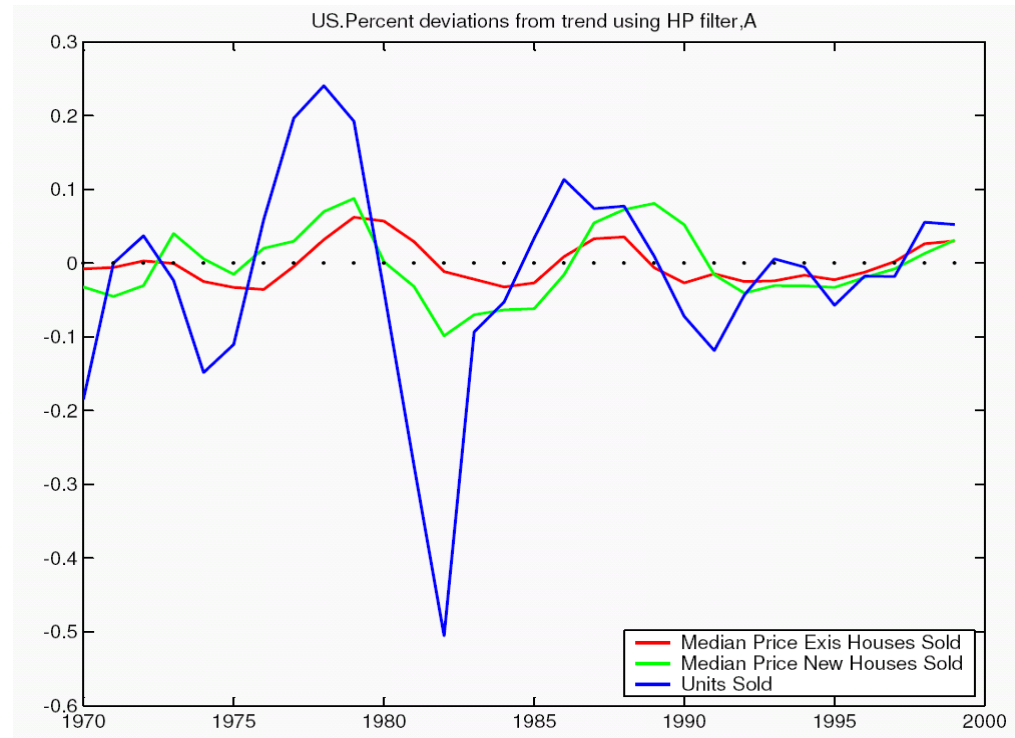


Ratio of Mortgage Debt to Housing Value in the U.S. (from Table 1 of Campbell and Hercowitz, 2005)



Housing Price Index in the U.S. (Figure 1 from Nakajima, 2005)

- the cyclical nature of housing prices



Cyclical Component of Housing Prices in the U.S. (from Rios-Rull and Sánchez-Marcos, 2007)

- the positive (negative) correlation between price-rent ratio and renter ratio (housing ownership ratio)



Correlation between Price-Rent Ratio and Home Ownership Ratio in the U.S.
(From Figure 1 of Kim, 2008)

Conclusion

- Needed: a theoretical framework to understand the booms and busts in housing prices and their welfare implications.
- **This paper takes a valuable step towards this direction!**
- The remaining question is the empirical relevancy of the theory provided here.
- To this end, I would put the mechanisms to test in a calibrated version of the model and see how it does to match the observed episodes of booms and busts in housing prices.