Discussion of “Housing and Macroeconomics”

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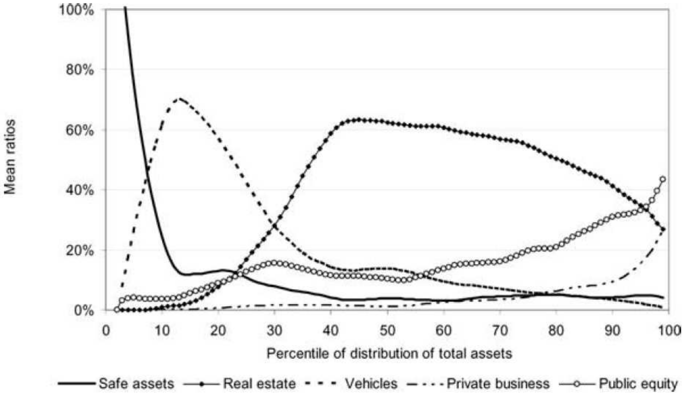
This Chapter

- Housing and the aggregate economy:
  - Housing is important for consumption / investment.
  - housing finance can be a cause of aggregate fluctuations.
- Asset pricing implications of housing market:
  - housing can explain part of the equity premium.
    - composition risk
    - idiosyncratic housing risk
- Heterogeneous households:
  - Heterogeneity is very important to rationalize facts in micro data.
  - Each house is priced by its marginal investor.
- Transaction costs:
  - endogenous sorting into home-ownership and the choice of leverage.

Summary of the discussion

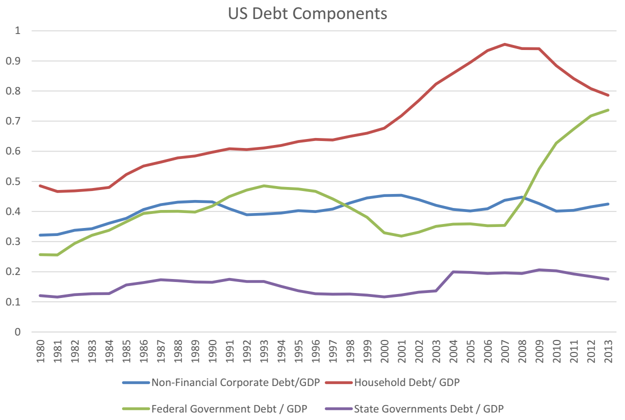
- Some additional facts
  - especially on the finance side of housing
- Heterogeneity is even more important for understanding the movements in the aggregate.
- Housing as a transmission channel of monetary policy
- Financial shocks and the aggregate economy
- Volatility puzle
- Transaction costs and consumption

Housing is the main asset of the “middle class”



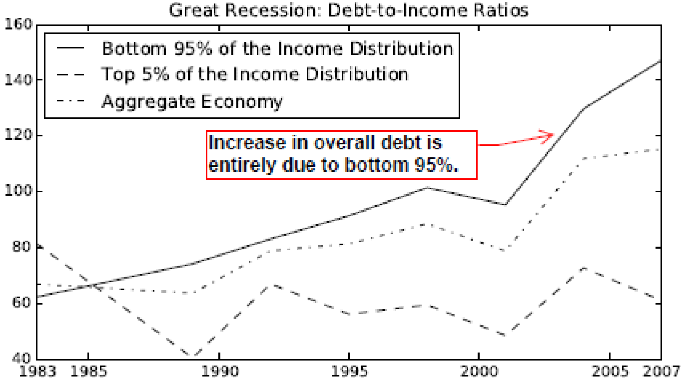
- Important Asset Pricing Implications.
- Even more important for Macro
  - Heterogeneous MPC ⇒Higher MPC for Housing Wealth

Mortgage debt is the largest component of private debt in the US



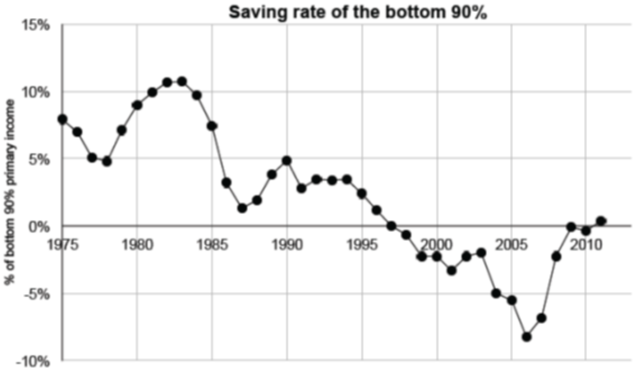
(corporate debt seems boring. no change in the last 30 years)

Who borrowed this debt?



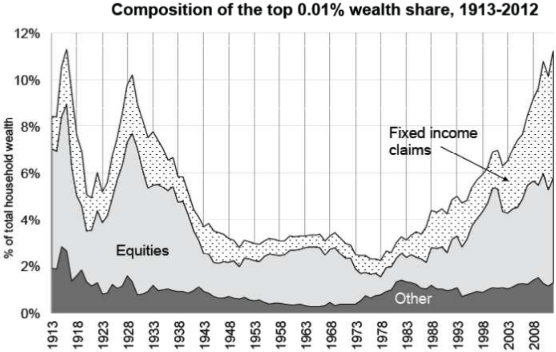
(from Kumhof, Ranciere and Winant (2015). Source: SCF)

Who financed this debt?



- Definitely not the bottom 90%.

The importance of top 0.01%



- Top 0.01% account for about half of the increase in total fixed assets holding. (Saez and Zuckman 2014)
- And another one third of it came from foreigners.

Importance of housing as a transmission channel of Monetary Policy

From the asset side:

- MPC out of housing wealth is much larger than MPC out of stock market wealth or private business wealth.
- Any effect of monetary policy on asset prices has significant consumption implications.

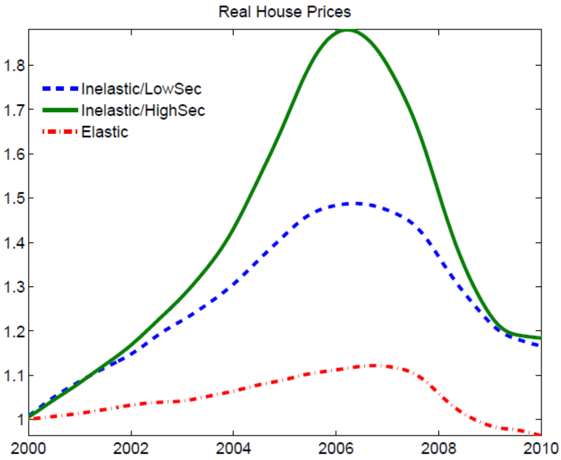
From the liability side:

- Mortgage debt is the largest component of private debt.
- The borrowers have the highest MPC (bottom 90%)
  - Borrowers consumption is very sensitive to changes in their monthly payment. (Di Maggio, Kermani and Ramcharan 2014)
- The lenders have the lowest MPC (top 0.01% and foreigners).
- The importance of the redistribution channel.

Heterogeneity and the collateral constraint

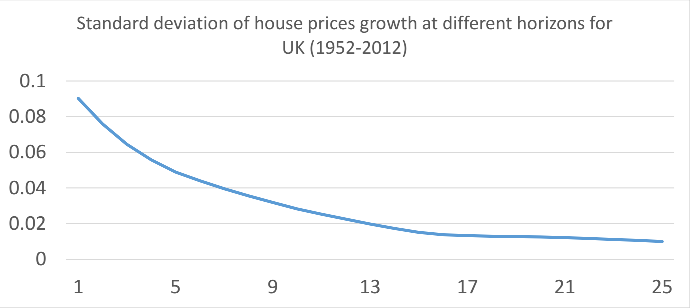
- From the facts on borrowers and lenders in the housing market, it is as if constrained agents and unconstrained agents are living in separate islands.
- The importance of shocks to maximum LTV (ϕ) depends crucially on the difference between the discount rate (or in general EIS) of borrowers and the discount rate of the lenders.
- It is mainly about the interaction of cheap credit and the availability of the credit.
  - cheap credit does not increase borrowers consumption or demand for housing unless it becomes available for them.
  - relaxed borrowing constraints does not induce large movements in prices and demand if it is not relatively "cheap".
- The 2000-2010 boom-bust needed both the Fed and Wall Street.

Capital gains across cities vs within Cities



- Even city level house prices goes a long way in capturing most of the heterogeneity in capital gains.

How risky are long run house prices?



(Annual house price growth rate from t to $t+T$ $(=\frac{ln(hpi_{t+T}/hpi_t)}{T})$ for different values of T (similar to Cochrane 1988).)

- Booms are almost always followed by busts.
- Even without any transaction cost, housing is not good for short term investors.
- The volatility puzzle is about short term movements.

Land share and the volatility puzzle

- If the relation between land share and price fluctuations is not linear in land share, assuming the average land share in the production function can significantly underestimate the aggregate volatility in house prices.
- Existing panel data on land share and house prices is consistent with strong complementarity ($\sigma = 0.5$) between land and structure. (As house prices goes up, land share goes up)
  - Complementarity between land share and structure can also increase volatility in the house prices.

Transactions costs and Consumption

- Transaction cost is not only important for house prices.
- Selling a home involves some 5% transaction cost. Houses are illiquid.
- getting/ refinancing a mortgage cost at least $2k. Mortgages are also illiquid.
- These make households Wealthy Hand-to-Mouth (Kaplan and Violante).
  - Wealthy hand-to-mouth consumers are very sensitive to cash flow shocks.
  - Wealthy hand-to-mouth households are even more sensitive to unemployment shocks if they don't have enough equity in their home.

Housing Expenditure and Stock Market Investment

- Aggregate time series data shows very persistence share of housing expenditure over time.
- However there is a lot of heterogeneity in the cross section:
  - Higher income households spend significantly less on housing. (going from 20% to 80% of income reduces the housing expenditure share by 8% (Notowidigdo 2013))
  - Urban areas and especially high cost areas spend a higher share on housing.
- The cross section variation and the implied composition risk may also explain some patterns in the portfolio allocation.

Conclusion

- Housing is at the heart of many macro questions.
  - Housing is the largest asset of majority of households.
  - Mortgage debt is the largest debt liability.
- Heterogeneity is very important not only to explain micro-facts but also to answer macro questions.
  - For some questions even assuming 2 types (for example wealthy-patient lenders vs. impatient borrowers or elastic vs. inelastic regions) can go a long way.