Discussion of "Changes in Buyer Composition and the Expansion of Credit During the Boom"

Amir Kermani
UC Berkeley

April 2015

This Paper

- Credit supply view of the crisis is wrong.
  - Because MS 2009 did it wrong.
- Credit expanded all throughout the income distribution.
  - Middle/ High income families had a much larger contribution.
- Majority of default comes from middle class. not the poor.
- Expansion of credit to poor was through the extensive margin not the intensive margin.

Summary of the discussion

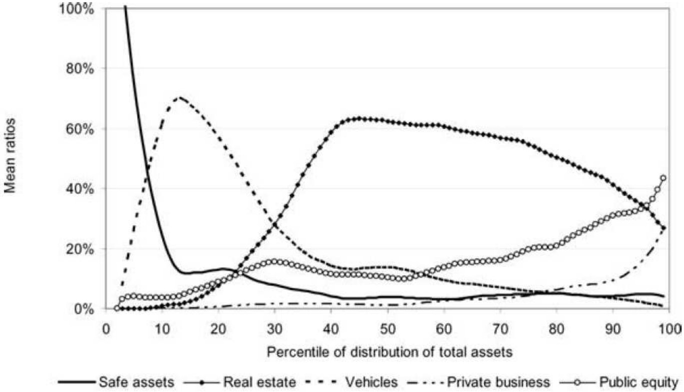
- Why do we care?
- Who is the marginal buyer?
- Who leveraged? Where leveraged?
- Methodology: local GE spillovers
- Defaults

Why do we care?

This is super important because:

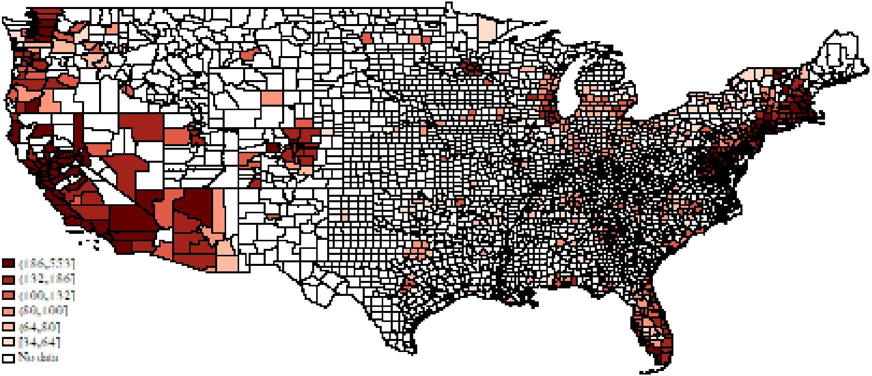
- If the problem was that banks relaxed their collateral requirements/ income requirements / ...
  then a better "banking regulation" could have prevented the crisis.
- If there was no change in the type of contracts offered by the banks, only some "macro-prudential" policies can help.
  - i.e. whenever the economy is too HOT, reduce the max LTV

Who is the marginal home buyer?



- Definitely not the bottom 20%.
- “poor” home buyer means on average in the 30th percentile of income distribution.

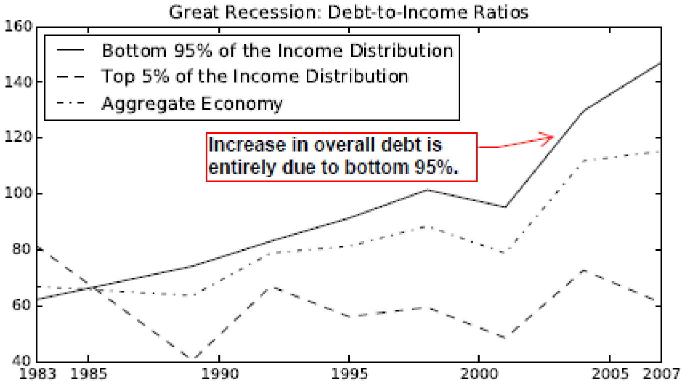
What about marginal buyer in the Bay?



- The map shows the bottom tier house prices as of 2005.
- The annual income of a marginal buyer in the Bay is:

$$\$400k \times 6\% \times 3 = \$72k$$

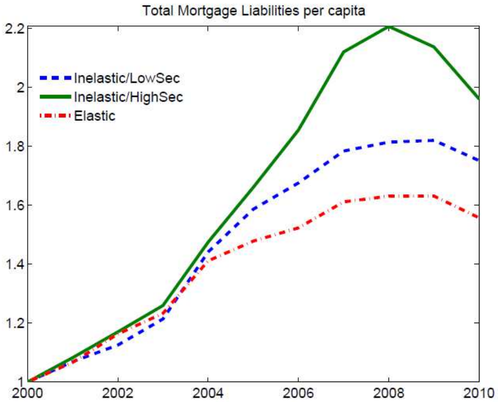
Who leveraged?



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

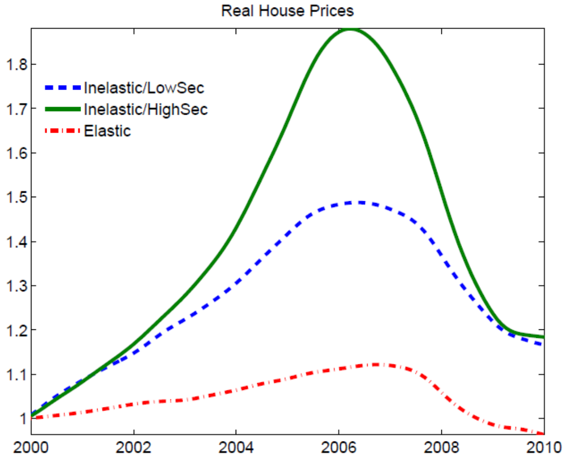
- If we forget about the geography, it seems that all the way to 95% of income leveraged up.

Where leveraged?

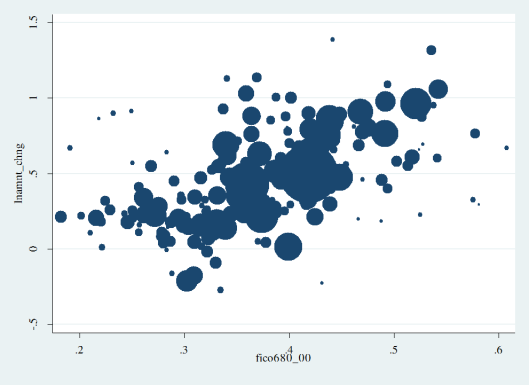


- All the calculations are at the county level. No gentrification.
- From 2003 afterward something put different regions on a very different trend.

The very same regions experienced a large boom and bust in house prices (and consumption)



Loan Amounts Increase and the Fraction of Subprime Borrowers

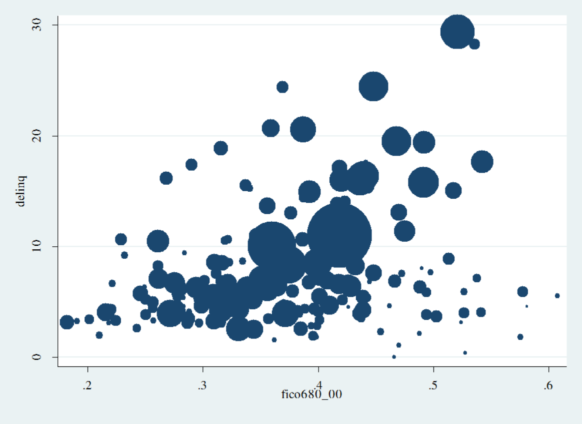


- Within inelastic regions, fraction of subprime borrowers explains 40% (i.e R2=40%) of the variation in the change in purchase loan amounts.

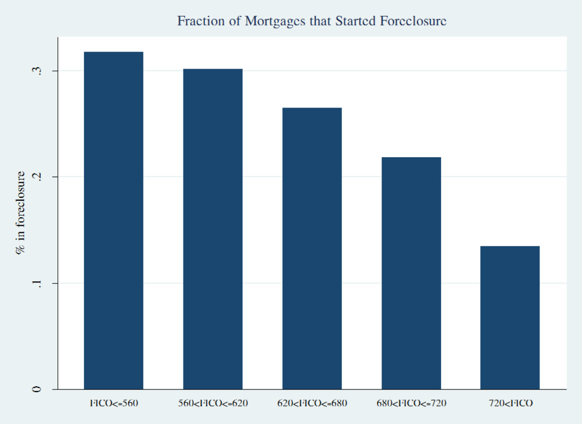
To Whom or To Where? That is the question.

- Why not to where? because of gentrification / change in the composition of buyers / ...
  - Almost all of this can be avoided by looking at variations at the county (or CZ) level instead of zipcode level.
- Why not to whom?
  - Relaxing the borrowing constraint of the constraint agent can change the price of homes for everyone mainly when the supply is inelastic.
    - House prices are determined by the marginal homebuyers (less than 10% of the market)
    - Also look at Landvoigt, Piazessi and Schneider (2015). You only need one guy in the chain to be constrained.
    - Every single homeowner can refinance and cash-out.
  - On the downturn, subprime homeowners default, house prices decline.
    - Of course, once house prices decline and people are underwater, the main determinant of default is unemployment shock. (Palmer 2014, Gerardi et al. 2014)
    - Again the main question is that why regions with higher fraction of subprime borrowers experienced much larger decline in house prices.

Default results



Default results



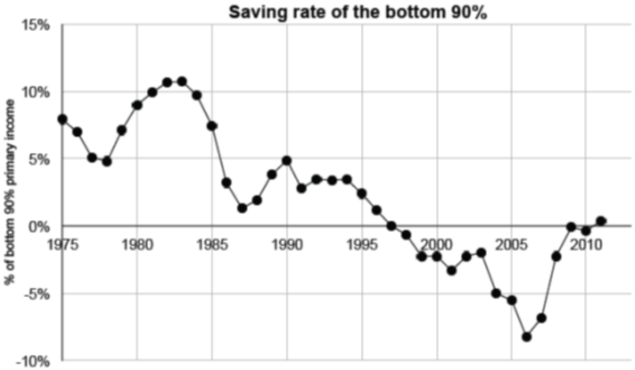
(Caveat: This is only Privately Securtizaed loans)

Total Loan Origination

Conclusion

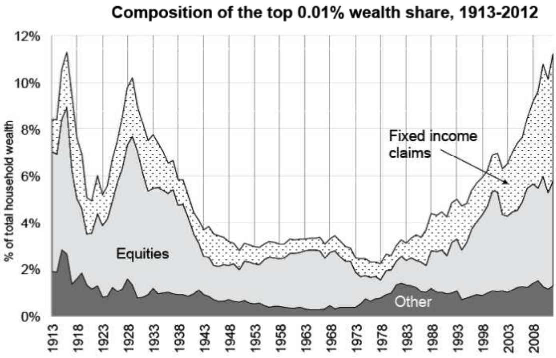
- The importance of identifying marginal buyer income in each region before showing any result on income and loan amounts.
  - My suggestion: $\textit{Marginal Buyer Income} =$ $(\textit{Bottom Tier House Price} \times \textit{FRM Interest Rate})/\textit{DTI}$
- To whom methodology, by itself, can be very misleading as it ignores all the local GE effects.
  - To where approach can be also very misleading if it requires very large GE effects. A calibration exercise can be very good "smell test".
  - Within inelastic regions, fraction of subprime borrowers predict most of the variation in the data.
- There is a huge gap between showing MS QJE 2009 is wrong and concluding the credit supply view is wrong.
  - (disclosure: we have some horses in the race including a paper titled "credit induced boom and bust" ;-))
- My view (Kermani 2012): It was a combination of the systemic risk (cheap credit/ optimism about future) and the relaxation of credit

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.