

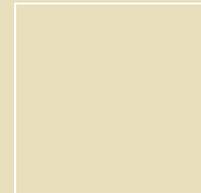
Discussions of

## **“Mortgage Choices and Housing Speculation”**

by Gadi Barlevy and Jonas D.M. Fisher

## **“\$1.25 Trillion is Still Real Money: Some Facts About the Effects of the Fed’s Mortgage Market Investments”**

by Andreas Fuster and Paul S. Willen

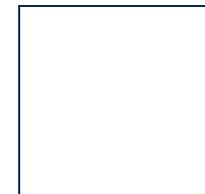


Ned Prescott\*  
FRS/FDIC Conference on  
“Mortgage Foreclosures and the Future of Housing Finance”  
October 25, 2010



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\*All views expressed in this discussion are those of the author and not necessarily those of the Federal Reserve Bank of Richmond or the Federal Reserve System



## Common Theme to Both Papers

- A mortgage is a complicated bundle of characteristics
  - FICO, Principal, Term, Timing of Payments, recourse, loan purpose, etc.
- Composition of mortgage characteristics matter
  - Barlevy and Fisher – house prices
  - Fuster and Willen – effects of LSAP MBS purchases by Fed
- Housing and mortgage aggregates hide a lot of important information





# Barlevy and Fisher

- Features of their model
  - Uncertain demand
  - Building constraints in some cities
  - Heterogeneous potential home buyers
    - Some value owning house more than others
  - Shocks to demand
  - Low ownership value people buy because if good shock continues they get appreciation, if good shock ends they default
    - Authors call this “Speculation”
    - This is a useful, non-pejorative definition





## Model (cont.)

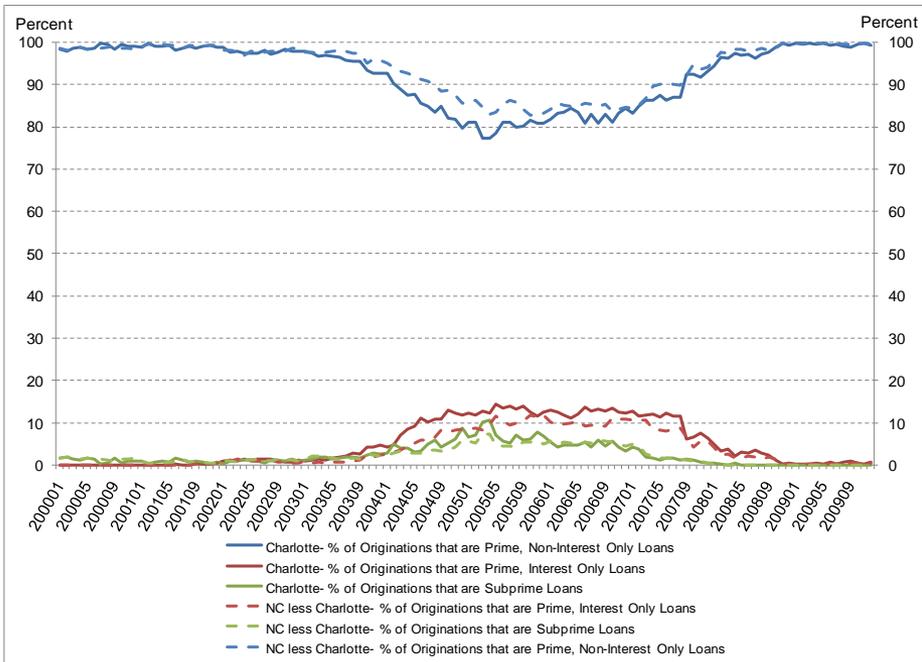
- So far, a Bayesian, rational expectations story of a boom and bust that is based on uncertain demand
  - Have had models like this for awhile
- Theoretical Innovation: Introduce mortgage characteristics
  - Backloaded payments, borrower and lender like in a boom
  - Encourages borrower to sell early, which gives some of the benefit of the capital gains to the lender
- Theory is still not fully developed (results somewhat dependent on parameterization), but gives good reasons for focusing on IO mortgages



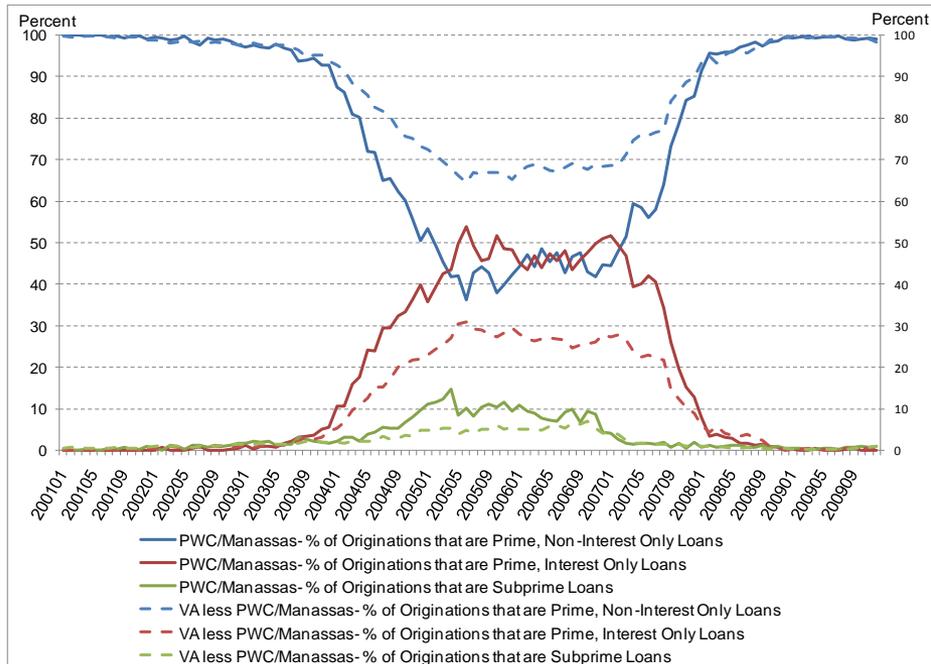


# Mortgage Type Share

## Charlotte



## Prince William County/Manassas (DC Exurb)

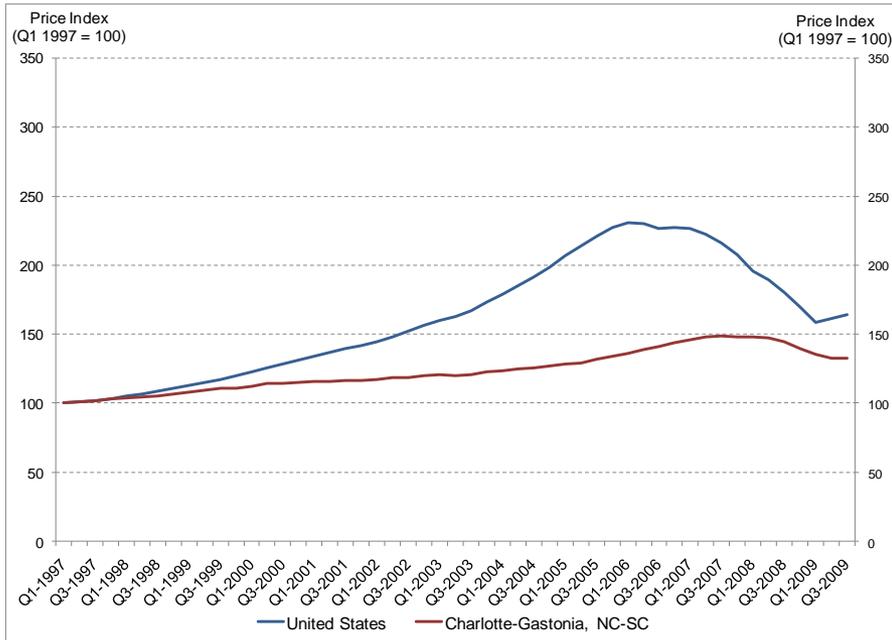


Note: IO data in this and following slides created from Lender Processing Services (LPS) Applied Analytics data.

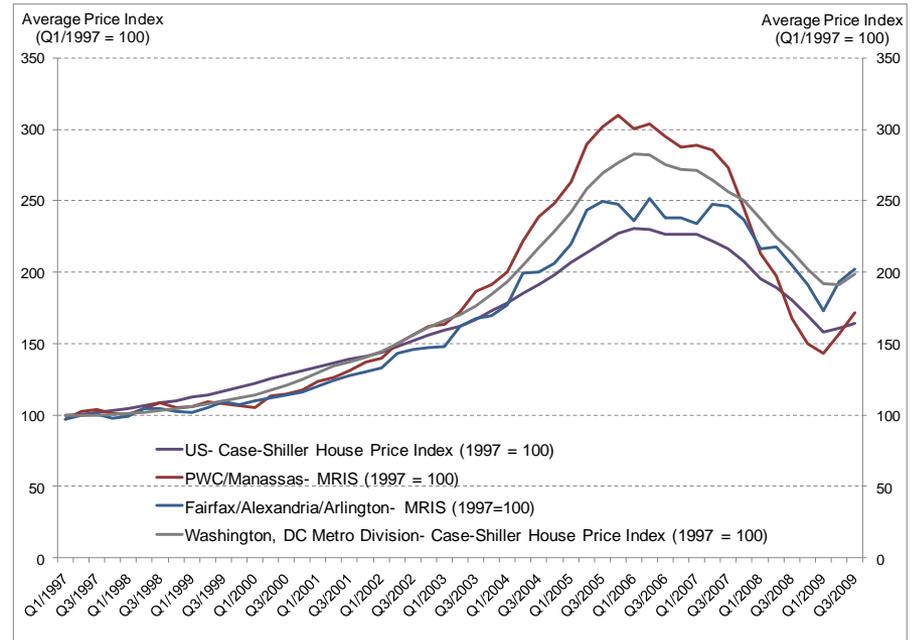


# House Prices

## Charlotte



## Washington DC, PWC/Manassas





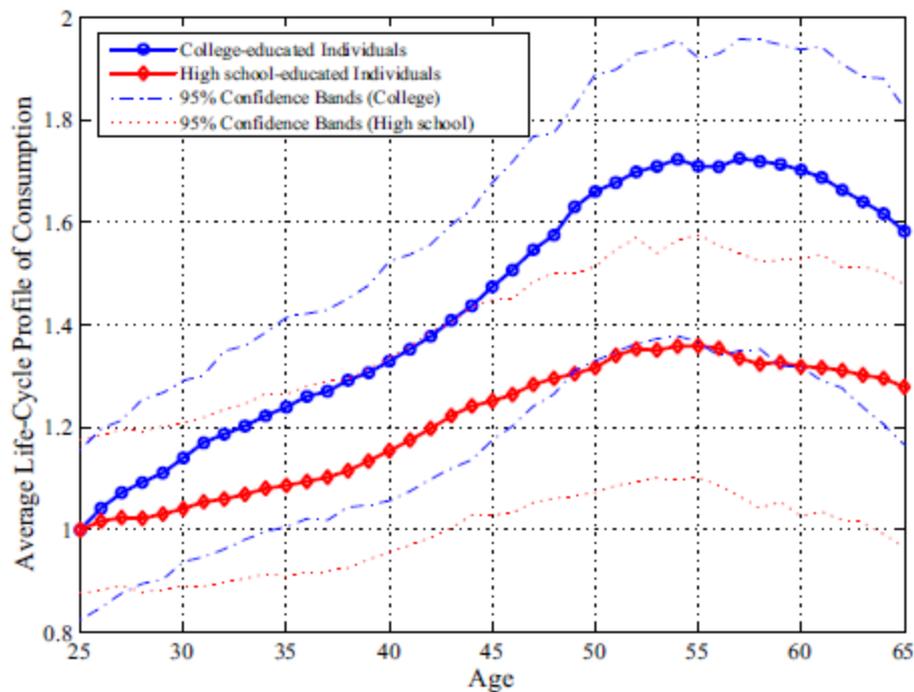
# IO Mortgages

- Empirical work very interesting
  - Use cross-sectional MSA data
  - IO purchases lead house price increases
  - Striking results
  
- I want to think about other evidence
  - Non-speculative uses for IO mortgages
    - How big are these numbers?
  - Do the patterns hold within an MSA?



# A Non-Speculative Use

Figure 2: Average Life-Cycle Profile of Consumption by Education in the U.S. Data



Source: Guvenan (2006)

College educated have a good reason to use an IO mortgage.





## Non-Speculative Uses

- Life cycle profile, particularly for college educated, could give a reason for IO mortgage
  - Need good panel, consumer-finance data to quantify
- Refinances
  - No role in model
  - But are a third of IO loans in DC area
  - Does not correspond to speculation in their model, unless IO mortgages refinancing other IO mortgages





## Across MSAs and in Their Model

- IO usage where there are building restrictions
  - Needed in model to get demand above low-value fundamentals
- IO usage leads housing prices
- Does this hold within an MSA?
  - Look at this using LPS data for IO mortgages and MIRS data for prices





# DC MSA

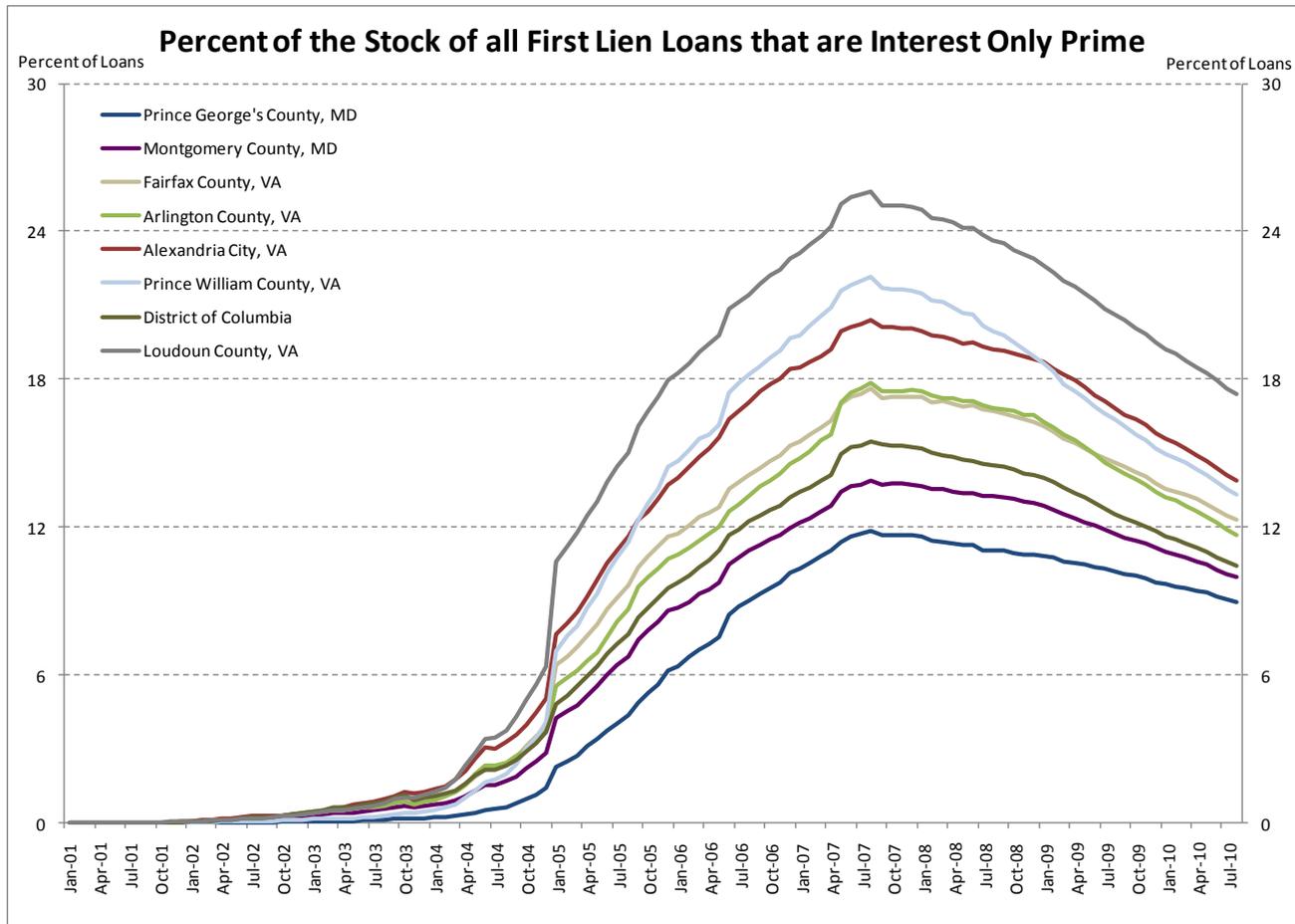


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# DC MSA: IO Shares





## DC MSA: IO Shares

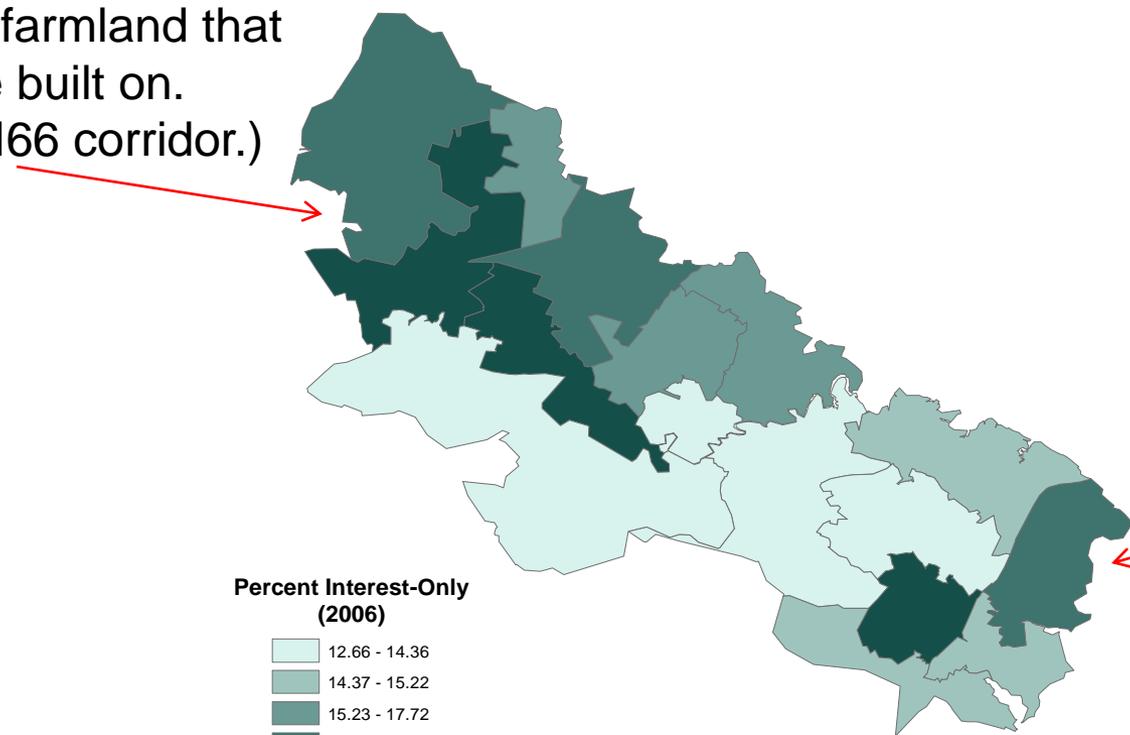
- IO Shares biggest in Virginia exurbs (Loudoun, PWC) where there is **more available land** to build than other communities
  - Not sure why so low in Maryland
    - Prince George's County had lower house prices and more subprime mortgages
- Contradicts their story





# True Even Within Prince William County

Area of PWC with lots of farmland that can be built on. (Near I66 corridor.)



Older, more developed areas of PWC (by I95 and Potomoc Mills mall)

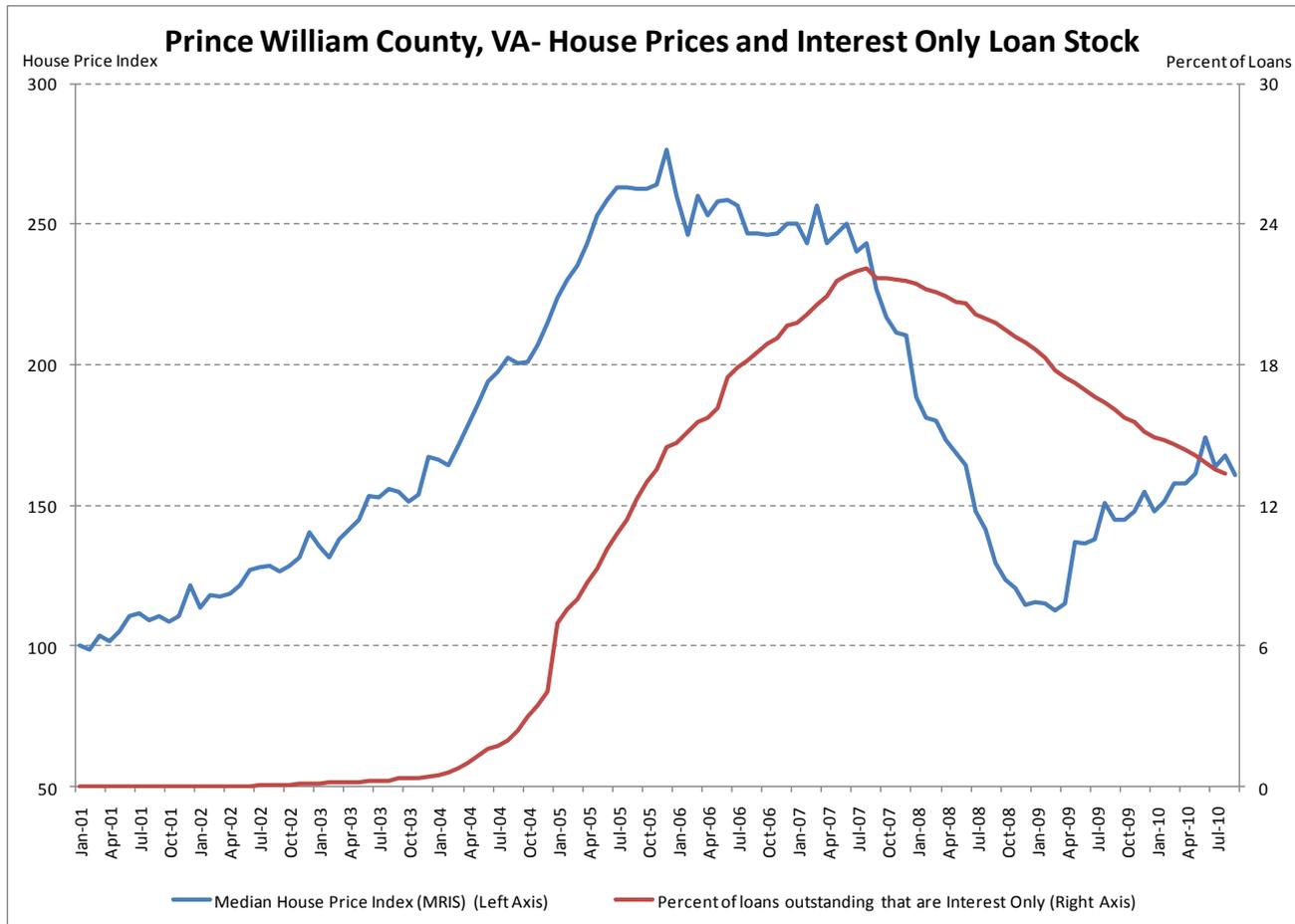




# Some Housing in Northwest Area of PWC County: Pretty Nice!



# What About Prices? For PWC Prices and IO Share Co-Move





# Fuster and Willen

- Interesting deep look at mortgage data
  - Have information on search behavior
  - Differences in behavior by FICO scores
  - Looking at purchase versus refi behavior





# Their Goals

- Macroeconomic effects of LSAP
- Understanding mortgage pricing
- Understanding why lower FICO people didn't refi





## For Answering Macroeconomic Questions

- A basic problem in monetary economics is to find a mechanism in which a Modigliani-Miller type theorem does not hold
  - i.e. Why does the composition of the central bank balance sheet matter?
  - Various strategies for escaping M-M (2 examples)
    - Sticky prices – New Keynesian models
    - Some consumers are credit constrained
  - This event study can't say much about this question other than to argue that the second mechanism isn't operational in the Fed's MBS purchases
    - The low-FICO score people stayed credit constrained
  - More generally, if a refi leads to more disposable income going to a borrower then it also leads to less going to a saver
    - Need general equilibrium to make any progress on macro effects
- I recommend Sargent (2010) for a discussion of some of these issues





# For Answering Microeconomic Questions in Housing Finance

- For this purpose, I like this paper a lot
  - Its another paper in a very nice research agenda that creatively develops microeconomic mortgage and housing data to shed light on important aspects of housing finance.
  - There is a lot in it
- Here they emphasize the point-rate schedule and how these varied by FICO score in this episode
  - Summary rates from surveys are misleading
  - The GSE increase in fees for low FICO borrowers is a significant price increase that might have had a big impact on refinancing by these households

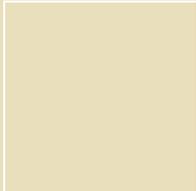




# Conclusion

- Two very interesting papers
- Both illustrate the importance of the bundle of characteristics in a mortgage contract
- Should think about how the bundle of mortgage characteristics chosen in equilibrium
  - Called theory of differentiated commodities in economics
  - For conforming mortgages, bundle set by GSEs
    - Suggest an industrial organizational model with a duopoly is a good place to start





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