

Closing Costs, Refinancing, and Inefficiencies in the Mortgage Market

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Overview



- Question: how does cross-subsidization across borrowers with different propensities to prepay affect aggregate and cross-sectional welfare?
- Approach: empirical measurement and structural model that take seriously borrower choice of **up-front costs**
- Results:
 - Large welfare gaps across active/inactive borrowers (4.4% of PV)
 - Aggregate welfare effects from excessive refi (~1/3 of refis would not have occurred in no cross-subsidization world)

Evaluation



- This is a great paper!
 - Important and understudied institutional detail
 - New results from a very comprehensive data set
 - Nice structural model estimated with huge computational effort
- Suggestions:
 1. Paper could use a clearer explanation of how allowing menu of up-front costs affects welfare compared to **standard** baseline
 - Currently changing several things at the same time
 2. How should we think about sophistication vs. impatience?

Cross-subsidization



- Standard US mortgages include an **option to prepay**
 - Essentially a call option on the market value of the mortgage
 - Increases the price of credit (interest rate) on the mortgage
- In practice, borrowers do not exercise the option optimally
 - In particular, **fail to prepay (refinance)** when rates are low
 - Decreases the value of the option, reducing rates
- Variation across the population in propensity to refinance
 - Competitive lenders price option at average value
 - High refi types gain, low refi types lose (**cross-subsidization**)

Adding in up-front costs



- Institutional detail: lenders offer menu of up-front costs
 - Higher up-front costs → lower rates
 - Usually ignored in literature to date
- These up-front costs **discourage refinancing**
 - A new mortgage with high up-front costs is expensive
 - A new mortgage with low up-front costs has lower interest savings
- Author's empirics show that this holds in the data
 - Borrowers who pay more points are less likely to move or refi
 - Not clear if this is ex ante selection or ex post incentives

Taking a step back



- Consider the following transactions at the grocery store:
 - 3 bananas in exchange for \$1
 - 4 bananas in exchange for \$1 + 1 banana
- Very strange to pay using the exact thing you are trying to buy
 - But this is essentially what mortgage fees are!
 - Exchanging money today for money in the future + money today
- My interpretation: existence and especially variation in up front costs reflects attempt to **segment the market**
 - Borrowers then self-select based on patience or refi propensity

Comment 1: the effect of the points choice



- With this perspective, adding a menu of points seems like it should reduce cross-subsidization
- Borrowers with low refi propensity know that they get less value from the prepayment option
 - Lenders would be willing to offer them lower rates, but then high-refi types would imitate them
 - Paying up front costs helps low-refi borrowers commit not to prepay and potentially separate from the high refi types
- As a result, seems like choice should reduce cross-subsidization
 - Paper confirms this for high-cost vs. low-cost mortgages

Isolating the effect of points



- Adding the menu of up-front costs is the main innovation of the paper. How big is this effect on cross-subsidization?
- Author measures the effect of the actual distribution of up-front costs compared to a counterfactual where everyone is forced to take the **maximum** up-front cost and **roll it into the mortgage**
 - Offers welfare improvement compared to baseline interpretation
- High up-front cost like adding prepayment penalties to mortgages, clearly reduces cross-subsidization
- But being able to roll the costs into the mortgage is also new
 - Which piece is doing what?

Suggestions



- Compare the model to a simpler one where there is only a single contract at the **average cost, paid out of pocket**
 - This would isolate the effect of the up-front cost choice
 - Ability to roll costs into the mortgage is interesting but may face unmodeled frictions
- I also recommend reporting welfare gains by
 - Combination of refi type and beta
 - Up-front cost (points) choice in the main equilibrium
 - Without nonlinearities

Comment 2: sophistication



- Should we think about low-refi types as choosing low-cost contracts because they are impatient or unsophisticated?
 - Presumably, many borrowers fail to refi because they are unaware that they should do so
 - But choosing correct up front costs is just as complicated
 - Assuming they do this optimally means all the variation ends up being explained by β , which could matter for results
- Are markups the same across borrowers of different types (sophistication levels)?
 - If not, how might this influence welfare conclusions?

Conclusion



- Great paper making empirical and theoretical advances on an understudied topic: effect of cost choice on cross-subsidization
 - Approach and results seem intuitive and sensible
- Would be great to understand the effect of the points choice relative to the “standard” model without it
 - Menu of costs seems like it should reduce cross-subsidization
 - How much of an improvement is it?
- How should we think about borrower sophistication when choosing up-front costs (and not just refinancing)?