Discussion of
"An Empirical Study of Termination Behavior of Reverse Mortgage"
by Jiang, Miller, and Yang

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Background

- Reverse mortgage loans (RMLs) allow retired homeowners to free up home equity for expenditures without moving out of their (beloved) home.

- RML might become more important going forward.
  - Housing is the largest item in majority of retirees' portfolio.
  - Aging population.

- RML's unique feature: *Open-ended.* Due only when the borrower...
  - (D) Dies.
  - (R) Refinances.
  - (M) Moves out (to new home or nursing home).

- When do these three types of termination occur?

Proportion of Elderly Homeowners with RML: 1997-2015
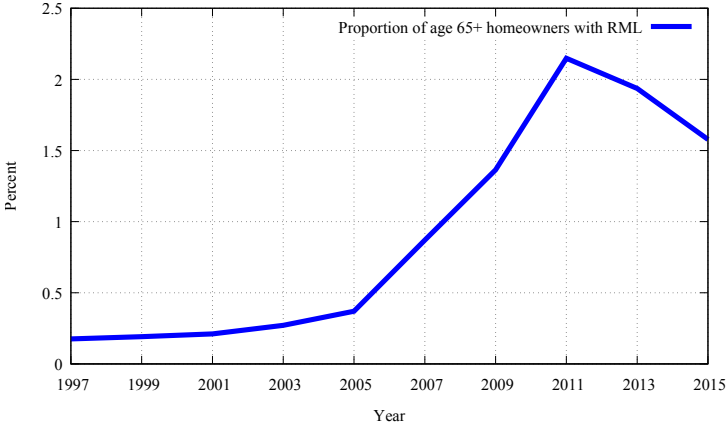
- Calculated using AHS.
- Increasing popularity of RMLs during the recent housing boom.

What This Paper Does and Finds

- Estimate the probability of termination, separately for D, R, M.
  - Factors affecting each type of termination are reasonable.
  - Taking account only D underestimates the termination probability.

- (D) Termination by mortality is predicted by...
  - Mortality rate, being single, first-month withdrawal (?).
  - RML borrowers tend to exhibit a lower mortality rate (selection).

- (R) Termination by refinancing is predicted by...
  - Higher house price (esp. the first three years), and first-month withdrawal.

- (M) Termination by moving-out is predicted by...
  - Low LTV, house price volatility, and house price value (easy to sell).
  - Mortality rate (moving to nursing home).

Comments 1/3

- This paper is a valuable addition to the literature on RML.
  - Providing basic but very valuable statistics about RML.
  - Subset of RMLs: Endorsed by one mortgage company (?).
  - Both loan characteristics and borrower characteristics are available.
  - Can tell how each RML is terminated.

- Even simple descriptive statistics are valuable. Need more!
  - Gross number of new RMLs and terminations, number of outstanding RMLs each year (representative sample?).
  - Average age of new borrowers each year.
  - Average borrower/loan age of termination each year.
  - Type composition (LOC, term, or tenure, fixed or adjustable rate) each year.
  - Average LTV each year.
  - Withdrawal patterns after origination.
  - Distribution of house price changes each year.

- Would be more valuable if descriptive statistics are presented more carefully.
  - Figure 1 (hazard rate by borrower age?): control age/time effect.
  - Figure 2a (termination by age): control time/cohort effect.
  - Figure 2b (termination by loan age): control the borrower characteristics (age).
  - Would like to see proportion instead of frequencies in Figures 2, 3, and 4. Seems that the composition might not be so different across years, but not clear.
  - Table 4 (gender of borrowers): control for age effect.

- Would be nice if the authors could distinguish moving out for a health reason (to nursing home) and moving out for a financial reason.
  - For example, death within x years after moving out.

- How good is the predictive ability of the authors' model?
  - For better prediction of the termination rate, would it be better to just put all the right-hand variables together, and try to forecast the *total* termination rate?
  - Would be nice to show how well the authors' methodology predicts the realized termination rate (compared with just using the mortality rate).

- How about the early termination fee?
  - How much does it prevent early terminations?

- How about the implemented changes in fee structure?
  - Did it change the loan and borrower characteristics?

- Any policy implications?
  - Is there a way to make RMLs more profitable?