Inattention and Inertia in Household Finance: Evidence from the Danish Mortgage Market

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Imperial-FCA Consumer Choice in Mortgage Markets
Danish Setting

• 30-year FRM popular but gains in ARMs and IOs in 2000s
• 53% homeownership rate, 45% of renters are in subsidized housing
• Covered-bond system one alternative to government-guaranteed securitization
  – Banks retain skin-in-the-game, max LTV is 80%
  – Even still, many IO mortgages were written + subsequently underwater
  – Even still, bank bailouts and failures
• Concentrated system: only 7 mortgage banks
  – Top 5 have 94% market share
  – Top 3 have 85% market share => these banks are SIFIs
• ** Take note: system solves coupon-gap lock-in
Real House Price Index

2000=100

- Denmark
- United States
- 19-Country Aggregate

Source: Federal Reserve Bank of Dallas, International House Price Database
Mortgage Product Interest Variability

Percent

Australia  Canada  Denmark  France  Germany  Ireland  Japan  Korea  Netherlands  Spain  Switzerland  U.K.  U.S.

Variable rate  Short term fixed  Medium term fixed  Long term fixed

Source: RBA, CHMC, KHFC, EMF, GPG, MBA and S&P.
Summary

• Model refinancing decision with mixture model

1. What groups are too slow to refinance, when?
   – 90% of those that would benefit from refinancing do not
   – Financially less literate, elderly, uneducated, less income...

2. Consumption cost of refinancing inertia? £178 billion

3. Does slow refinancing impede MP transmission? Hard to see how it wouldn’t.
Inattention vs. Inertia

• **Inattention**: not paying attention to refinancing opportunities (“asleep” HHs)
  – Affect with disclosure? See Adams et al., FCA OP 19
  – Stronger policies?
  – Plenty of practitioners ready + willing to help

• **Inertia**: are aware of gains of refinancing but costs (hassle, fees, time) are significant so appear slow to refinance
  – Money left on the table a poor measure of welfare
  – Improve welfare with policy that improves process
  – Plenty of practitioners ready + willing to help
The Importance of Being Earnest Switching

• Competitive market relies on consumers “voting with their feet”
• In reality, consumer choice is sticky
  – Heath insurance, retirement plans, savings accounts, cell phone plans, gym memberships, ...
• First Fundamental Welfare Theorem of Economics: can’t improve on free market without making someone worse off
  – Requires no transaction costs + informed consumers + ...
• If violated, de facto monopoly for current provider
• Policy response: mandate disclosures
  – Limited effectiveness because of inattention (Adams et al., FCA OP 19)
• Inertia => lower rates + redistribution from non-switchers to switchers
Why policy should care about refinancing

- With a FRM, need to refinance to take advantage of falling rates
- Changing credit conditions (e.g. MMR, Dodd-Frank) creates lock-in
- => Monetary stimulus only for those FR borrowers that can refinance (see Di Maggio, Kermani, and Palmer, 2016 and Beraja, Fuster, Hurst, and Vavra, 2016)
- => Importance of complementary policy that greases the wheels (e.g. HARP, see Agarwal et al., 2016 and Amromin, Di Maggio, and Kermani, 2016)
- Rising rates can create lock-in relative to ARMs
  - But don’t forget that FRMs offer protection for borrower
Sorting in Mortgage Markets

- Paper shows importance of borrower heterogeneity (contrast with implicit assumption of causal effects of mortgage choice)

<table>
<thead>
<tr>
<th>Mortgage Product</th>
<th>Initial Default Rate</th>
<th>Default rate after policy change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Exotic</td>
<td>High</td>
<td>-outlawed-</td>
</tr>
</tbody>
</table>

- Common policymaker reaction: success!
- What happened to types of borrowers that used to take out exotic mortgages? Either:
  - Not participating in mortgage market
  - Take out standard mortgages and may default just as much
Other thoughts

• Behavioral story with interesting beliefs about interest rates?
  – Given cost of refinancing, option value of waiting given potentially falling future interest rates.
  – Asymmetry with rate rises/falls?

• Why do awake HHs refi with negative incentive?

• Can learn about refi lag between rate fall?
EXHIBIT 4.15 Mortgage Rates and the MBA Refinance Index, April 1997–December 1998

- Rates drop 100bp from April to Year-End '97, but nothing happens
- Rates back to early 1998 lows but nothing happens
- Rates hit multi-year low
- Rates fall significantly below early 1998 lows

Sources: Mortgage Bankers Association, Freddie Mac, and Salomon Smith Barney.

Source: Hayre (2001)
Conclusion

• FRMs have distinct advantages/disadvantages over ARMs
• Well-known that many borrowers are slow to refinance.
• This paper: better sense of heterogeneity
  – Importance of acknowledging heterogeneity in policy
• Plenty of inattention not just inertia
• Reason to be concerned about redistributitional effects of lack of switching
• Let’s not lose sight of benefits of FRMs