The Edge of Banks is Still Sharpe: Segmentation in the Conforming Mortgage Market

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Research Question

Do the bank lenders have pricing power in the conforming mortgage market?

- Do bank lenders have the ability to charge a higher price above the industry average?
- If yes, do the bank lenders obtain pricing power by attracting customers of lower price sensitivity?
- If yes, what is the advantage that enables bank lenders to achieve price differentiation?

Background

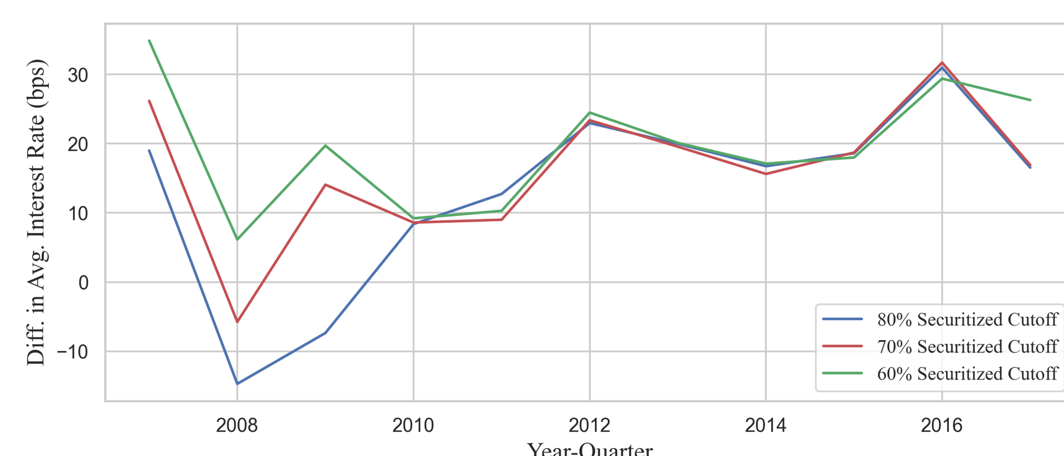
With the advancement of technology, more aspects of financial services have moved from brick-and-mortar locations to online, where the new generation of nonbank intermediaries has a first-mover advantage. Additionally, the conforming loan sector is widely considered to be highly competitive. Thus, one would anticipate that banks would have limited pricing power in this market.

Data

I utilize micro-level data from the Gies Consumer Credit Panel (GCCP).

- Mortgage loan data at the loan level
- Inquiry data at the inquiry level
- More accurate information on securitization, credit scores, and demographic information compared to HMDA data

Figure: Interest rate difference between portfolio lenders and OTD lenders



Portfolio Lender Premium

I classify a lender as a portfolio lender if it finances at least 30% of the mortgages it originates on its own balance sheet in the past 12 quarters.

- Data shows polarization in loan financing strategy
- Portfolio lenders are exclusively banks
- Portfolio lenders are likely banks with extensive branch networks

Theoretical Framework

I build an industrial organization model of lender competition, which yields two necessary conditions for a positive PL premium

- Lenders have local market power.
- A portfolio lender has a smaller cross-elasticity of demand than that of the OTD lender.

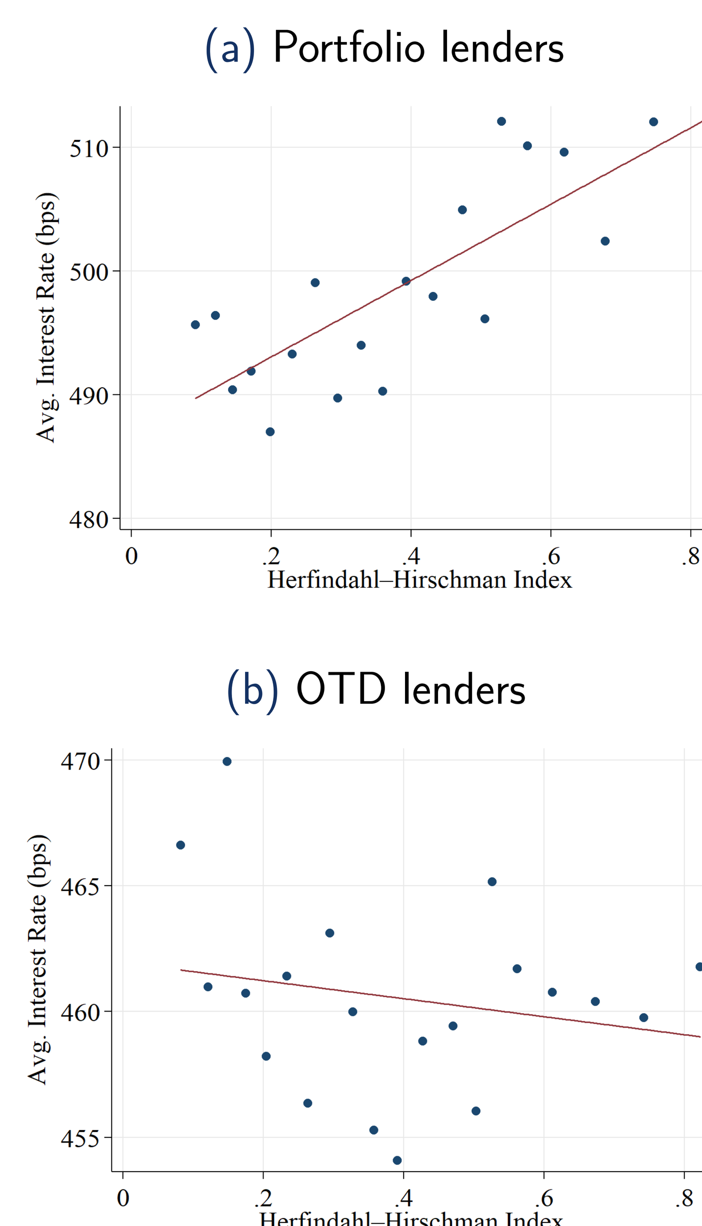
Main Results

Bank lenders that **finance loans on their own balance sheets (portfolio lenders)** have strong pricing power in the conforming mortgage market.

1. Portfolio lenders charge a premium of 9 to 12 bps (PL premium)
2. The PL premium raises by an additional 6.20 bps Per one SD additional increase in mortgage demand
3. The PL premium is positively associated with proxies for the scales of the lenders' branch network

Does market concentration matter in conforming market?

Figure: Relationship between Interest rate and HHI



Do Portfolio lenders face less price-sensitivity borrowers?

To test the second necessary condition, I construct a Bartik-type instrument for mortgage demand:

$$\Delta B_{c,y} = \sum_{b=1}^{11} w_{b,c,3} \Delta ln(Inq)_{b,c,y}, \tag{1}$$

where the instrument is the weighted average of the national growth of mortgage inquiries in each consumer bin, with the weight being the percentage of consumers in each bin.

I use the following 2SLS specifications:

$$\Delta \ln(Inq)_{l,c,y} = \alpha_{l,y} + \alpha_{c,y} + \beta_1 \Delta B_{c,y} \times \mathbb{1}^{\text{PTF}}_{l,y} + \mu' \boldsymbol{X}_{l,c,y} + \epsilon_{l,c,y}, \tag{2}$$

$$\Delta R_{l,c,y} = \alpha_{l,y} + \alpha_{c,y} + \beta_2 \widehat{\Delta \ln(Inq)}_{c,y} \times \mathbb{1}^{\text{PTF}}_{l,y} + \mu' \boldsymbol{X}_{l,c,y} + \epsilon_{l,c,y} \tag{3}$$

If the portfolio lenders face borrowers of lower price sensitivity, β_2 should be positive, i.e. the portfolio lenders increase interest rates more than the OTD lenders do following an increase in mortgage demand.

Effect of Branch Network

I present evidence that is consistent with the portfolio lenders deriving their pricing power from their advantage in branch networks.

- With nonbank market share as a measure of the borrowers' preference for online service: the PL premium within the bank lenders decreases by 2-3 bps per a ten percentage points increase in county-level nonbank market share.
- With the number of operating counties as a proxy of the scale of its branch network: the portfolio lenders that originate mortgages in more than 500 counties charge 12 to 13 bps higher interest rates than other portfolio lenders.

Conclusion

Certain bank lenders retain a competitive edge in the conforming mortgage market. Many regard the physical infrastructures of the banks as being obsolete. My study suggests that they still play an important role for the banks, partly explaining why the banks still keep operating them. My study is also relevant to regulations in the banking industry. Regulatory bodies often emphasize deposit market concentration during bank mergers, while my findings indicate that lender concentration may also impact mortgage market outcomes.

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