Vertical Integration and Mortgage Risk
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Abstract
- Use acquisition events between broker/dealer banks and mortgage lenders as shocks to local mortgage markets.
- We find vertical integration in residential mortgage-backed securitization led to riskier loans with higher loan-to-value ratios, foreclosure rates, and interest rates.
- The effects spilled over to nearby competitors and were associated local house price collapse after 2007.

Motivation
- Non-agency residential mortgage-backed securitization (RMBS) provides little incentives for mortgage lenders to screen borrowers, by separating a loan’s originator and the bearer of the loan’s risk (Keys et al 2010).
- Vertical integration between mortgage lenders and RMBS sponsors may help to mitigate risky mortgage lending through the retention of RMBS equity tranches by RMBS sponsors (Demiroglu and James, 2012).
- However, Ashcraft et al (2019) shows RMBS sponsors are able to sell their equity tranches through re-securitization. Moreover, vertical integration may encourage risky lending practices because it improves profit margin per loan originated (Goldstein and Fligstein, 2017).

Research Questions
- How does vertical integration between mortgage lender and RMBS sponsor affect mortgage risks?
- What are the impacts on local housing markets?

Identification Strategy
To estimate the casual impacts of vertical integration on loan risks, we:
- Exploit seven acquisitions events between broker/dealer banks (RMBS sponsors) and mortgage lenders as shocks to local mortgage markets in 2006 and 2007 first half.
- Use a staggered within ZIP-code difference-in-differences framework
- Include ZIP-code-Year-Month fixed effects to control for time-varying local economic conditions
- Include Lender-County fixed effects to control for time-invariant lender characteristics

Data
- Individual level property transactions from Zillow’s Assessor and Real Estate Database,
- Loan level Home Mortgage Disclosure Act (HMDA) data.
- Sample period is 2006-2007.

Effects on Treated Loans
Vertical integration led to increases by:
- 1 percentage point in LTV ratios, 211 percentage points in foreclosure rates, and 77 basis points in rate spreads.
- $38,772 in dollar amounts per ZIP-code per month.

Effects on Treated Loans Cont.

Spillover Effect
- Nearby loans also had higher LTV and foreclosure rates.

Local House Price
- ZIP-codes with larger market shares of integrated mortgage lenders experienced greater house price declines after the financial crisis.

Conclusion
- Vertical integration between RMBS sponsors (broker/dealer banks) and mortgage lenders led to the origination of riskier loans.
- The effects spilled over to nearby competitors and were related to the collapse of local house prices.