Can Technology Undermine Macroprudential Regulation? Evidence from Peer-to-Peer Credit in China

Discussion by

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Main findings

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- **Paper examines**
  - » The effect of LTV limits on P2P lending in China
  - » Identification strategy exploits differentiated LTV limits across cities in China
    - » Tier 1 and Tier 2 cities introduced lower LTV limits in 2013

- **Main results**
  - » LTV limits increase P2P lending
  - » A 10 percentage point reduction in the LTV limit from 70% to 60% increases P2P applications by 10.5% and loan volumes by 6.6% per month
  - » No effect on house price growth or P2P loan terms

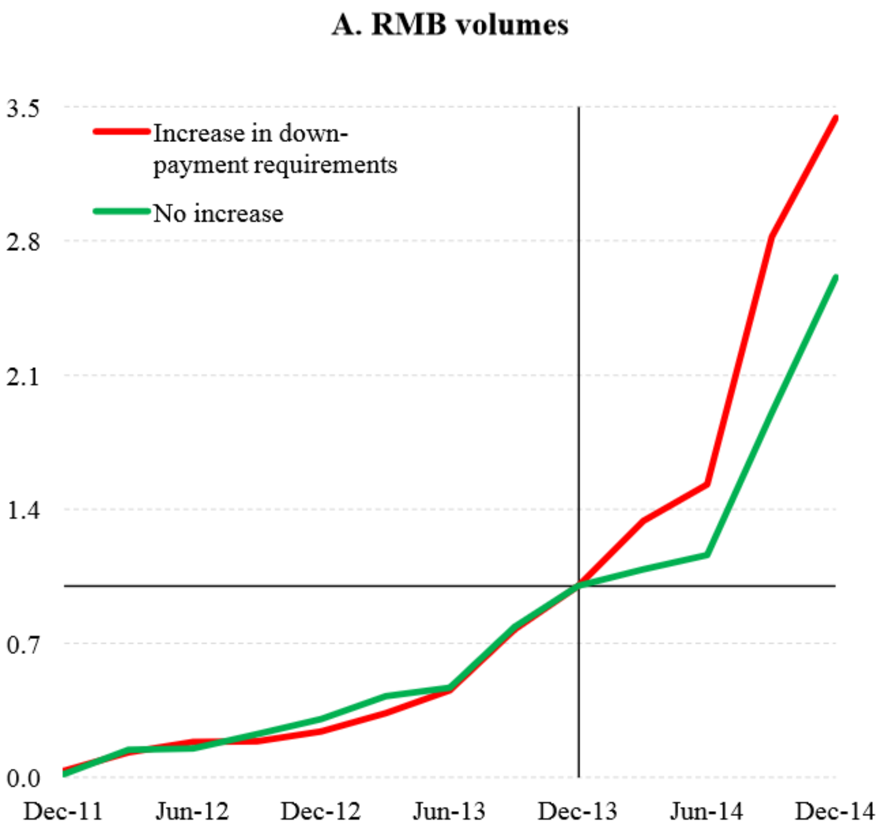
Contribution & prior literature

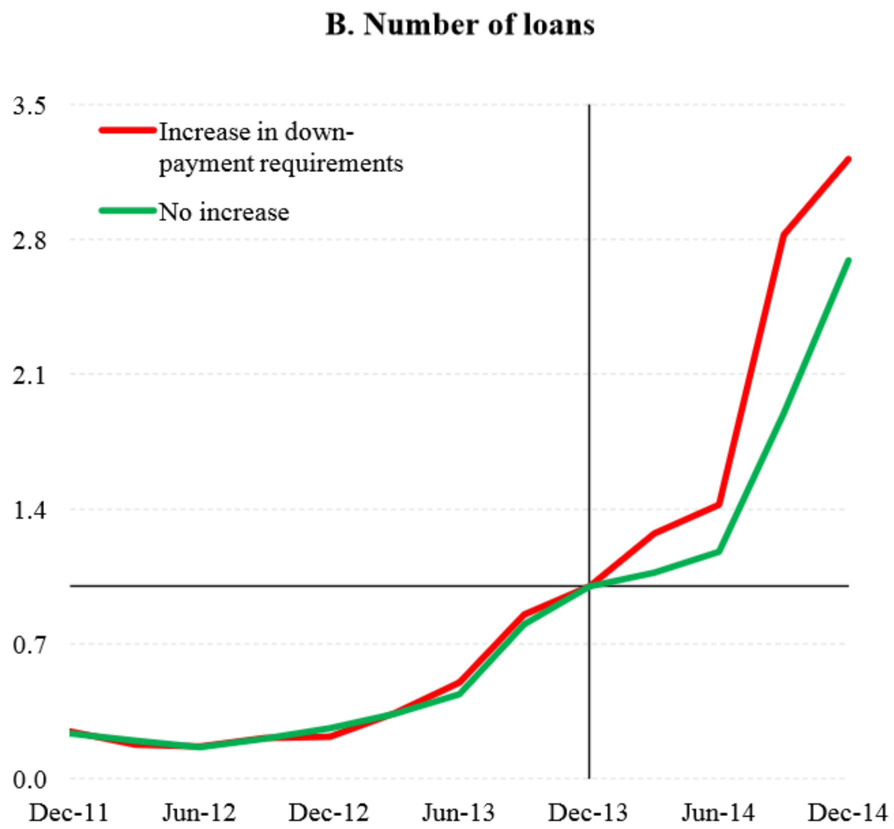
- **Positioning of study**
  - Estimates the effect of LTV limits on P2P lending

- **Main issue**
  - LTV limits affect the fraction of the house value that can be financed by a mortgage
  - Reducing the LTV limit from 70% to 60% increases the need for other sources of financing (equity or bank loans) from 30% to 40%
  - Effect of LTV limits might be undermined by household savings or ability to borrow from banks, family & friends or peers
  - P2P loans might increase because house owners ability to finance consumptions through their mortgages is affected by the reform

- **What is the role of "technology"?**
  - P2P lending is an additional source of debt financing
  - But, market is small relative to traditional banking or household savings (particularly in China)

Identification strategy





Comments

Potential challenges for the identification strategy

- Credit supply might drive increase in P2P lending in cities where the LTV limit is reduced from 70% to 60%
- Credit supply channel
  - House price growth is driven by local macro economic conditions
  - House price growth drives macroprudential regulation and result in LTV limits
  - Local macro economic conditions are largely unaffected by LTV limits, thus trends in credit supply might confound the analysis

  - Potential channel:
    - Potential house buyers might delay decision to purchase a house and make their savings available for P2P lending
    - Families of potential house buyers might do the same
    - Past house price growth increases credit supply for existing house owners

Comments

Potential challenges for the identification strategy

- The authors control for the credit supply channel by including lender fixed effects
  - Reduces the magnitude of the estimated effect of LTV limits on P2P lending from 6.6% to 2.5% per month

- Unclear why lender fixed effects would control for the credit supply channel?
  - Lender fixed effect controls for the lenders location

- The credit supply channel is time-varying and potentially affected by the reduction in LTV limits
  - To control for the credit supply effect of lenders, the specification should include lender-time fixed effects

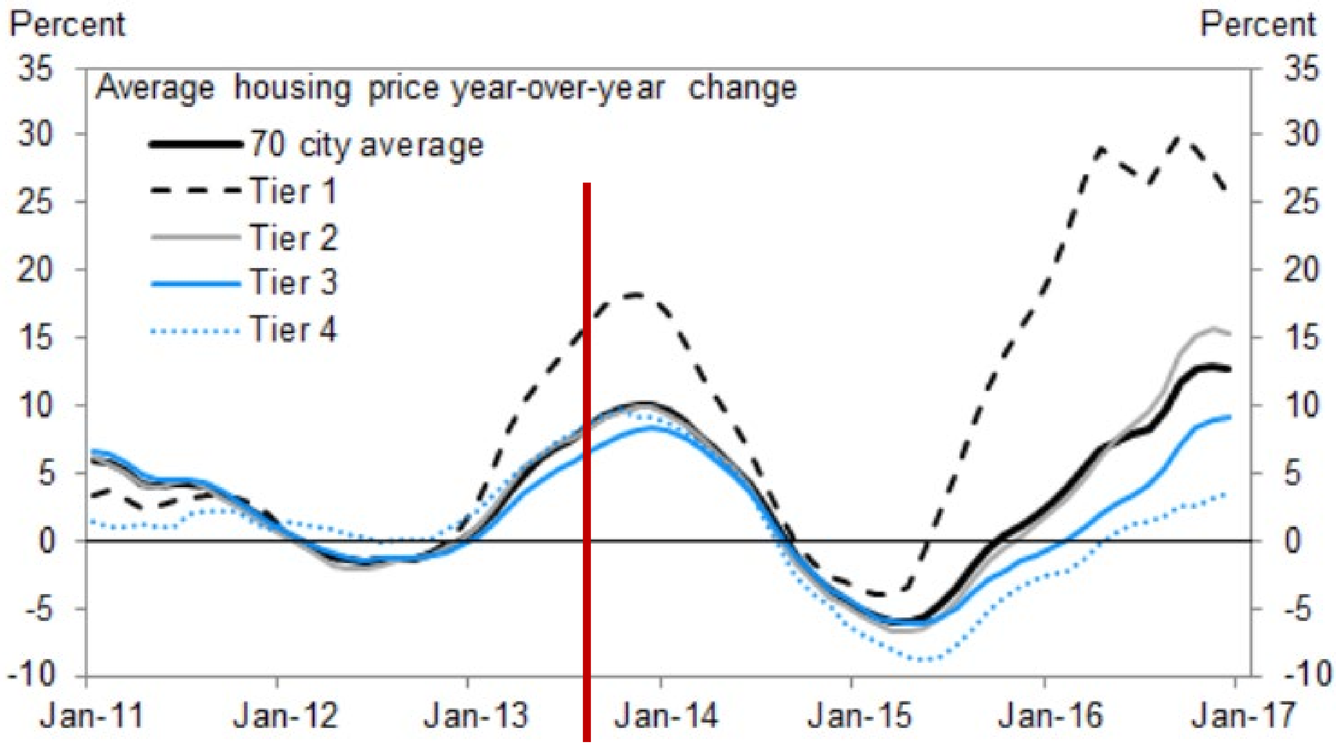
Economic significance

Are the results economically significant?

- P2P lending increases by 2.5% per month after the need for non-mortgage sources of financing increases from 30% to 40% of the house value
- P2P loans have an average size of RMB 59,674 and a maturity of 27 months
  - A 2.5% increase per month in P2P loan size will provide RMB 18,000 of additional financing for house purchases after the reform – for 27 months
- A medium-sized apartment (70 m2) in Shanghai costs RMB 1.8 million, implying that regulation increases the need for financing by RMB 180,000
- P2P lending can account for 10% of the increase in financing need on the short-term
  - P2P loans might be consumption loans (rather than loans to finance house purchase)
    - Increase in P2P loans might have nothing to do with the house market and the effect of macroprudential policies

Comments

Effect of LTV limits on house prices



- Data suggest that there is a large effect of LTV limits in Tier 1 cities, but that Tier 2 cities follow Tier 3 and 4 cities
- A much more careful analysis is needed to conclude that LTV limits do not affect house prices in China

Effects on P2P loans

Pricing and risk of P2P loans

- No effect of increased lending on screening (on-site verification), pricing and duration
- Decline in loan performance in treated cities
  - Delinquency rates increase by 0.9%
  - Default rates increase by 0.9%
  - Effects disappears when controlling for borrower fixed effects

- Main problem with this test is there is no control for the use of the P2P loans
  - Results should condition on loans that are used for financing of house purchases

Conclusion

This study examines how LTV limits affect P2P lending

- Interpretation:
  - P2P lending might increase due to LTV limits affecting households ability to finance consumption through their mortgage
  - Increase in P2P lending does not imply that macroprudential regulation is ineffective
    - LTV limits might be ineffective in China because of the high savings rate of Chinese households
    - P2P loans command an interest rate that is significantly higher than the mortgage rate in China, so LTV limits would make financing for houses more expensive
  - Title is potentially misleading. There is no test of the question posed in the title: “Can technology undermine macroprudential regulation”

- Good luck … !