

Comments on  
“TechFin in China:  
Credit Market Completion  
and its Growth Effect”  
by Hau, Huang, Shan, and Sheng

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# Overview

- Important and interesting work.
- First serious study on vender credit offered by Ant Financial, which operates Alipay that is said to be more than 50% market share of mobile payments in China.
- Big data: about 30,000,000 vendors, monthly statistics, two years (2014/9 – 2016/7)
- Three empirical findings on easing financial frictions
  - Geographical differences are alleviated
  - Riskier firms are served
  - Growth of served firms is higher

# Theoretical predictions

- What are theories on financial frictions?
  - Transaction costs (buildings, ATM machines, workers, payment system network, recording credit histories, etc)
  - Informational problems (adverse selection, moral hazard)
- Reduction of costs —> less geographical barrier
- Informational flows —> riskier are more served

# What is Ant F doing?

- Reduce transaction costs—no need to question
- Alleviate informational problems—circumstantial evidences
  - By increase informational accuracies
    - Machine learning, using daily trade histories vs local info (e.g. Grameen bank)?
  - Better penalties
    - online and city area vs local reputation in rural area?
- Both of above create downward bias on coefficient.

# Geographical differences

- Variables of interest (OLS):
  - + Distance from 20/10 bank branches (good IV, but often 1-3 bank relations?)
  - - Loan/GDP, + per capita GDP (likely endogenous, esp. pcGDP may be better viewed as a control—city fixed effect model is better)
  - + SOE employment share (gov fin distortion or growth potential?)
  - - Distance from Big Five banks (siphoning deposits or low frictions?)
- Controlling firm characteristics:
  - Credit Score, Age, Sales, Loan rate, Type, (industry?)
- Controlling owner characteristics: Age, Gender, Marital status, Migrant, Income, property ownership

# Riskier firms

- In regressions, credit score has a negative coefficient.
- Not just reflecting more borrowing by geographically poorer regions.
- On the contrary, distance from banks matters more for those with higher credit scores.
- Those with lower credit scores have smaller savings and are likely to borrow more, if approved. So, the question is how different coefficient on credit score from traditional banks? (possible future work)

# Firm growth as outcome

- Outcome is the important question: Served firms grow more.
- But, if Ant's decision is not based on good algorithm, it sow the seed for a crisis.
  - Based on past data, evolving regressions or decision trees, similar to CDO credit ratings before GFC.
- Regression discontinuity design:
  - Credit score is used for lending decision. 480 score is the cutoff. Close to 480 score can be considered as random.
  - Demand diversion (stealing) still exists as noted.
  - How about interaction with bank branch distance? Is the effect larger in less financially developed locations, controlling pcgdp? (especially for firms selling products that are sold nationally)

# Conclusion

- Great paper!—Important and interesting.
- Well done, given limitations on data, computer power, and data access issues.
  - Would like to see robust results for rival firms in a future work.
- Better presentation would improve the paper
  - Focus on a few key regressions
  - Refine interpretations of some results
  - Avoid recurrent discussions on the same issues