Cole, Cumming, and Taylor (2019) - "Does FinTech compete with or complement bank finance?"

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Summary

Contribution

FinTech vs. bank finance

- Substitutes, complements, or neither?
- Prior empirical evidence mixed

Data

- US crowdfunding projects (TAB Marketplace Finance Intelligence) + crowdlending data (Lending Club + Prosper)
- FDIC bank failures/closures (Cole and White 2017)

Units of analysis

- Project level
  - NB. Can be a personal project (eg. medical expenses)
- County level
  - County where a crowdfunded project is located
  - Allows matching to county-level bank failures

Results

Empirical approach

- Dummy variable for bank failure in a project's county
- Panel regressions of bank failure + controls against:
  - funds raised
  - number of projects launched

Findings

- Occurrence of a bank failure is associated with a decrease in funds raised & projects launched using crowdfunding
  - Robust across specification and type of crowdfunding project
- Therefore, FinTech and bank financing are complementary

Comments

Comment: complementarity story

Cole, Cumming, and Taylor (2019) give reasons that crowdfunding and bank lending might be complementary

1. Bank debt needed for entrepreneurs to get projects ready for crowdfunding
2. Signalling quality
3. Multiple sources can help entrepreneurs mitigate hold-up problems
4. Spillover/agglomeration effects among entrepreneurs who use different types of financing
5. More sources of capital enable more entrepreneurs to seek capital

Personal lending

- The above channels concern entrepreneurial financing
- 16,306/665,138 (i.e. 2.5%) of debt-based crowdfunding projects in the sample are for small business loans
- What channels could cause complementarity for personal financing?

Comment: economic significance

Example quote

"The economic significance is large. A bank failure in a county quarter gives rise to a reduction in crowdfunding by 101.99% (relative to the average amount across all counties and all quarters in the data) in the most conservative estimate and 608.33% in the least conservative estimate."

Suggestion for interpretability

- Log the dependent variable Y (example: funds raised)
- Then a coefficient value β on the bank failure dummy can be interpreted as: occurrence of a bank failure is associated with a $(e^{\beta} - 1) \times 100\%$ increase/decrease in Y

Comment: county demographics vs. county FEs I

Example: Table 6 Panel B (others are similar)

	(1) Funds Raised	(2) Funds Raised	(3) Funds Raised	(4) Funds Raised
Population	37.463***	37.685***	37.657***	37.629***
	(5.459)	(5.488)	(5.489)	(5.486)
% Female	490.303	467.169	437.616	501.897
	(900.559)	(903.365)	(904.007)	(903.105)
% Non-White	1358.560	1563.206	1410.825	1485.577
	(2553.762)	(2538.466)	(2550.537)	(2548.782)
Unemployment	-87.641	129.429	205.491	163.829
	(222.742)	(222.554)	(226.302)	(225.087)
Per Capita Inc.	2.617**	2.226*	2.153*	2.263*
	(1.293)	(1.256)	(1.262)	(1.264)
% Subprime	-1002.811***	-909.771***	-906.262***	-899.099***
	(326.425)	(313.857)	(320.062)	(316.442)
Branch Deposits	0.011*	0.011*	0.011*	0.011*
	(0.006)	(0.006)	(0.006)	(0.006)
Fail	-285.187***			
	(55.946)			
NACR Fail		-323.325***		
		(57.068)		
NACR1 Fail			-206.835***	
			(26.412)	
NACR2 Fail				-260.695***
				(39.234)
Constant	-3809.051***	-3871.009***	-3836.775***	-3879.497***
	(528.585)	(528.759)	(526.139)	(528.801)
Obs.	100,893	100,893	100,893	100,893
R-squared	0.563	0.567	0.566	0.566
Year-Quarter FE	YES	YES	YES	YES
County FE	YES	YES	YES	YES

Comment: county demographics vs. county FEs II

Clash between county-level demographic variables & FEs

- County FEs likely to kill variation needed to estimate county-level demographic variables
  - Likely explains the lack of significance of most of the estimates
- If demographic variables are controls, they are likely to be redundant in the presence of county FEs
  - Can remove the demographic variables in this case
- If the effect of county-level demographics is of interest, remove the county FEs to enable these to be estimated accurately
  - Consider replacing county FEs with state FEs

Comment: more on panel regressions

Standard errors

- Do not appear to be clustered? Probably should be
- Wooldridge: "A panel data set is naturally clustered by the cross-sectional identifier . . . the clustering is to account for serial correlation"
  - In your panel, this would be the county level

Scaled variables?

- Text refers to standard deviation changes in independent variables – are they scaled in the panel regressions?
- Clarify by writing full regression specifications

Constants

- Not interpretable in the presence of FEs – don't need to display

Comment: additional analyses

Extensive vs. intensive margins

- Current version studies the extensive margin, i.e. occurrence of a bank failure
- Cole, Cumming, and Taylor (2019) have rich enough data to study the intensive margin: effect of the decrease in amount of bank financing available due to bank failures
- Intensive margin findings would strengthen confidence in results

Channel(s) of complementarity

- Related to earlier comment on potential causes of complementarity
- Can the data be used to identify what channel(s) cause this complementarity effect?

Conclusion

Contributions

- Exogenous decreases in bank financing (at the extensive margin) are associated with decreases in crowdfunding amounts and projects
- Bank financing and crowdfunding are complementary

Main suggestions

- Expand the analysis along a few dimensions
  - Personal financing: why complementarity here?
  - Can you identify which channels are empirically responsible?
- Various econometric suggestions

References

References

Cole, Rebel A, Douglas J Cumming, and Jon Taylor. 2019. "Does FinTech compete with or complement bank finance?" *Available at SSRN* 3302975.

Cole, Rebel A, and Lawrence J White. 2017. "When time is not on our side: The costs of regulatory forbearance in the closure of insolvent banks". *Journal of Banking & Finance* 80:235–249.