

P2P Lenders versus Banks: Cream Skimming or Bottom Fishing

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This paper addresses a very important question

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- a long literature on banks as financial intermediaries
- a growing literature on fin-tech

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This paper does exactly that!

- 1 Model on the competition for loans between commercial banks and P2P lenders
- 2 Empirical test of model using German data

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 - Fund loans with deposits and inside equity - \bar{c} moral hazard (Holmstrom and Tirole, 1997)
 - Monitoring of loans (Diamond, 1984)
 - Provision of liquidity to depositors + regulatory costs (Diamond and Dybvig, 1983)

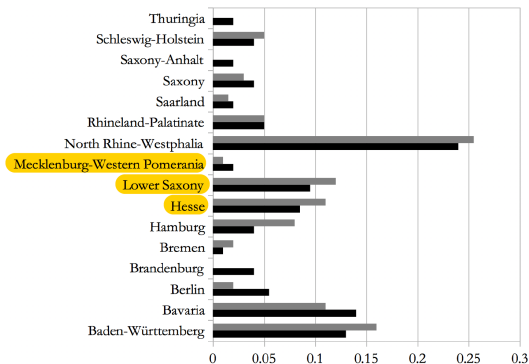
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- P2P Lenders are different:
 - Need to poach away loans from banks by offering a lower interest rate
 - Equity financed - no moral hazard
 - Less capable in monitoring and screening
 - No liquidity from deposits but also no regulatory costs

Diff-in-Diff: Loan Volume by Control and Treatment Groups

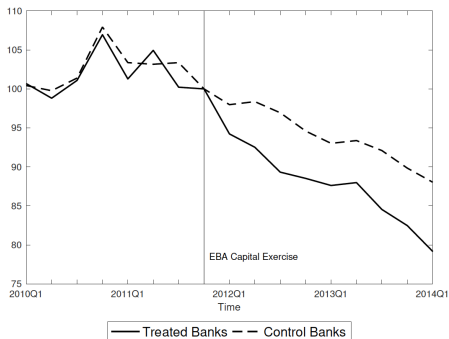
Result I: When bank regulatory costs increase, banks lose market share to P2P lenders

Figure: Share of Loan Volumes by State



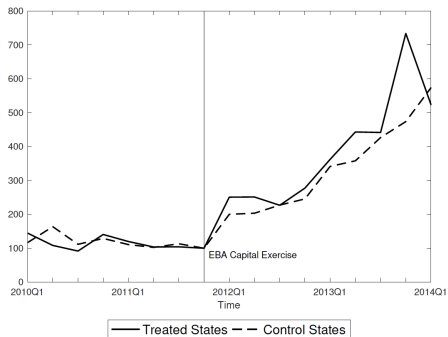
Parallel Trends look great

Figure: Lending by Banks over Time



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Figure: Lending by Auxmoney over Time



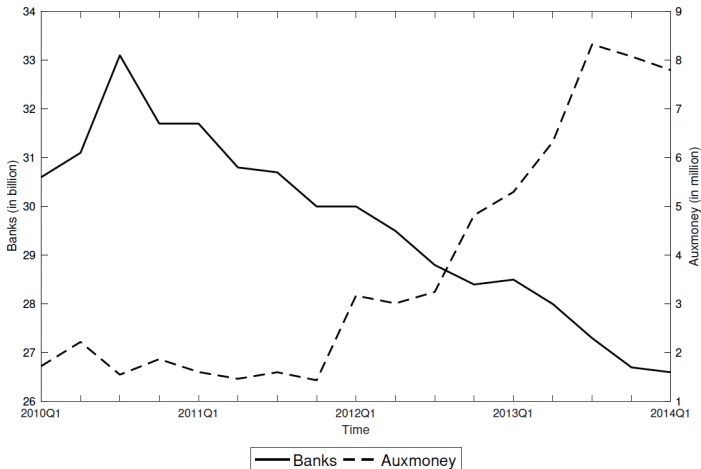
So heterogeneous demand was unlikely at play

- Great theory
- Rare data on both P2P lending and bank lending
- Good preliminary evidence

But much more should and can be done to rigorously test the theory

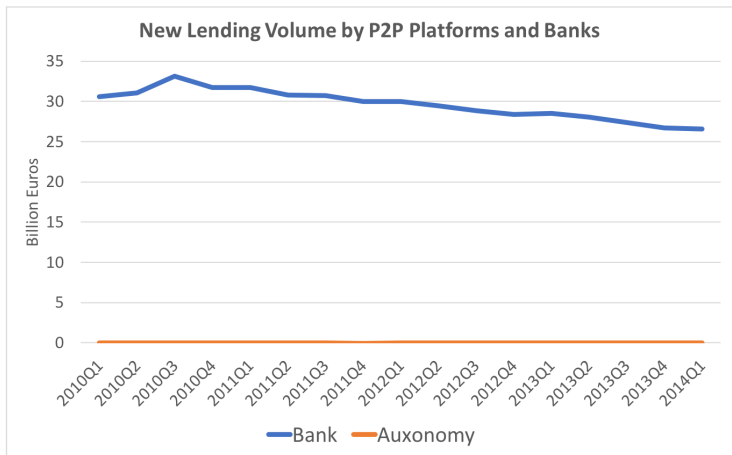
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Big picture:



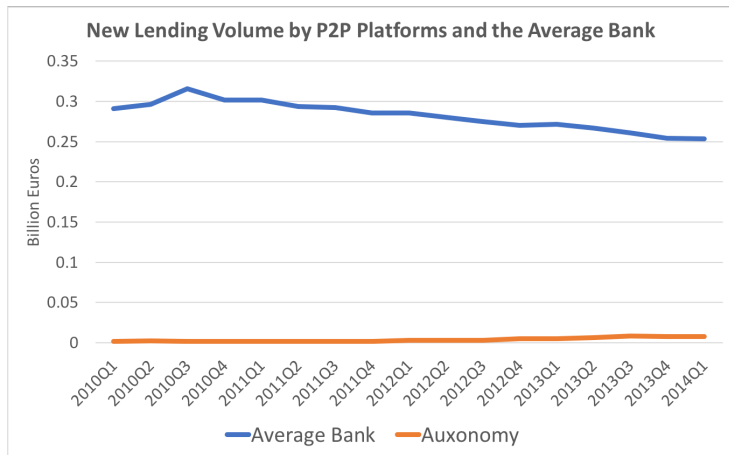
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Re-plotted on the same scale:



Are they competing in the same market?

Re-plotted on the same scale, for the average bank:



Concern: are these banks competing in the same loan market?

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Figure: Distribution of Loan Volumes

	Banks	Auxmoney
	L^b	L^{P2P}
Mean	90,512,570	252,089
Std. Deviation	86,890,540	292,034
25 th pctl	44,151,000	85,503
50 th pctl	68,470,000	160,022
75 th pctl	106,767,000	297,367
# Obs	6,512	590

Recall: Competition for the same set of loans is maintained in theory

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Figure: Online Description of Auxmoney:

Beste Chancen

Da bei auxmoney nicht nur der Schufa-Score entscheidend für die Kreditvergabe ist, kann auch Personen ein Kredit ermöglicht werden, die von der Bank abgelehnt werden. Hierzu gehören vor allem Selbstständige, Studenten oder Freiberufler. Die über 50.000 privaten Anleger bieten Ihnen 50.000 Chancen auf einen Kredit – mehr als Ihnen jeder Kreditvergleich bieten kann.

” Because we not only consider the Schufa-Score in our decision, successful borrowers include many who were denied loans by banks...”

Source: <https://www.auxmoney.com/kredit>

Proxy for Awareness of P2P Lending

Model prediction: the lower the cost of poaching loans from banks, the larger the effect of the regulatory capital requirement on market shares

Empirical test: the cost of poaching is lower when investors in a given state are more aware of the P2P market, which is parametrized by Google search history of related terms

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Do people really search because they are more aware? Or do they search when they have a demand for loans?

The proxy is likely contaminated by the very same thing the diff-in-diff tried to eliminate - heterogeneous loan demand. How to rationalize the parallel trends and the significance of the Google search variable?

Result II & III: P2P loans are riskier and have a lower risk-adjusted interest rate than bank loans

Empirical test: difference-in-means tests and panel regressions with fixed effects

How do we know that these are driven by the model mechanism and not alternative channels?

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Alternative explanations:

- Riskiness: Banks who are too risky or too small are not accepted at banks and resort to P2P loans
- Risk adjusted interest rates: Fintech lowers cost of monitoring

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Implications would be different

- In the model, P2P lending redistributes the provision of financial intermediation
- Under the alternative, P2P lending
 - widens the scope of financial intermediation to include more opaque borrowers
 - provides financial intermediation at lower cost
- Welfare and policy implications would also be different

Important question + great model based on seminal banking theory

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Should make sure that empirics are testing both the results and the channel of the theory

- 1 Are banks and P2P loans substitutes or complements?
- 2 Proxy for Awareness of P2P Lending
- 3 Differences in riskiness and risk-adjusted interest rates

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- 3 Differences in riskiness and risk-adjusted interest rates
 - Derive the *marginal* effect on riskiness and risk-adjusted interest rates by a *shock* in regulatory costs
 - Use the same diff-in-diff strategy to provide a tighter test