The geography of mortgage lending in times of fintech

Discussion by Sebastian Doerr (BIS)

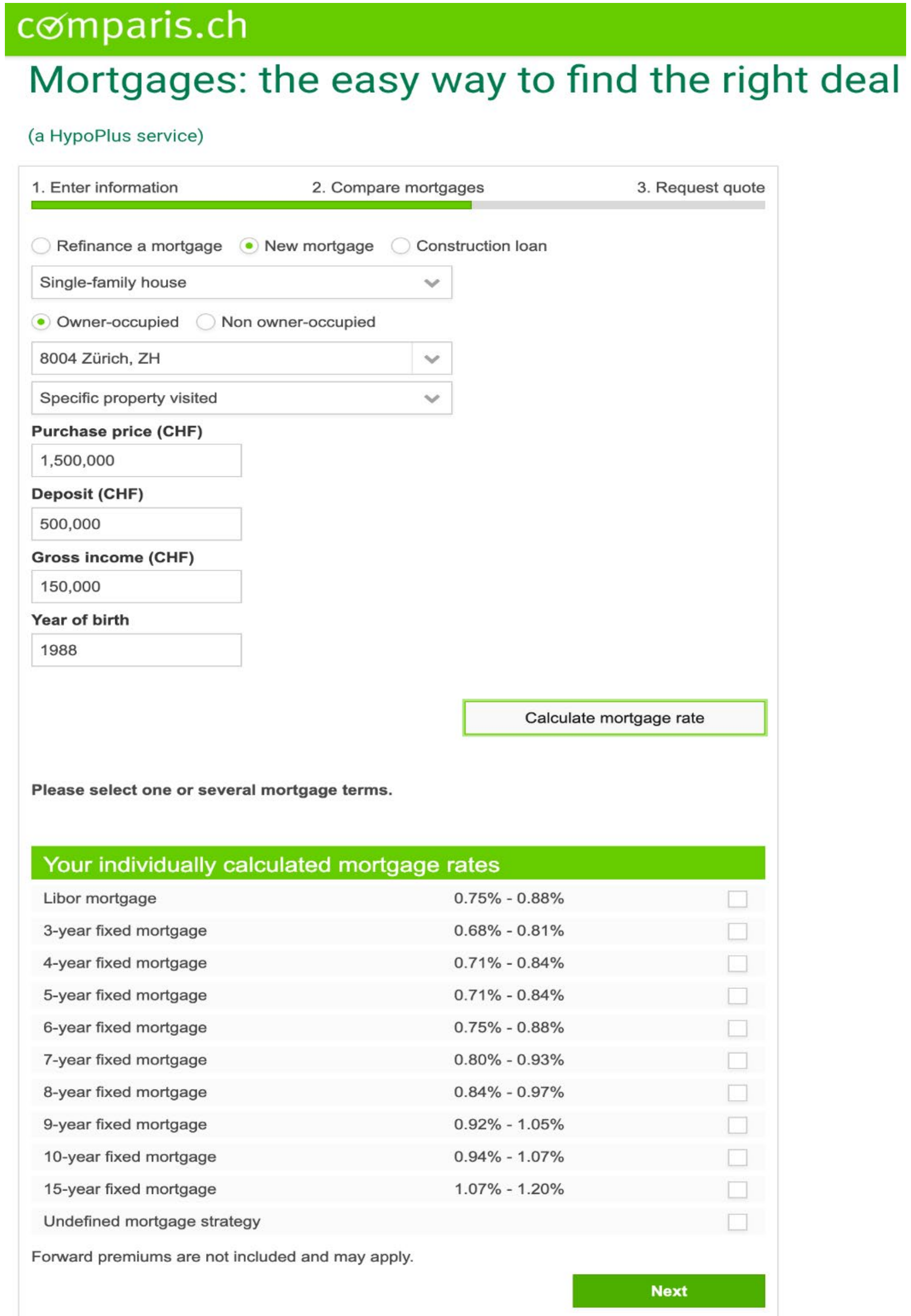
Financial innovation: Implications for competition, regulation, and monetary policy (September 2020)

The question(s)

- How does the entry of a fintech mortgage platform affect banks' geographical footprint?
  - What's the role of local competition?
  - Do banks diversify their portfolio?
  - Does it affect the relative value of hard information?
- Use detailed information on online mortgage applications to a online mortgage platform in Switzerland
  - Granular data allows to disentangle demand and supply
  - Key: multiple offers by different banks for the same borrower – pretty unique in HH setting, usually only available for firms (see Khwaja and Mian AER 2008)

The setting: Switzerland

- Entry of *comparis.ch*, an online platform to apply for mortgages
  - HH applies for mortgages (for a fee)
  - Gets offers from **several** banks (important for identification)
  - Applicant’s name is secret, so **no soft information** revealed
  - Offers differ in rates and maturity
- Sample
  - 2010-13 for 26 cantons and 27 (?) banks
  - 7,000 applications, 25k responses (5k denied)



Key Findings

- 1. Competition
  - Banks are more likely to make an offer in low-competition areas
  - Conditional on making an offer, banks offer lower interest rates in low-competition areas
  - Indirect evidence that this could reflect the expectation of follow-on business in the form of cross-selling
- 2. Diversification
  - Banks are more likely to make an offer to borrowers in cantons that move counter-cyclically with the banks' home canton
  - They also offer lower rates to these borrowers
- 3. Automation
  - Banks are more likely to automate decisions for low-risk borrowers, if the bank is larger, or if the bank has used comparis.ch more

H1: Is there cross-selling?

- H1: “Banks are more likely to offer, and offer lower prices, the more concentrated the local mortgage market has been so far”
  - Banks offer <u>cheaper</u> mortgages in more concentrated markets
- Argument:
  - Banks want to poach customers and then compensate via cross-selling of products
  - Follow-up business is expected to be more profitable in concentrated markets
- Friction: switching costs
  - Switching costs prevent customers from shopping for the best deal, instead they buy a “bundle” of banking services

H1: Is there cross-selling?

- Would like to see more evidence:
  - Do customers that take a mortgage from UBS via comparis.ch actually switch from CS to UBS?
    - Could be that they just take the cheap mortgage but stay with main bank for other services
  - Is pricing of other products (credit cards etc) actually higher in more concentrated markets?
    - What is the correlation in concentration across products? Could be that market is concentrated in mortgages, but not in auto loans or credit cards
- Is this actually related to fintech?
  - If we assume that there is more money to be made in concentrated markets, banks could also open a branch/offer mortgages there offline
  - Fintech reduces switching costs for mortgages, but not other services. Shouldn’t this lead to unbundling, rather than “migration” of service bundle?

H1: Computing the HHI

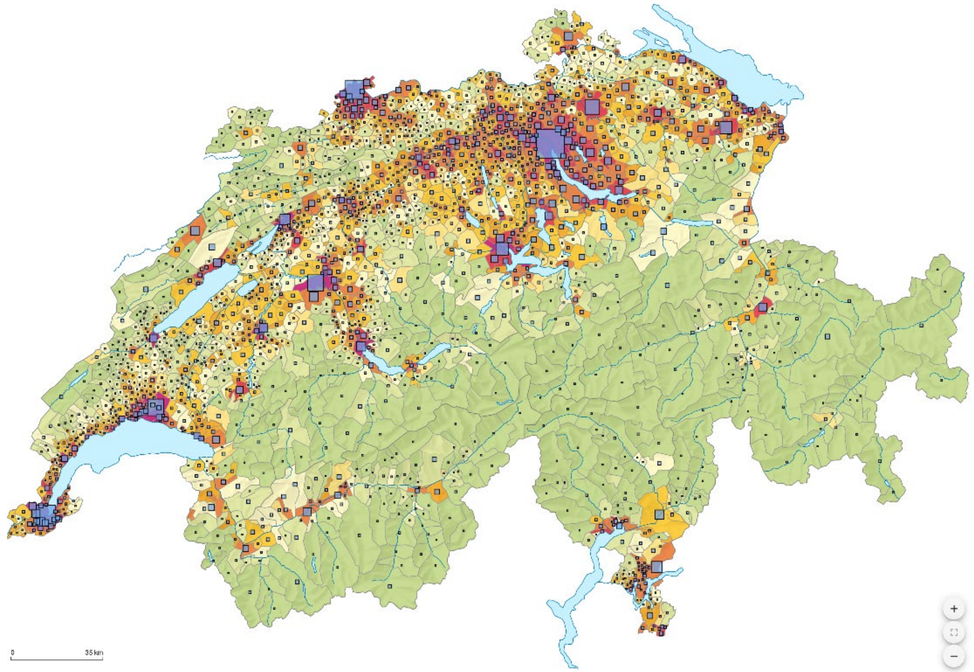
- Q: What is the effect of local competition on banks' online offers? Compute HHI
  - Presence of a bank in canton and its online behaviour when screening applicants could be explained by unobservable factor (eg concentrated cantons contain low-quality borrowers)
- Instrumental variable strategy
  - UBS and CS suffered losses in US, had to reduce mortgage lending in Switzerland
  - Use UBS and CS pre-shock market shares as IV for actual concentration
- Assumption
  - "the same reduction in UBS' and CS' mortgage lending had [...] a relatively larger impact on competition intensity in cantons in which [they had] a larger share of the market"
  - Is this true? What if the big two consolidate their business towards high market-share areas? The decision where to reduce lending could still be strategic and subject to the same unobservables – provide evidence that UBS and CS cut back uniformly/more?

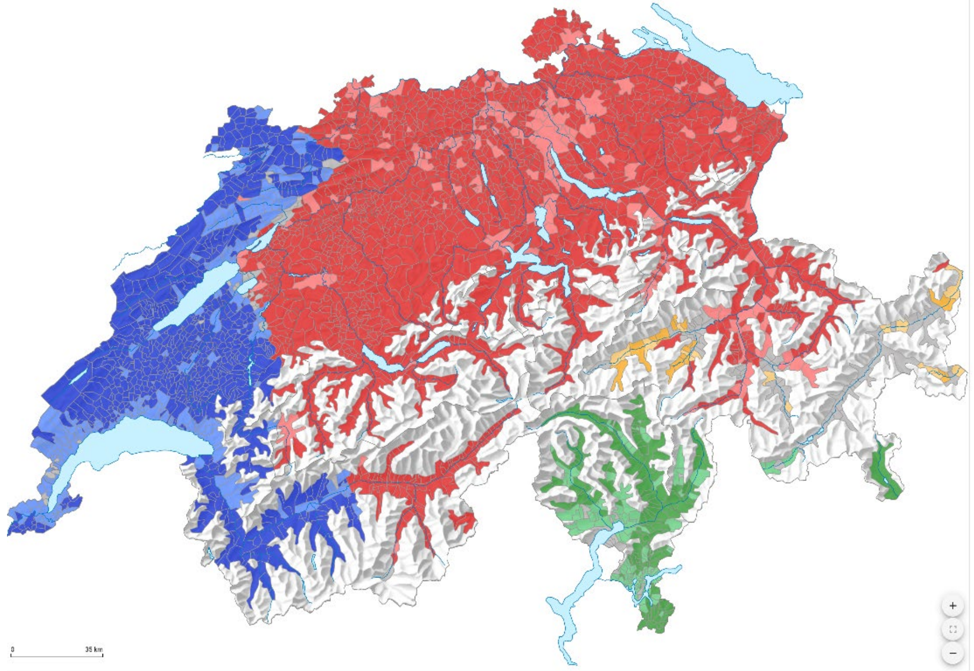
H1: What is a market?

- Concentration is measured at the cantonal level (26 cantons)

H1: What is a market?

- Population density varies dramatically across cantons
  - Within the same canton, often more than one language spoken
- Is more granular data available to compute HHI by district or municipality?
  - Otherwise, focus analysis on the more densely populated cantons?
  - Control for population density?
  - Break down cantonal HHI by district population?
- Further:
  - Is HHI based on universe of Swiss banks or just 27 banks in sample?





Diversification vs distance

- The paper motivates the section on diversification by highlighting the importance of distance
  - Distance affects pricing (Degryse and Ongena), banks specialize locally (Loutskina and Strahan)
  - Yet, the paper does not investigate the importance of lender-borrower distance at all!
  - Instead, focuses on co-movement of unemployment rates
- Argument: in the Swiss comparis setting, banks only have hard information, so arguments based on soft info do not matter
  - But this should be tested/shown!
  - If comparis makes distance irrelevant, P(offer) and offered rate should be similar for
    - Banks that have a branch/no branch close to the borrower
    - Banks that have their HQ in the canton of the borrower
    - etc

Diversification: economic relevance

- Empirical result: banks lend more to cantons in which unemployment is less correlated with unemployment in their home canton
  - Claim: “This allows banks to improve the risk management of their mortgage portfolio”
- Is comparis used to diversify?
  - How big is the volume of mortgages extended via comparis relatively to total bank mortgages?
  - What share of mortgages is extended outside of the home canton for the average bank? The average bank excluding the 3-5 largest?
  - What fraction of total mortgages loans is done via comparis to borrowers outside the home canton?

➢ Paper needs to convince the reader that the loan amounts on comparis are non-trivial

The title and abstract

- Title is "*The Geography of Mortgage Lending in Times of FinTech*"
- First line of abstract is "*How does banks' geographical footprint change when a FinTech platform allows offering mortgages to regions without branch presence?*"

- However: this paper is not really about banks' geographical footprint
  - No analysis on share of mortgages in non-branch counties, decision to lend to non-branch counties etc, banks' geographic expansion etc
  - Rather, the paper analyses the loosely related topics of *competition* and *risk sharing* and *automation*
  - Paper could benefit from a clearer focus on one specific question and organize the discussion along this topic

Other comments/questions

- How does comparis' selection process work?
  - Are all banks contacted or just some?

1. Enter information 2. Compare mortgages 3. Request quote

Mortgage via HypoPlus - independent, without obligations and free of charge

- Our mortgage specialists analyse your individual situation
- We contact and consult you on the phone or in person in Zurich
- Based on your documents we negotiate the best offer for you

Does comparis select soft info and then select banks accordingly?

- What's the purpose of comparis?
  - Pay 100 CHF, get 10 offers, pick cheapest one?
  - Pay 100 CHF, get 10 offers, go to my offline bank and ask for an offer that matches the cheapest online offer? How many of the offers (by banks that are not the borrowers' bank arealdy) are accepted?

Other comments/questions

- Selection into comparis: seems like 27 banks are part of the sample, but 180 banks are used to construct some indices
  - What determines whether a bank joins comparis.ch?
  - Provide a balancedness table of banks that joined vs those that did not join?
- Provide aggregate statistics:
  - Number/volume of total new mortgage applications vs total comparis applications?
- Clustering: regional explanatory variables, but no regional cluster
  - Cluster at bank#canton level?

Conclusion

- Great paper
  - Unique data on households with offers from multiple banks, which allows for clean identification
  - New insights on how fintech interacts with (regional) competition among banks

- Needs more work on channels:
  - More evidence on IV for HHI and evidence for cross-selling
  - Does diversification through comparis.ch really matter?
    - Seems to be rather small in volume compared to total mortgages
    - What is the role of distance?
  - Could benefit from a clearer focus (ie investigate the effect of the entry of FinTech on banks' geographic footprint)