The Industry Expertise Channel of Mortgage Lending

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Discussion by

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This paper: links between mortgages & corporate lending

- **Main result:** banks issue more mortgages when they specialize in lending to a prominent industry employer in an area $\longrightarrow$ better screening through soft info

- Cannot observe soft info use directly, so do five sanity checks for mechanism

  1. Channel strength $\uparrow$ with distance between bank HQ and borrower county ✓
  2. Expertise matters more if riskiness of borrower pool is greater ✓
     - ★ Proxy for risk by county house price σ and borrower LTI
  3. **High deposit beta banks securitize loans, so rely less on channel** (✓)
  4. Better screening $\implies$ dispersion in loan size and LTI $\uparrow$ ✓
  5. Channel $\implies$ return on residential mortgages $\uparrow$ and NPL rate $\downarrow$ (✓)
     - ★ Bank-level analysis: improve later using loan-level IRR measures from BKMD

- **Clever tests given that information acquisition/use is unobservable!**

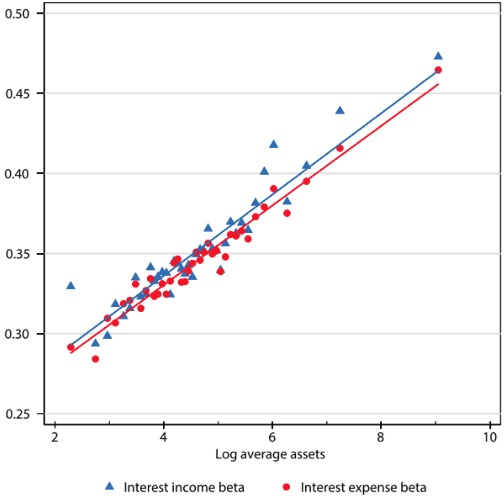
What this paper is not about...

- **Idea:** private info about a company through extending credit allows bank to better forecast employees' income
- $\implies$ might help the bank price/originate mortgages linked to corporate client
- Example: Citibank + JPM helped Enron hide its true financial conditions
- It took me awhile to realize that the paper was <u>**not**</u> arguing for this story!
  - Add minimal working example to intro
- But the Enron story is compelling, so why is that not the paper?

Comment #1: economics behind the expertise channel

- Authors provide some evidence against the Enron channel in the Appendix
  - Main results for mortgage originations go through and are quantitatively similar when drop Dealscan lead lender-Compustat borrower pairs
  - Show also for pricing rather than just for originations?
  - Individual firms' info would be more valuable for privately held clients: $\longrightarrow$ **Orbis merge?**
- **Average treatment effects vs. intent-to-treat effects**
  - Authors refer to banks as "using" soft local industry info to price/originate mortgages
  - Within a bank, does the average mortgage loan officer have access to info about the composition of corporate clients? Or, is this "around the watercooler?"
  - **Heterogeneity:** smaller banks more vertically integrated, so more scope for officers to use full info set for mortgage screening $\longrightarrow$ are these the low securitization beta banks?

Small banks more likely to internalize mortgage risk



Source: Drechsler, Savov, Schnabl (2021): "Banking on Deposits: Maturity Transformation without Interest Rate Risk," *Journal of Finance*

- Average ratio of expense beta to income beta is 1
- $\implies$ "maturity transformation does not generate interest risk" due to deposits
- How does this pattern look for your sample of mortgage lenders?
- Securitization incentive weaker if $\beta^{Exp}/\beta^{Inc} > 1$ (selection)
- Tell us more about who these banks are and report both betas, or do conforming vs. non-conforming loan split

One interpretation: consumer financial protection laws

What information do I have to provide a lender in order to receive a Loan Estimate?

Since October 3, 2015, loan officers are required to provide you with a Loan Estimate once you have provided certain information.

Loan officers are required to provide you with a Loan Estimate once you have provided:

- your name,
- your income,
- your Social Security number (so the lender can pull a credit report),
- the property address,
- an estimate of the value of the property, and
- the desired loan amount.

Your loan officer cannot require you to provide documents verifying this information before providing you with a Loan Estimate.

You can choose to give more information. The more information you can provide the loan officer about your financial situation, such as debts and nonwage income sources, the more accurate the information on your Loan Estimate is likely to be. Your Loan Estimate will also be more useful for you if you tell the loan officer what kind of loan you are interested in. You may want to let your loan officer know whether you are interested in:

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- **CFPB:** applicant doesn't have to provide any employer-specific info (unless on W-2)
- In practice: officer interviews applicant and can ask about their work and idiosyncratic risks (lawsuits, divorce)
- Equal Credit Opportunity Act: cannot ask about health or pregnancy
- Officers have quota or volume commission that varies across banks
  - State-level variation in consumer protection laws taken out by FEs

Filling in the first stage using refis

- Use **refinancing events** to isolate the strength of the screening/updating that occurs via industry expertise
- Idea: refis allow HH to voluntarily update their info on file with (typically the same) bank by applying for a new loan $\longrightarrow$ credit inquiry, income verification, etc.
- **Hypothesis:** industry expertise channel should be weaker for rate refis because sample is very positively selected towards borrowers who...
  - Are not liquidity constrained (can pay closing costs)
  - Are financially savvy (e.g. Amromin, Bhutta, Keys 2020 *ARFE*)
  - Have not experienced adverse shocks to credit score/income or debt service
- Match borrowers using characteristics across loan apps in (confidential) HMDA or BKMD

Comment #2: relaxing parametric assumptions

- Primary goal is to show that industry expertise matters (two steps):
  1. Coefficient signs point to banks screening mortgage applications on soft info
  2. Industry of borrower helps predict far future income risk

- But we also would like to know whether this channel is important
  - Headline result: "expertise" $\Longrightarrow$ 5% inc. in bank mortgage lending

- **Many parametric assumptions baked into this result...**
  - Cutoff parameters at bank and bank-county level (3D heat map)
    - (i) Bank has industry specialization if $>$ 75th pct $+ 1.5 \times$ IQR
    - (ii) Industry expertise if (i) $+$ that industry provides $>$ 5% of jobs in county
  - Discretization of expertise measure into bins? $\longrightarrow$ are effects completely driven by banks lending to one or two locally dominant industries?
  - Show results without bad controls (e.g. loan characteristics)

Link the empirical analysis more directly to the thesis

To assess a borrower's income level and stability, banks often ask for employment and income records within the last two years. However, this one-time information collection cannot capture the changing income and employment status after mortgage origination.

– Introduction, first paragraph

$$Y_{j,t} = \theta_j + \tau_t + \sum_{k=0}^{N} \beta_k \cdot SalesGrowth_{j,t-k} + \delta' \mathbf{X}_{j,t} + \varepsilon_{j,t}$$

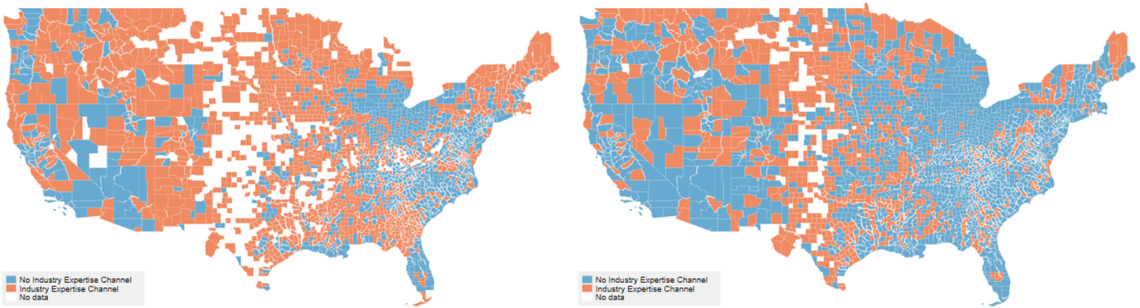
- For Y as income growth, include a longer lag order k given that contemporaneous predictability of industry sales growth is not as useful as $k > 2$

Comment #3: specialization vs. geographic concentration

- **General point: regional banks mechanically will have some industry expertise**
  - Fixed effects are likely partially collinear: bank $\times$ state $+$ county $\times$ year $+$ bank $\times$ year
  - If banks do specialize, then wouldn't we expect the bank and location FEs to be fairly similar? $\longrightarrow$ contingent on parameterization of expertise
  - Need to convince us that this is about GM's bank lending to auto workers in non-GM plants located outside Detroit $\longrightarrow$ minimal working example?
- **What else might help separate location from specialization?**
  - Event studies around distress events comparing firms w/large vs. small concentration in area
  - What happens when GM closes a plant? Do banks in the same place stop giving out mtg loans relative to a bank loaning to GM but located elsewhere?
  - Problem: need plant locations $\longrightarrow$ Dun & Bradstreet or NETS to DealScan merge
  - Can then also do things like granular IV (Gabaix & Koijen 2020)

Add a continuous version of this nice map?

(A) (B)



- Also, why does Midwest lose its banking expertise in 2003 (Panel B) but it reverts back to the 1997 map by 2009?
  - Midwest concentration consistent with a GM-type regional banking story

So, what do we learn from this paper?

- **Industry expertise:** clearly some strong links between concentration of banks' loans to local industries and mortgage origination + screening ability
- Results appear robust but not entirely clear how to interpret them
- Need to clarify how bank employees would use information related to the bank's industry specialization but **not** directly related to the fortunes of any one company
  - Most plausible channel: **interviews with applicants**
  - Do consumer protection laws play a role?
  - If not, then why wouldn't a bank use individual firm-employee links to approve loans?
- Could be a classic paper taught in real estate finance courses to illustrate why students need to learn about both consumer and corporate debt markets!

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THANKS!