The Deposit Business at Large vs. Small Banks by d'Avernas-Eisfeldt-Huang-Stanton-Wallace

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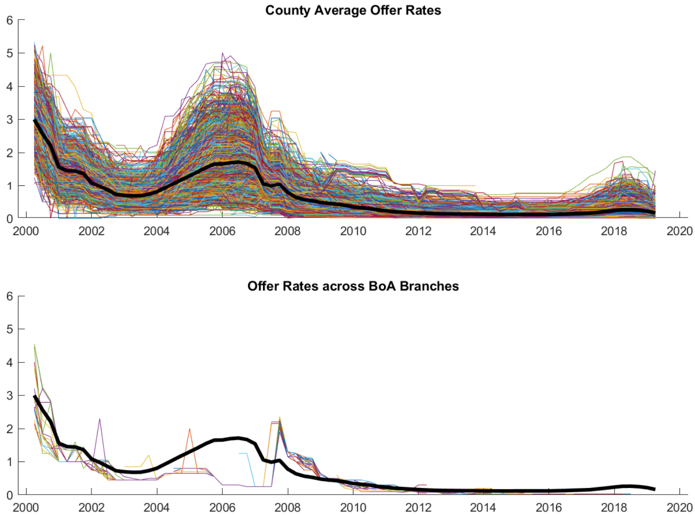
Stanford GSB & NBER & CEPR

Motivation:
Large XS Deposit Rate Variation & Little Within Variation



Summary: What explains banks' deposit rate choices?

- Stylized facts
  - Large banks set low, uniform rates (RW data), urban areas
  - Small banks set higher rates, dominate rural areas
- Discrete choice model to understand drivers of banks' rate policies
  - Local deposits are offered by diverse banks; large banks provide extra services and operate in multiple markets.
  - Depositors vary in their interest in fin services & earning $s_{j,k}$.
  - Key prediction: a market's spread semi-elasticity determines competitive conditions and spreads
  - Estimation: rates (call reports) & mkt. characteristics
  - Novel Results: Larger banks operate in lower semi-elasticities markets. The rich less rate sensitive rel. to the poor
- Sum: competitive conditions determined by preferences & tech

Discussion

- Interesting set of stylized facts that validate results of earlier studies (e.g., Granja & Paixoa 2022, Begenau & Stafford 2023)
- Contribution:
  - Identification of drivers of banks' rate setting policies by size
  - Key drivers are heterogenous preferences and technology
- Discussion
  - Evidence for uniform rate setting
  - Rate level and sensitivity at large and small banks

Uniform rate setting evidence

Uniform Rate Setting is Widespread

	MM	CD	MM	CD
	Small Reach Banks		Large Reach Banks	
	(1)	(2)	(3)	(4)
R^2 Qtr	0.65	0.89	0.56	0.90
R^2 Cnty-Qtr FE	0.70	0.92	0.60	0.90
R^2 Bank-Qtr FE	0.98	1.00	0.95	0.99
R^2 BQ-CQ FE	0.98	1.00	0.96	0.99
N	463,820	482,250	528,870	556,880

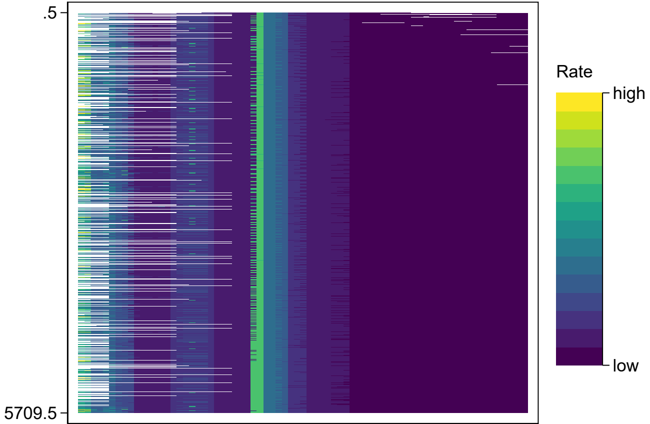
Source: Begenau-Stafford 2023

- Rates are set at bank-level, local variation is small.

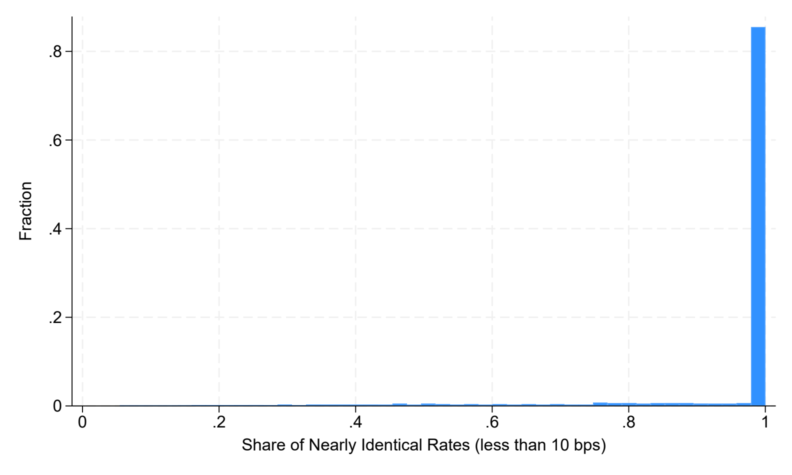
Offer rates at Branches of BOA from 2000-2020

- BOA branches sorted by size in rows, quarters in columns
- Same offer rate across branches given quarter
- Bigger branch update earlier

Figure 1: Rate of MM 25K



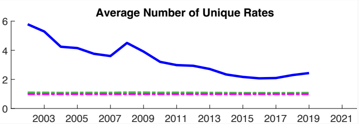
Across All Banks: Uniform Rate Setting Widespread

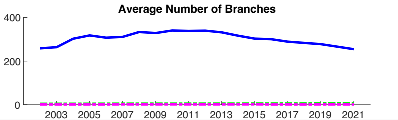


- Nearly identical rates across branches within a bank

Small & Money Center no Scope, Large Banks Uniform Rates

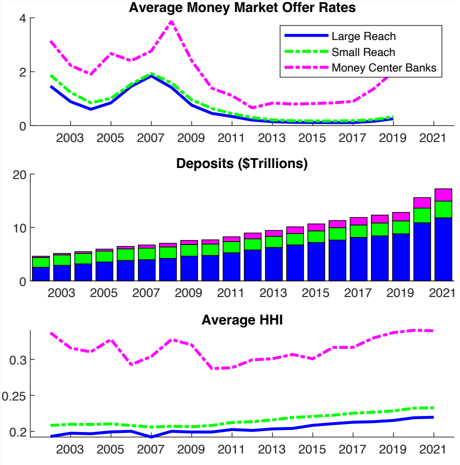
	Money Center	Small Reach	Large Reach
	Cross-Sectional Averages of Bank-Level		
Num Rate Setters	1	1	8
Num Unique Rates	1.0	1.0	1.5
Branches / Rate Setter	1.0	5.5	33.8
Branches / Unique Rates	1.0	5.7	175.7
Mean Offer Rate (MM)	0.97	0.16	0.06





Source: Begenau-Stafford 2023

Special Uniform Rate Setters: Money Center Banks



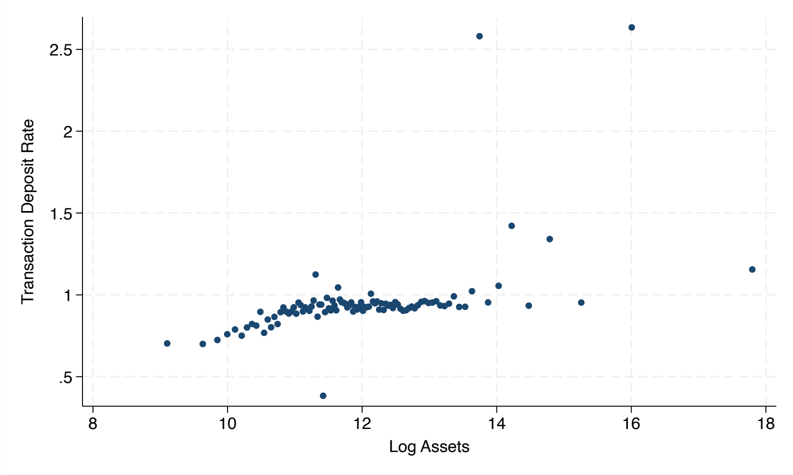
- Offer rates b/w small vs. large barely differ
- Money center banks are huge, single market, high rates, high HHI
- How does the paper deal with them in the estimation/empirical evidence?

Rate sensitivity at large and small banks?

Are the rich less rate sensitive and earn lower rates?

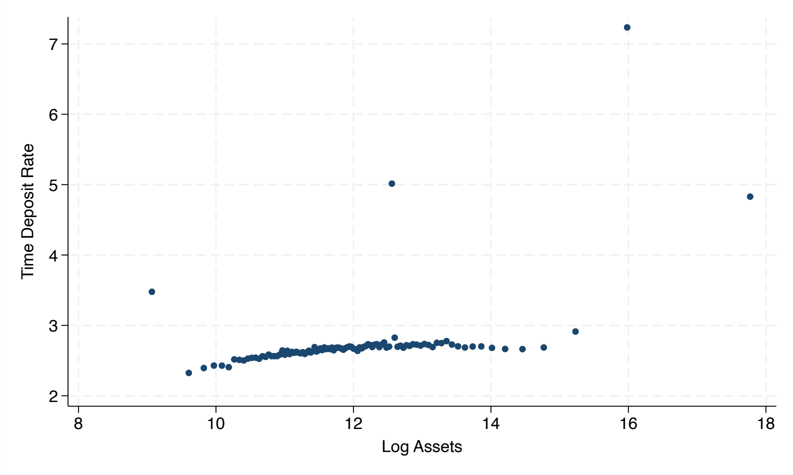
- Here the rich less sensitive to deposit rates, supported by estimation.
- Very interesting!
  - Contradicts the idea that high net-worth ppl, being more financially sophisticated, are more rate-sensitive.
  - If true: expect less impact of Δs_t^d on agg. ΔD_t
- Is this the case?
  - Ratewatch data (offer rates) says that given the same product, larger banks pay lower rates
  - RateWatch data also says that business accounts, accounts with high minimum balance pay more and adjust faster
  - Estimation sensibly uses call report (actual rates paid)
  - What about realized deposit rates from bank call reports?

Actual interest paid on transaction deposits increases in bank size (2000-2019)



- Binscatter includes quarter fixed effects

Actual rates paid on time deposits increases in bank size (2000-2019)



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Deposit composition matters

- Summary stats of size differences using RateWatch data suggests similar or higher rates
- Deposit composition affects actual rate levels and pass-through
- Ex: time deposit pass-through by construction limited

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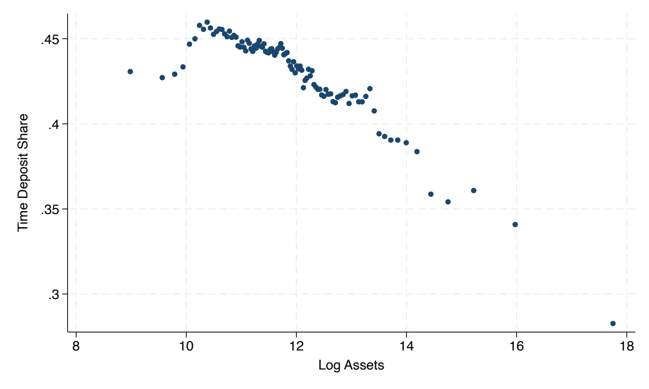
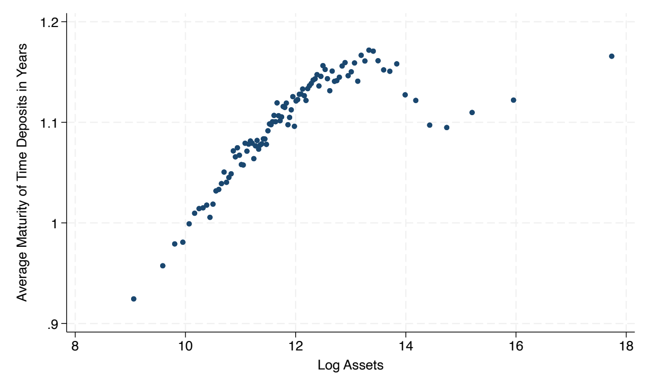
Lower time deposit share at larger banks, suggesting more rate sensitivity



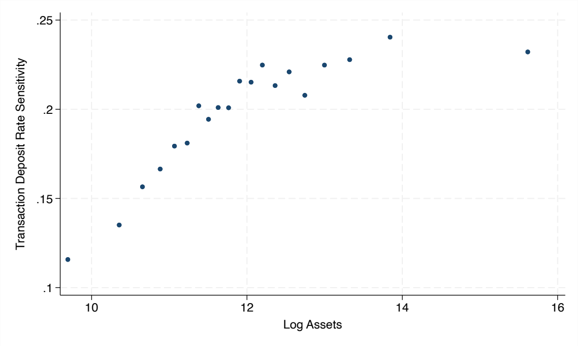
Deposit composition matters

- Contractual maturity increasing up to mid-sized banks
- May also suggest relatively higher pass-through at large banks



Transaction Deposit Rate Betas Increase Over Size

- Regress transaction deposit δR^d on ΔFFR and lags
- Deposit rate sensitivity is increasing in size



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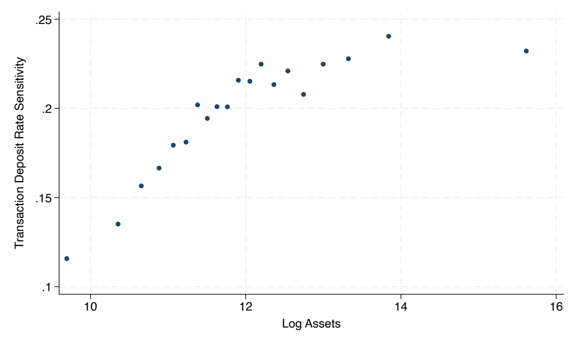

- Averaging over all products (call reports) larger banks pay higher rates and are more sensitive to changes in the FFR
- Suggestions:
  - show how your estimates are consistent with these simple stats
  - pin down drivers of semi-elasticities by focussing on transaction accounts

Improve connection between model and data

Model has many rich and interesting implications

a. On banks' market selection
  - Are large banks in rural areas different?
  - What are the circumstances under which large banks expand?
  - Note that the market selects the bank as much as the bank selects the marke
b. On role of technology
  - Connect to Koont (2024), Benetton et al (2024) and others: use of mobile app data usage to capture change in technology for some banks
c. On the role of preferences
  - What drives changes in the semi-elasticities of markets over time? E.g., Could estimate model on counties who experienced large/unexpected population increase
  - FE regressions show very little explained by county-qrt fixed effects, suggesting diminished role for local semi-elasticities as drivers

Conclusion

Very nice paper!

- Big step forward toward understanding how demand conditions matter for bank competition
- Contribution is understanding drivers of deposit business differences at large and small banks
  - Important to explore what drives results of higher rate sensitivity of less wealthy depositors / smaller banks
  - Call report data: higher rates and higher sensitivity at larger banks puzzling within the model

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  - Important to explore what drives results of higher rate sensitivity of less wealthy depositors / smaller banks
  - Call report data: higher rates and higher sensitivity at larger banks puzzling within the model
  - Different model (WIP Begenau, Elenev, Landvoigt)
    - Banks vary in deposit & asset productivity and choose size .
    - As here, productive banks pick larger scale
    - Larger scale drives down liquidity premium $\rightarrow$ higher rate.

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- Contribution is understanding drivers of deposit business differences at large and small banks
- Work in progress by Begenau, Elenev, Landvoigt