What Drives Depositor Heterogeneity? Customer Characteristics, Technology, and Bank Size

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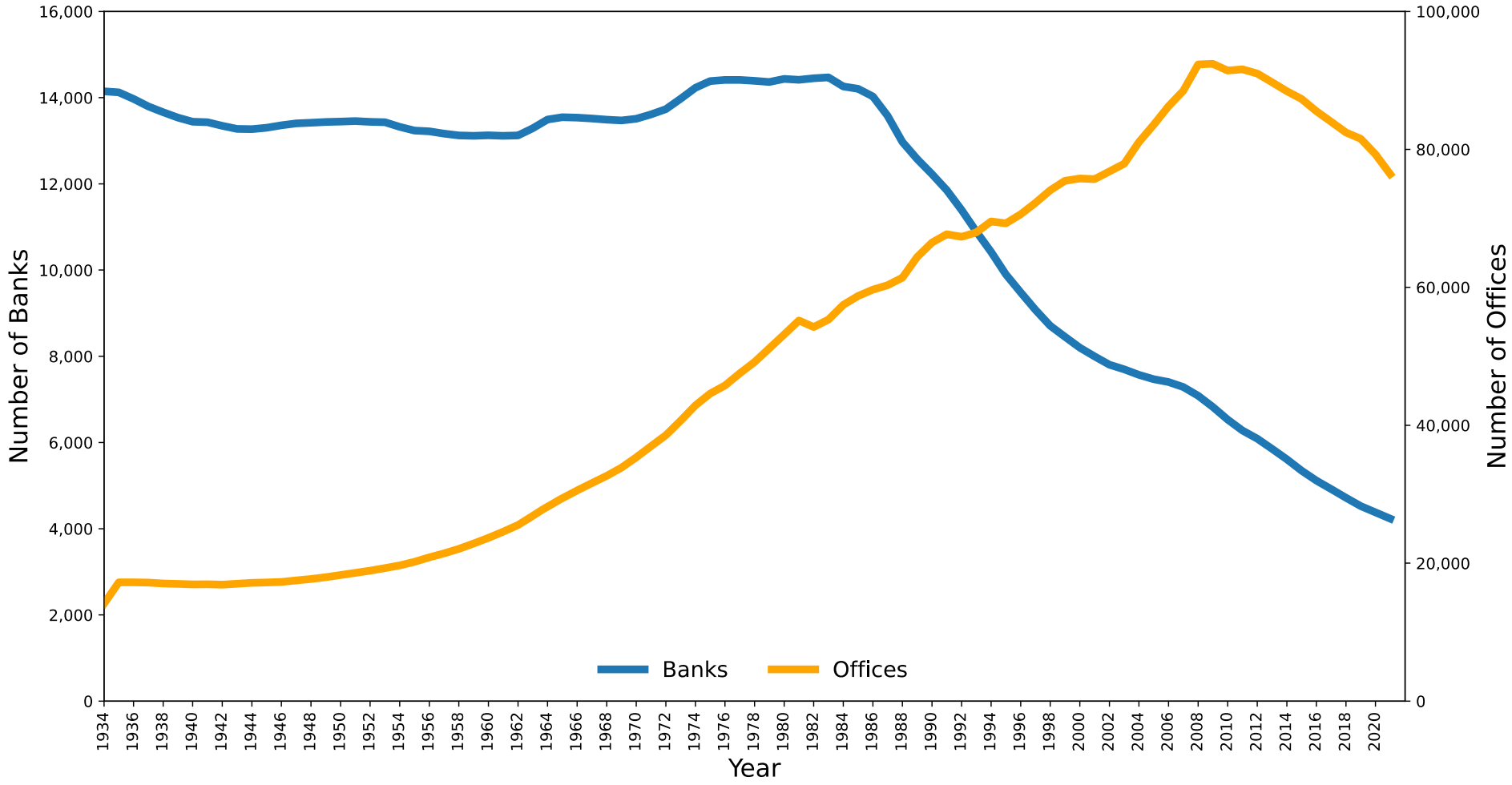
Some Basic Facts

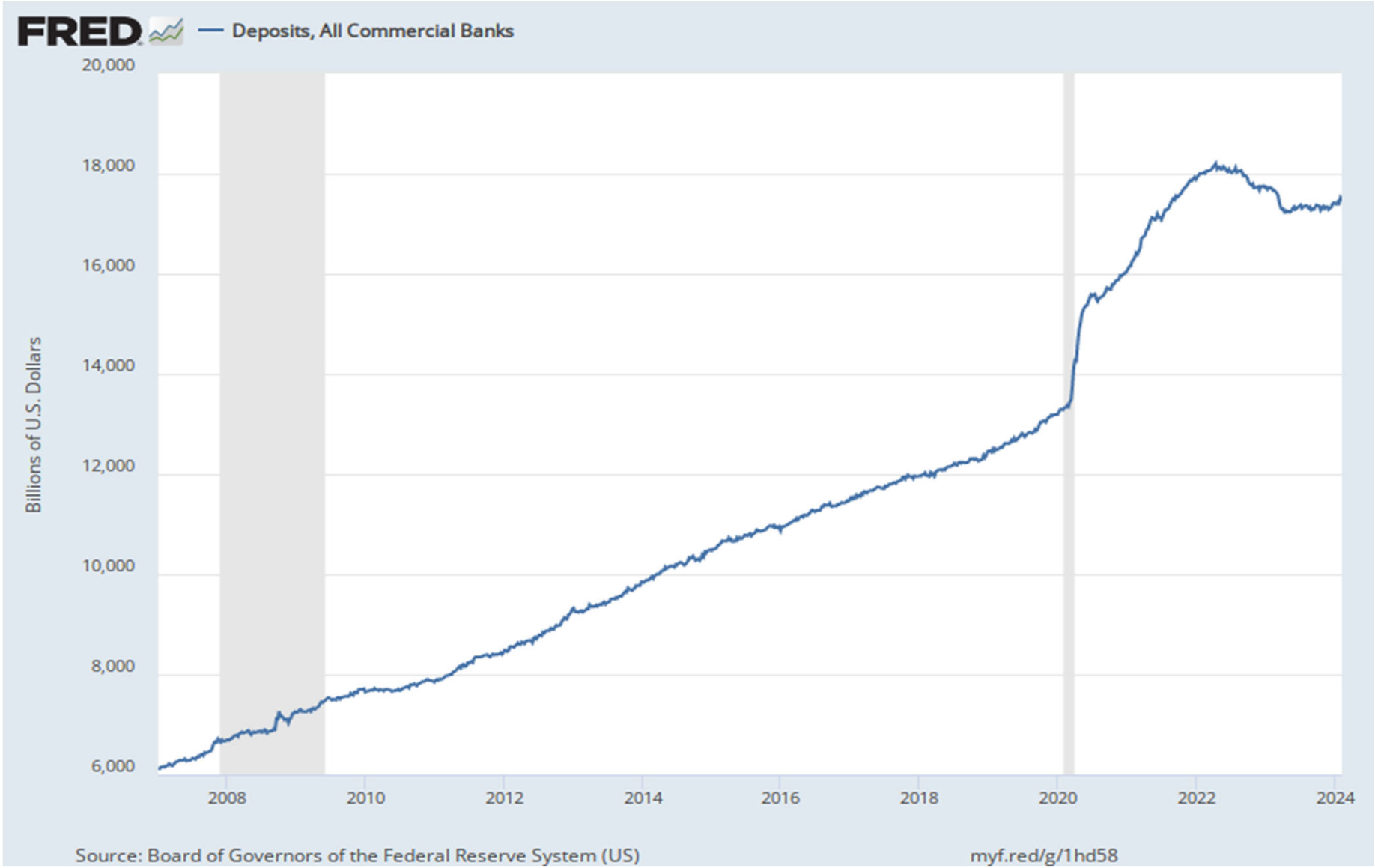
- Deposits have grown rapidly
  - As bank branches have started to crater
- Deposits declined when
  - Interest rates rose
  - And when SVB failed…
- But not that much (puzzle)!
  - How confident are we that this will continue?
  - Meanwhile, spreads have flattened out

Number of Banks and Branches

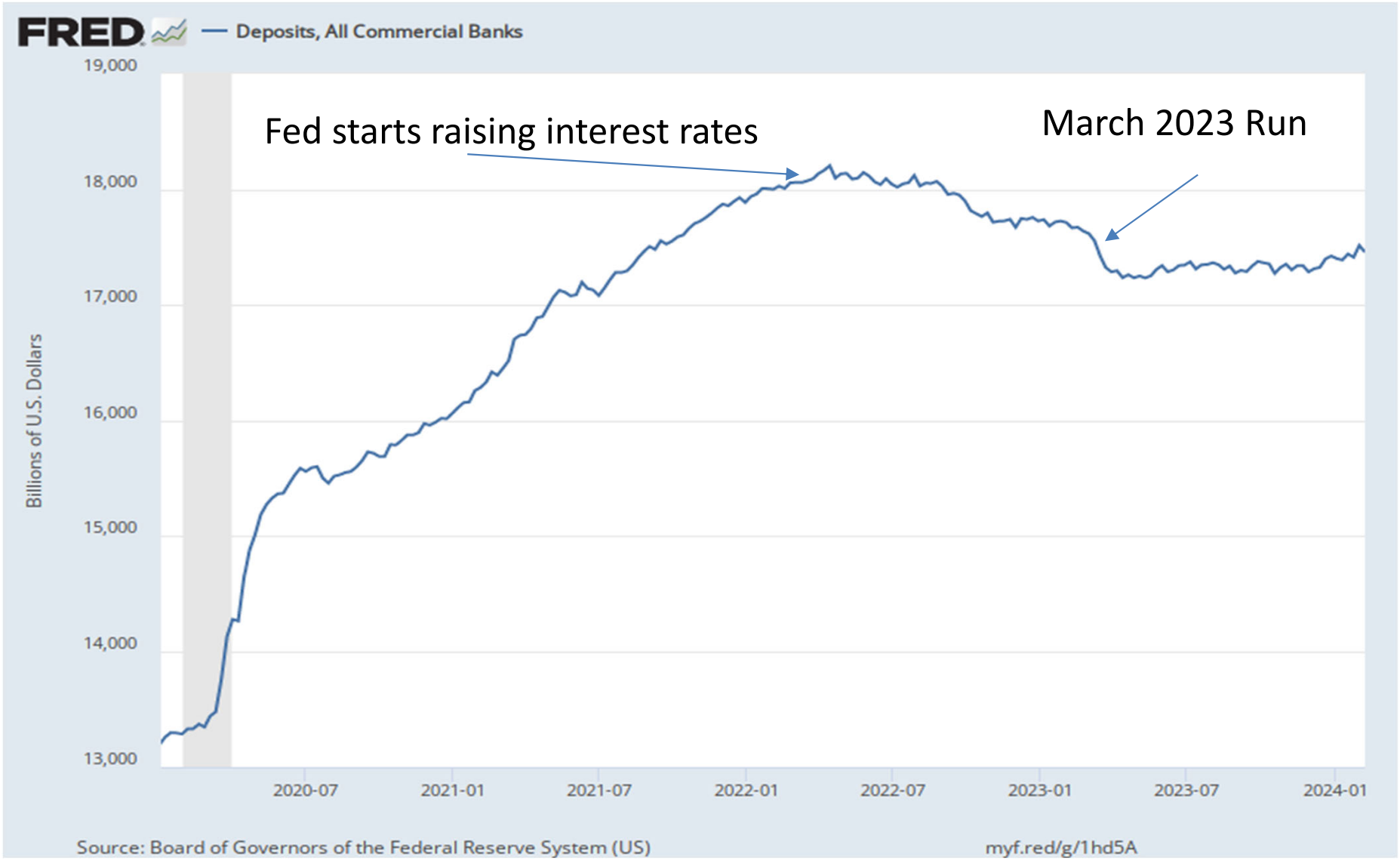


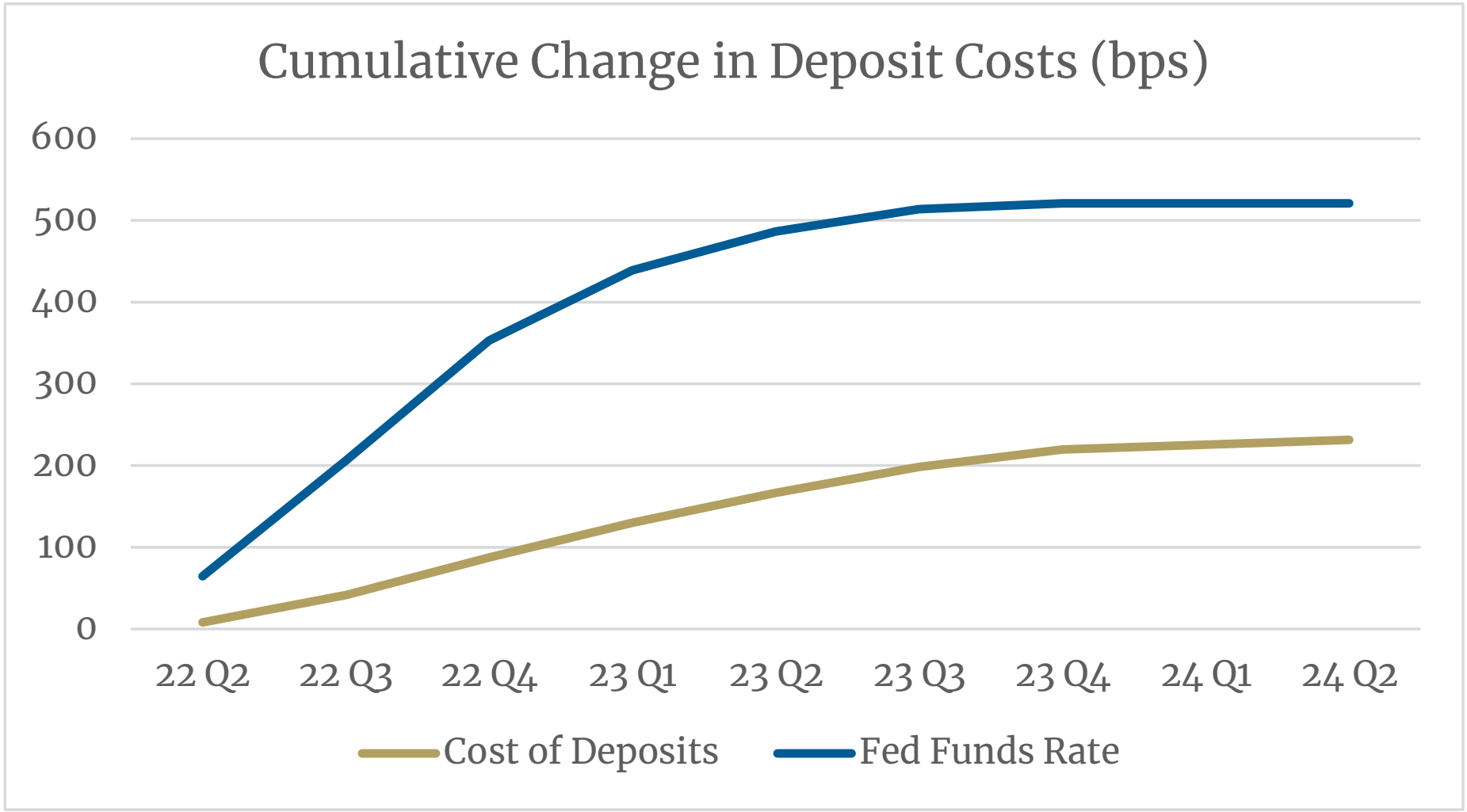
Source: FDIC

What about Deposits?



Deposits in Recent Years...

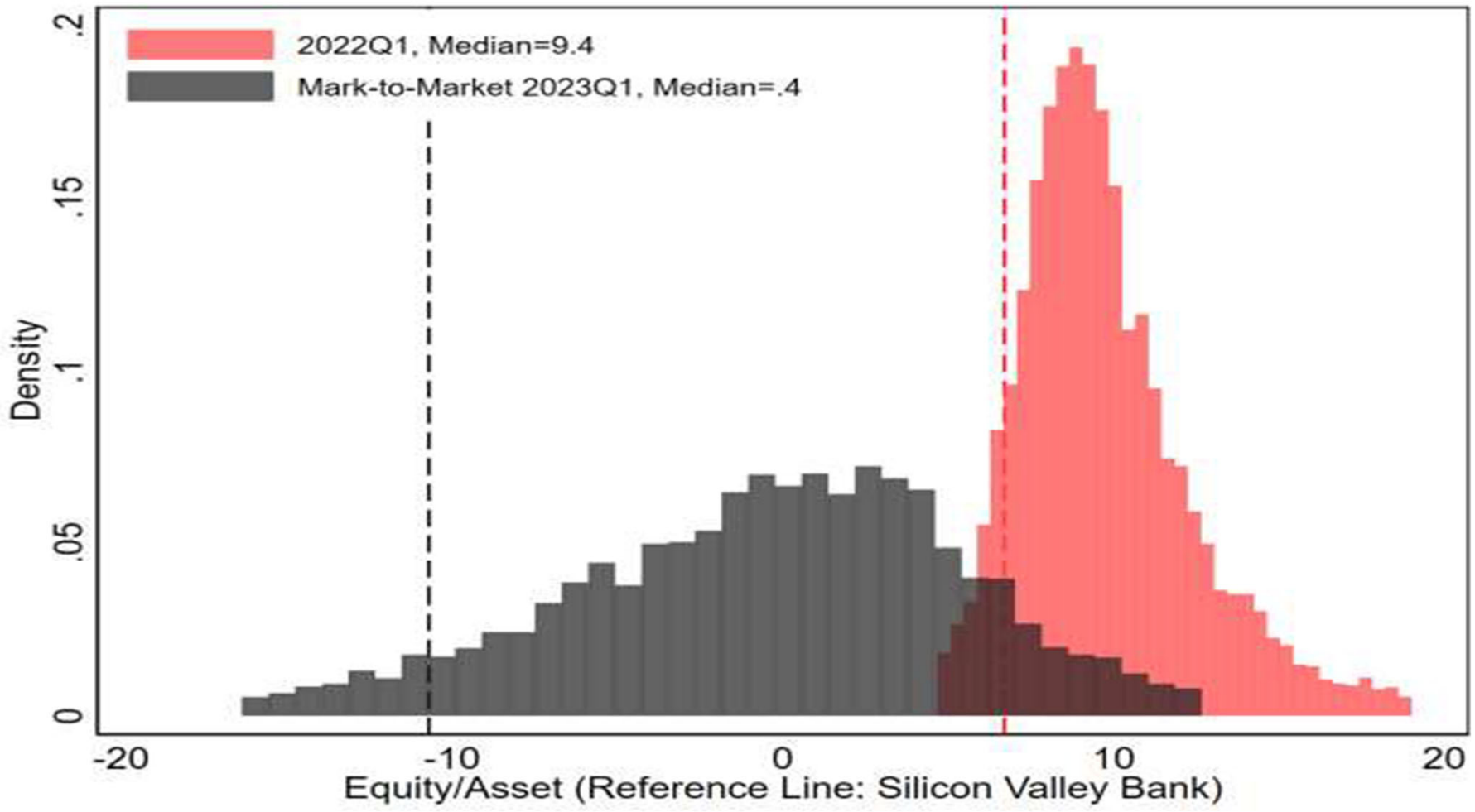



Cumulative Change in Deposit Costs (bps)
600
500
400
300
200
100
0
22 Q2
22 Q3
22 Q4
23 Q1
23 Q2
23 Q3
23 Q4
24 Q1
24 Q2
Cost of Deposits
Fed Funds Rate

Why is this an Important Topic?

- SVB crisis emphasized:
  - The importance of bank solvency
  - The fragility of the value of the Deposit Franchise

Many banks are insolvent!
(Ignoring deposit franchise value)



Source: Jiang et al., 2023

How Valuable is the Deposit Franchise?

- Drechsler et al. (2023) offer a simple framework:

$$DF = D(1-w) * [(1-\beta) - c/r]$$

$$r_d = \beta * r$$

- Two core issues
  - How much value is gained by underpricing deposits (how far is β below 1 – i.e., how inelastic is deposit demand?)
  - How stable/sticky are deposit (how close is w to zero?)

Key issues

- How does deposit franchise (DF) value vary across banks (e.g., large v. small)
- How does *stability* of DF value vary with bank-type and customer-type?
- How does technology affect DF level & stability
- (We already know how uninsured deposits affect DF stability…)

What are we learning from these papers?

- Large-bank customers are more sophisticated, urban, and tech-savvy (NR & Wallace)
- Large-banks pay lower rates on deposits (Wallace et al.)
- What about elasticity?
  - Wallace: Large-banks have lower elasticity (and **lower βs?)**
  - NR: Large-banks have **higher β**

Who's right?

- NR: Funding betas from 12/21 to 12/23
  - Combines/confounds two factors
    - Sharp increase in Fed Funds rate
    - SVB crisis / Bank runs

- Wallace: Elasticities measured over 2001-2019 period
  - Big changes over this time!
  - More analysis of changes over time
  - Add evidence from the post-Pandemic period

What else affects DF stability?

- Lu et al. suggest transaction cost reduce depositor 'sleepiness'
  - Fast transfer increases deposit turnover (i.e, raises w)
  - Raises sensitivity to interest rates (i.e., raises β)

- This seems to conflict with Wallace!

What else can these papers do?

- NR:
  - Separate the effect of interest rate change from the effect of bank runs
- Wallace:
  - Relate your elasticity measure to DSS-style estimates of deposit beta
  - Consider time-variation in elasticities!
- Lu et al.:
  - What kinds of banks are on your sample?
  - How does transfer behavior w.r.t. interest rate variation differ by customer type?

What else can these papers do?

- All:
  - Can you say something about the decline in bank branches
    - Customer type (NR & Wallace)
    - Size & deposit elasticity (Wallace)
    - Liquidity/transaction speed (Lu)
  - Does the demise of branching change deposit pricing behavior?

Conclusion

- For many banks, solvency hinges on the value of DF!
  - (Let's hope interest rates go back down…)
- So, we need to understand
  - What affects the value of DF?
  - What affects the stability of DF?
- These papers speak to these questions
  - But: we need more work on this topic!