Discussion of

"Bailing out (Firms') Uninsured Deposits: A Quantitative Analysis "

by N. Aaron Pancost and Roberto Robatto

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Overview of the Paper

- Novel stylized facts
  - “Uninsured” deposits are actually insured (ex-post) 94% of the time
  - Firms, not households, hold most of them
    - Partly because households with lots of deposits spread them out across banks or across account types (single, joint)
- Quantitative Macro Banking Model to study counterfactual uninsured bailout policy: what if none/all were bailed out
  - Mechanism related to authors’ previous paper which emphasized the importance of firm deposits for macroprudential policy analysis
  - Less insurance → riskier deposits → firm portfolio choice shifts away from deposits and towards riskier projects
    - Offsets the otherwise contractionary effect of removing the subsidy

Why you should read this paper (even if you don't like macro models)

It has the best review of the FDIC bank resolution process, and how it's changed over time, that I've ever read

- A good, related paper:
  Vij, S "Acquiring Failed Banks" (2021)

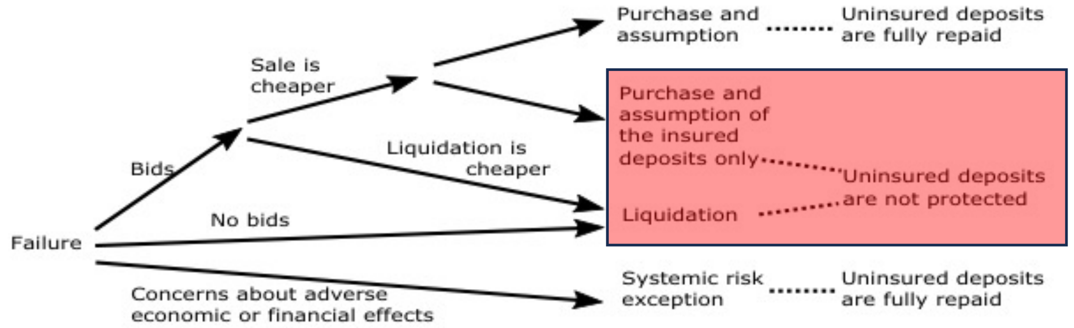


Figure 1. Resolution process of failed banks.
The figure shows how the FDIC resolves failed banks. Liquidation can be implemented in various ways such as deposit payouts (in which the FDIC pays the depositors directly), insured deposit transfer (in which a bank serves as a paying agent for the FDIC), or through the setup of a deposit insurance national bank.

Why you should read this paper (even if you don't like macro models)

- Clever way to construct the share of uninsured deposits held by households
  - Call reports don't break down data by type of depositor
  - Authors use SCF to construct household uninsured deposits

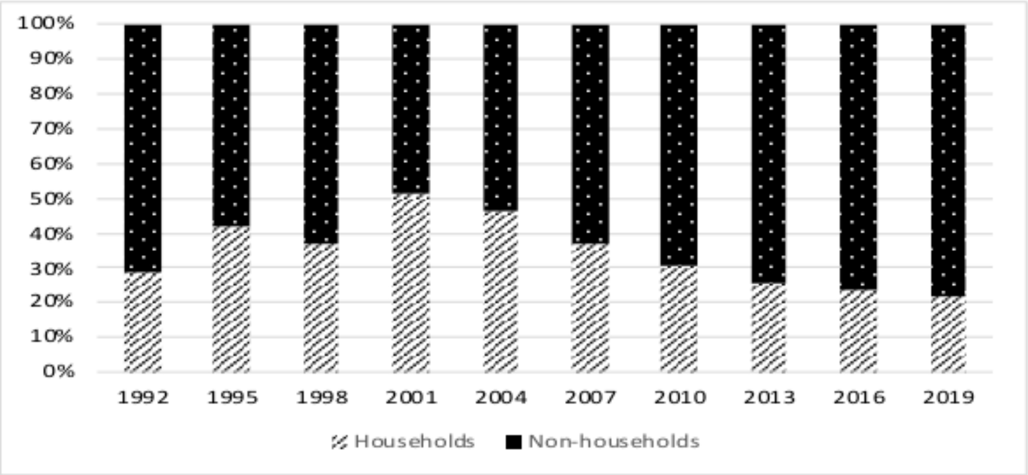


Figure 4. Uninsured deposits by owner
The figure plots the fraction of total uninsured deposits that are held by household and non-household depositors.

Why you should read this paper (if, like me, you DO like macro models)

- Carefully calibrated tractable quantitative macro model
- Current ingredients (color-coded with my take on them):
    - Firms with 2-state idiosyncratic productivity risk, working capital constraint, labor and capital choices
    - Short-lived banks with continuous idiosyncratic cash flow risk, making loans to firms and taking deposits from firms and households
    - Households with a partial cash-in-advance constraint
    - Government insures a proportion of deposits and sometimes bail out the rest (balanced budget with lump-sum taxes)
- Future ingredients: persistent firm size heterogeneity, dollar deposit limits (this is hard to do – how necessary?)

1. Why have uninsured deposit losses decreased?

S&L Crisis had uninsured depositors take more losses than GFC or 2023

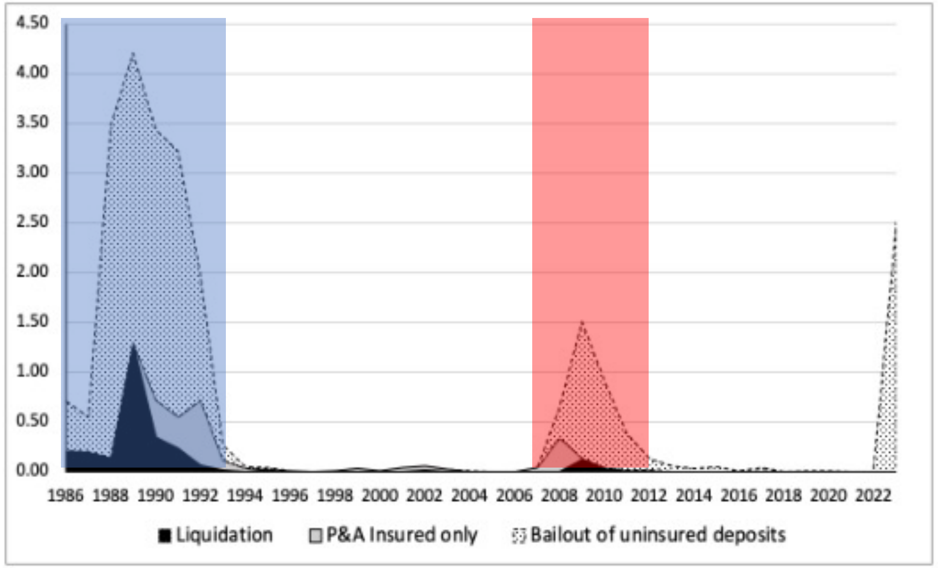
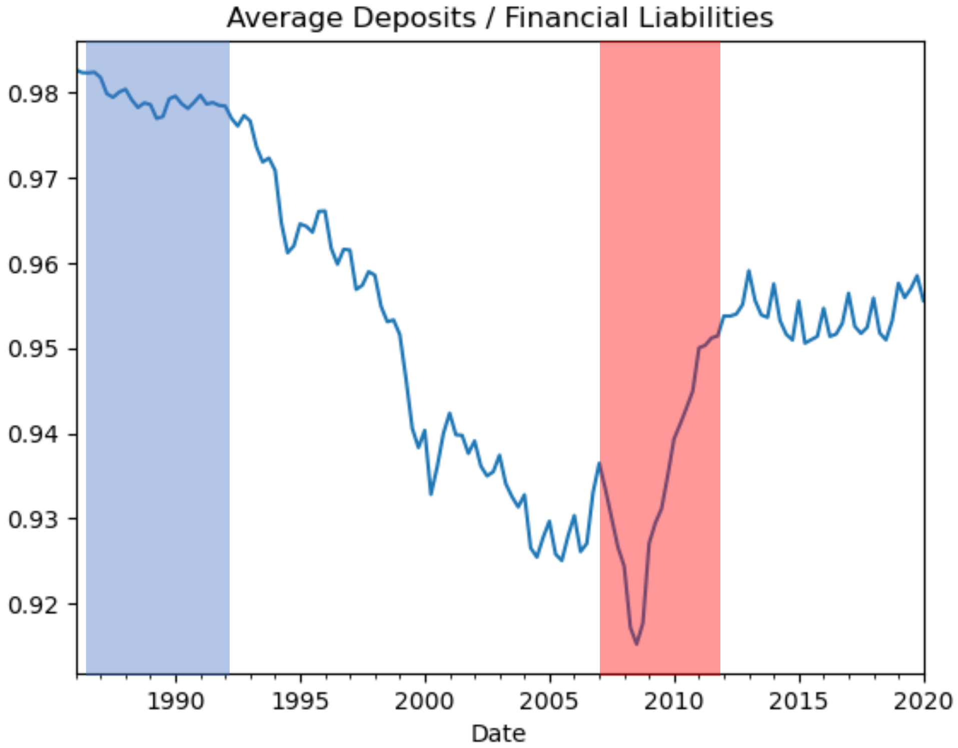


Figure 2. Default rate by resolution
The figure plots the bank default rate between 1986 and 2023 weighted by deposits, distinguishing between liquidation (black area), purchase and assumption of insured deposits only (gray area), and resolutions in which uninsured deposits were bailed out (dotted area).

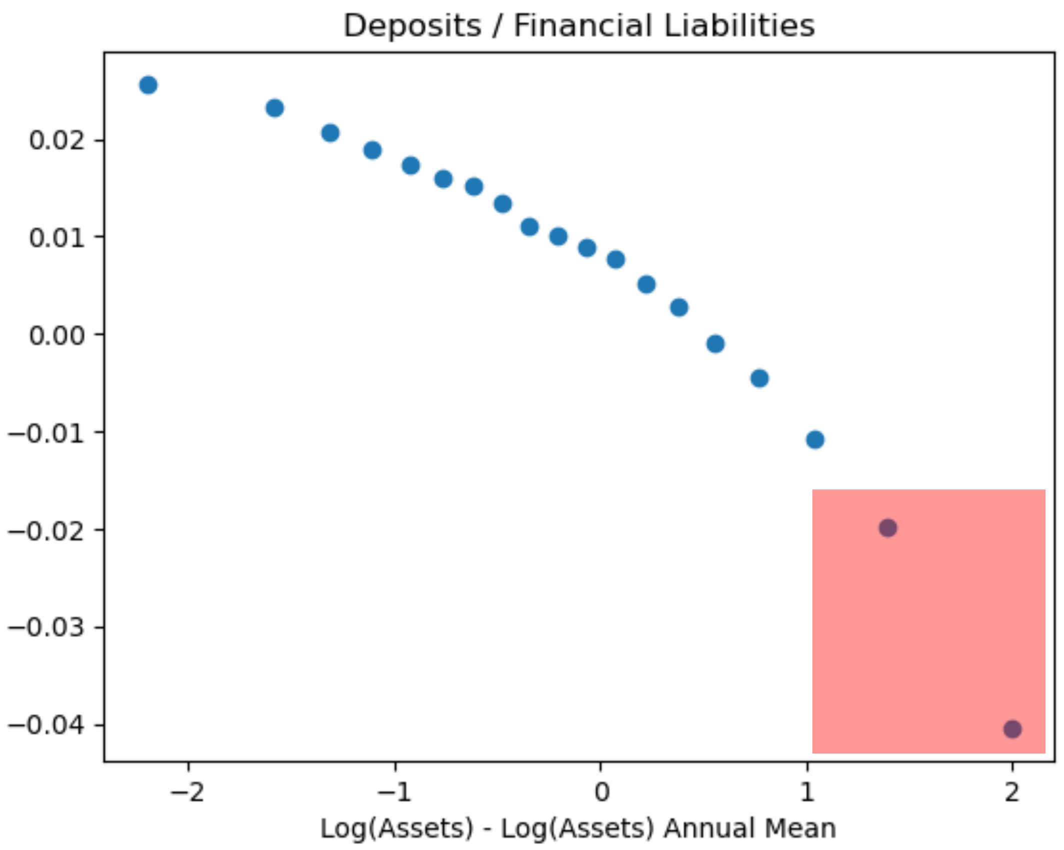
Uninsured deposits have become relatively more senior since S&L



Were uninsured depositors made whole in GFC not by bailouts by but better credit enhancement?

1. Aggregate Implications of Bank Capital Structure

- Larger banks especially have lots of non-deposit debt
- Some take losses before deposits
- 2023 failures were large banks
- How do we think about non-deposit debt in the model?
  - **Uninsured deposits? Then losses are larger than suggested.**
  - Equity? Then bank cost of capital, effect of capital requirements is off
  - Challenge for many banking models



2. Why do firms hold deposits? Model

- Working capital constraint for each firm i:

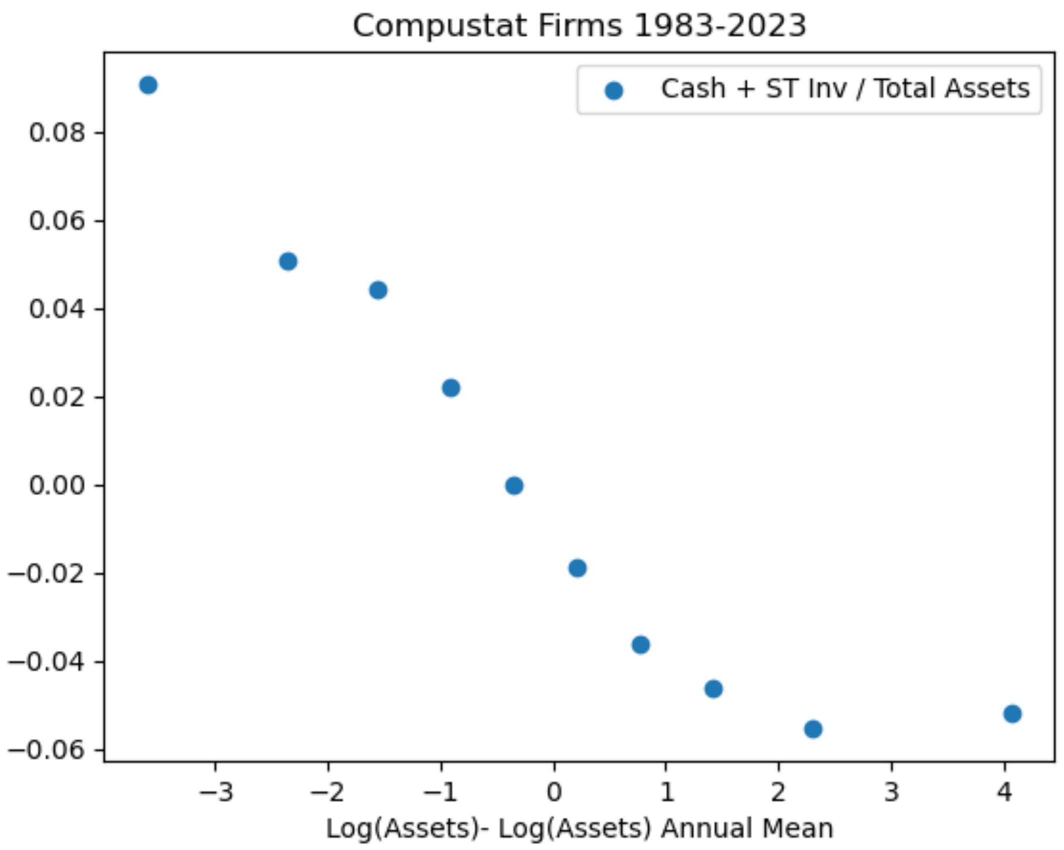
$$w_{t+1} l_{t+1}^i + r_t b_t^i \leq \hat{R}_{t+1}^d d_t^i + \theta y_{t+1}^i(z_{t+1}), z_{t+1} \in \{z_L, z_H\}$$

Wage bill + loan interest ≤ deposit + fraction of idiosyncratically risky output

- Aggregate implications:
  - Time t: idiosyncratic risk ↑ (z_L ↓) → deposits d_t^i ↑
  - Time t+1: Negative shock to $\hat{R}_{t+1}^d$ ↓ → contraction in labor demand l_{t+1}^i ↓
- Effect of deposit insurance on the real economy: it raises $\min[\hat{R}_{t+1}^d | \mathcal{F}_t]$
  - Substitution effect in portfolio choice: deposits ↑, capital ↓
  - Precautionary savings effect: need fewer deposits ↓ to hire optimal amount of labor in worst (bank failure) states of the world, so can invest more in capital ↑
  - Full insurance: Going from 94% to 100% is such a small change that neither really matter
  - No insurance: stay tuned…
- Demand for deposits indistinguishable from demand for other types of safe ST assets

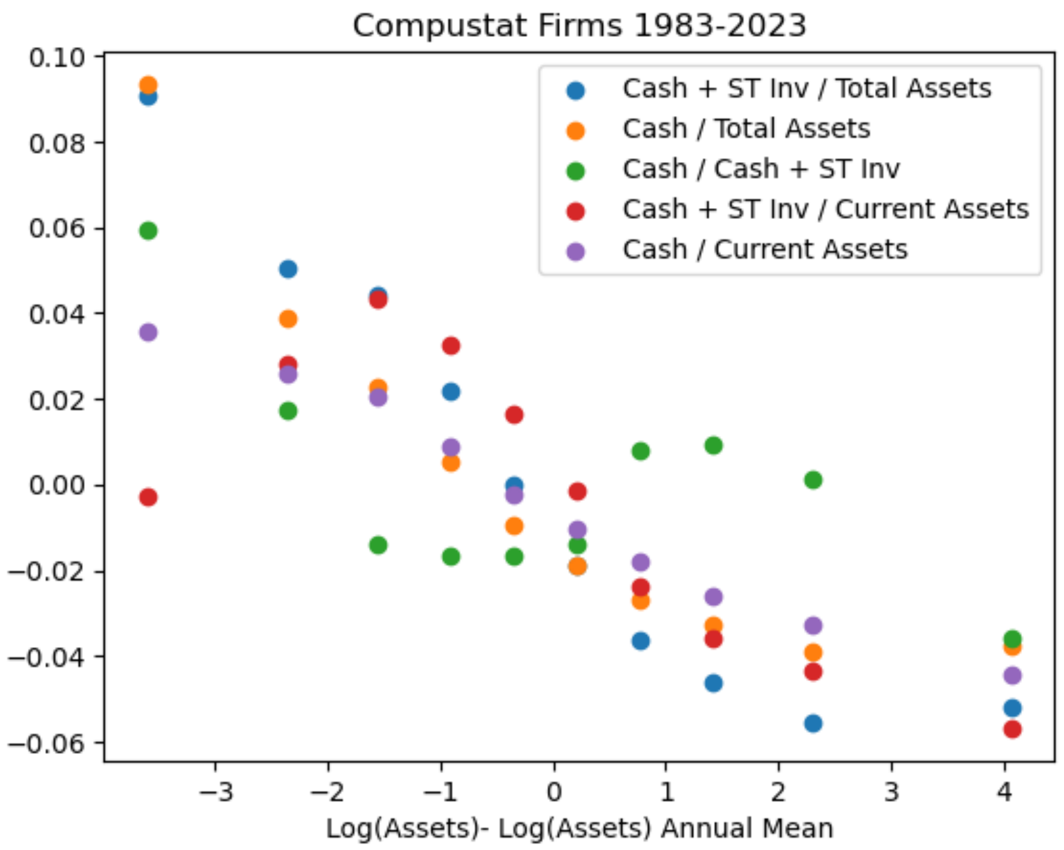
Why do firms hold deposits? Data

- Do risky firms hold more deposits?
  - Small firms do
  - Well, relatively small (Compustat)
  - Time x 2-digit SIC fixed effects



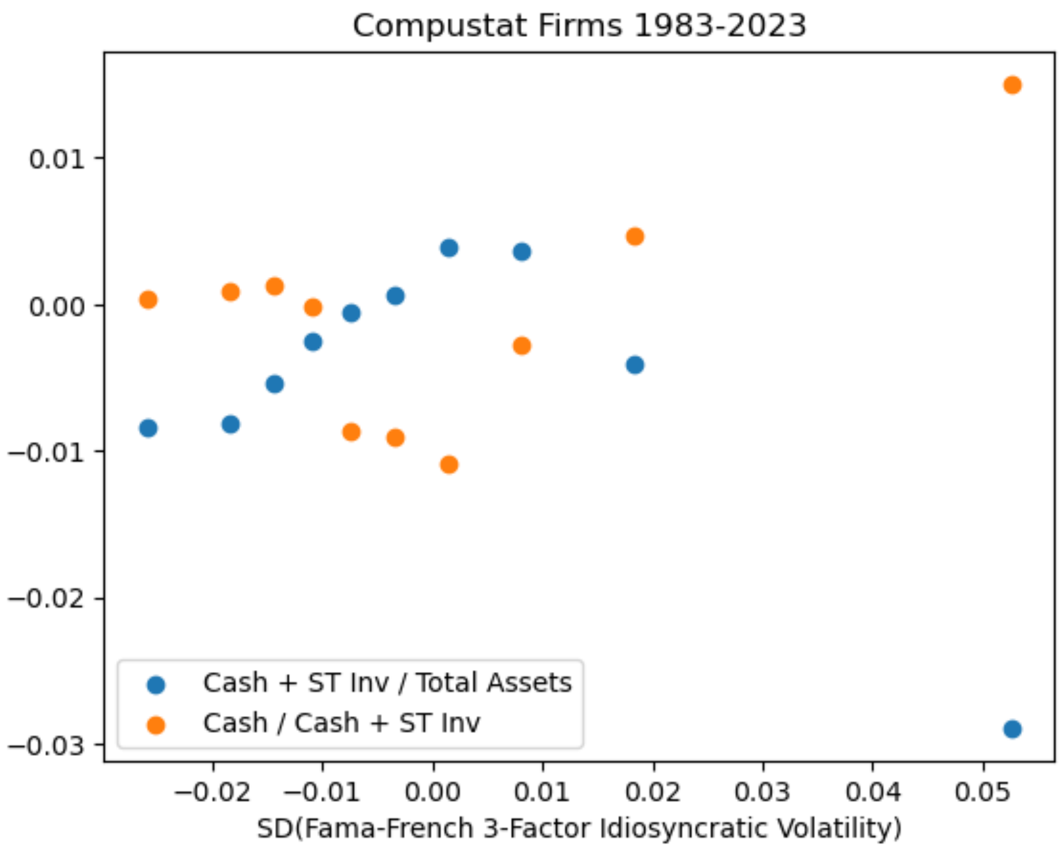
2. Why do firms hold deposits? Data

- Do risky firms hold more cash?
  - Small firms do
  - Well, relatively small (Compustat)
  - Time x 2-digit SIC fixed effects
  - Doesn't really matter how you measure cash
    - Narrowly: cash ~ (deposits + currency)
    - Broadly: cash + short-term marketable securities
- But size isn't risk…



2. Why do firms hold deposits? Data

- Do risky firms hold more deposits?
- Replace x-axis with St. dev. Of FF 3-Factor Idiosyncratic Vol
  - Add demeaned assets decile fixed effects to control for size
  - No clear pattern
  - Very risky firms have fewer non-cash short-term investments



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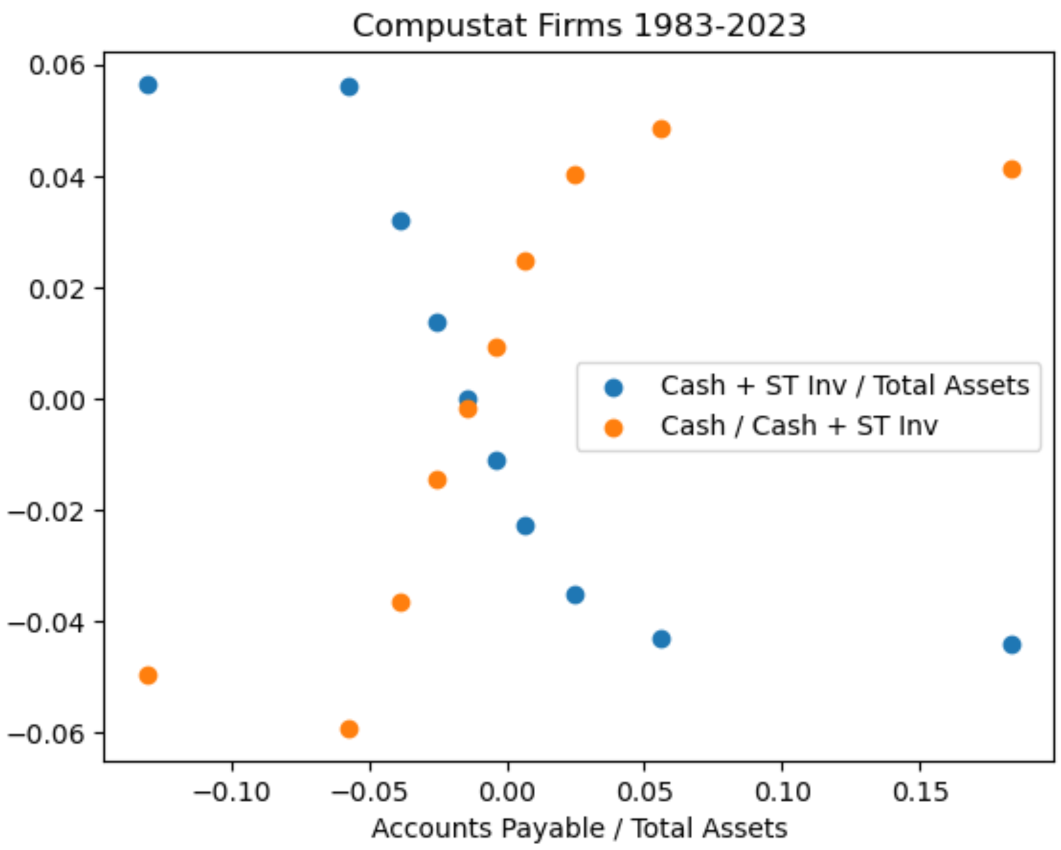
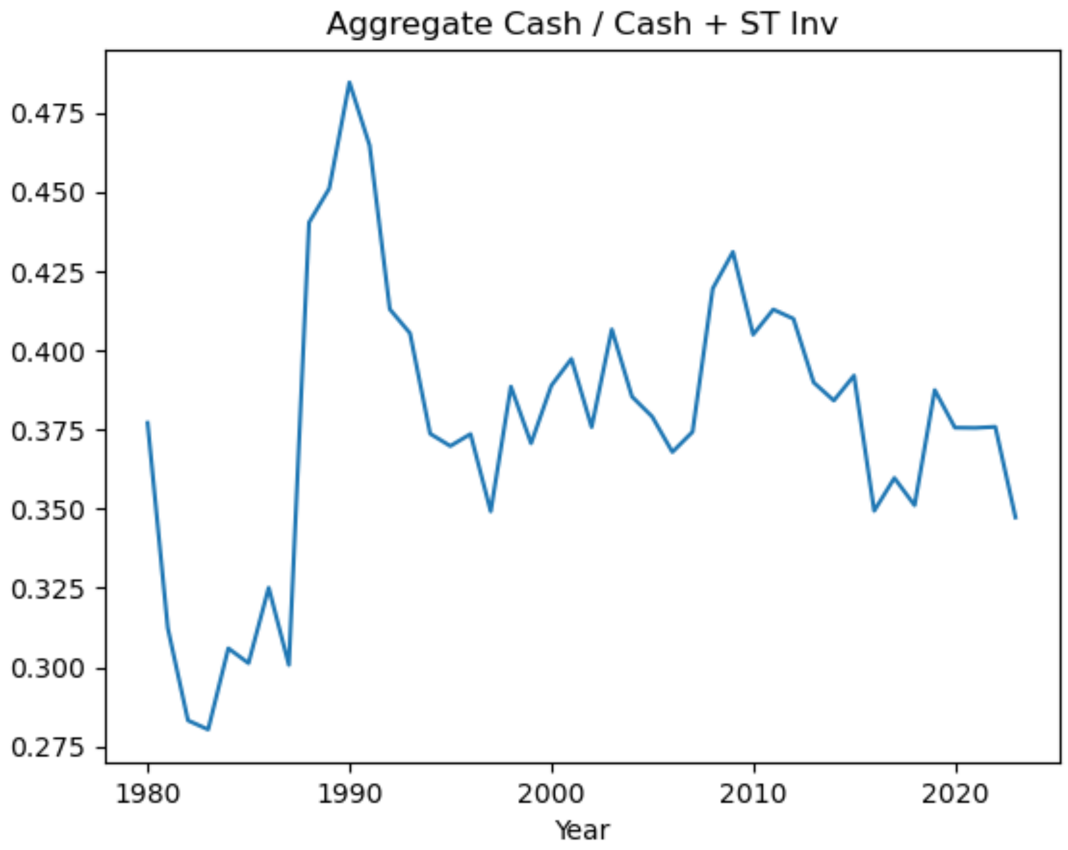
  - Very risky firms have fewer non-cash short-term investments
- Firms with higher short-term liquidity needs also hold fewer non-cash ST investments



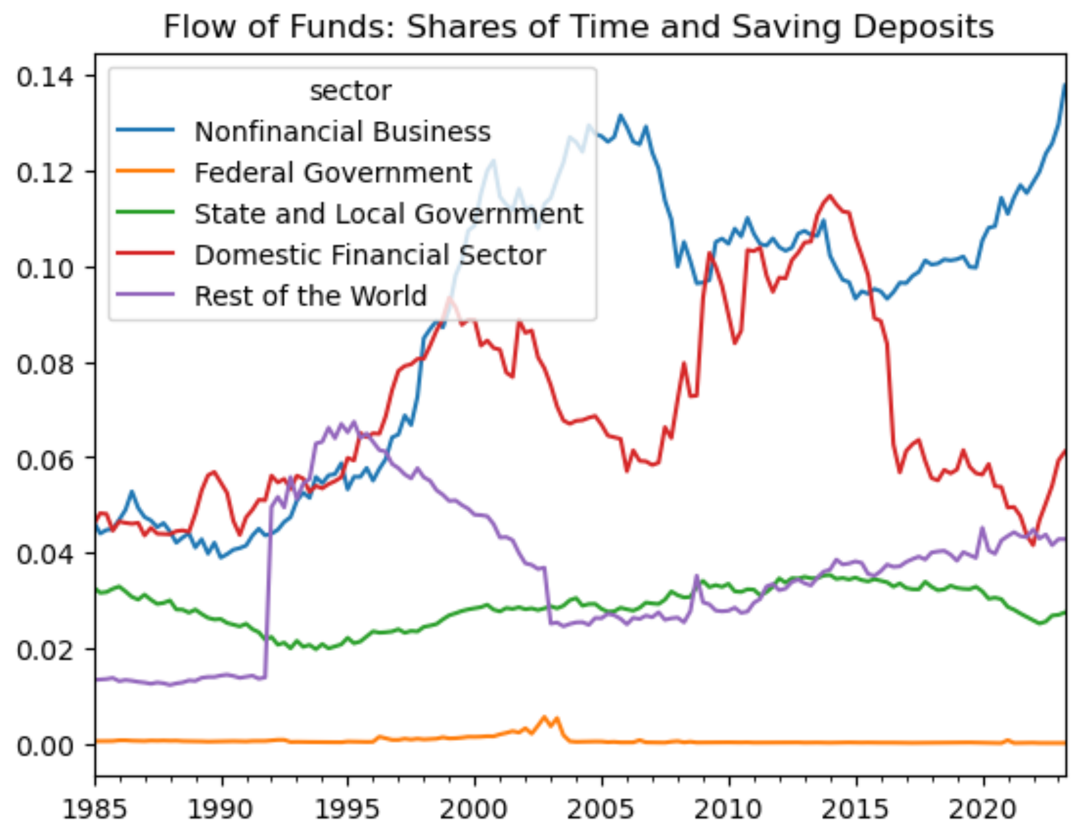
2. Firm Safe Asset Portfolio Choice

- Less than half of firms' "stored liquidity" is in cash
- Lower now than any time since the 90s
- XS results suggest a non-trivial portfolio choice **within** liquid assets
- A theory of how the quality/quantity of available deposits affect firm's decision to invest in liquidity vs. production needs to grapple with how firms choose where to store liquidity



3. “Firms and other non-household depositors”

- Who are the other non-household depositors?
  - Government, Fin Sector, Foreigners
- How big are they?
- How similar are they to firms in terms of their motivation for holding deposits?



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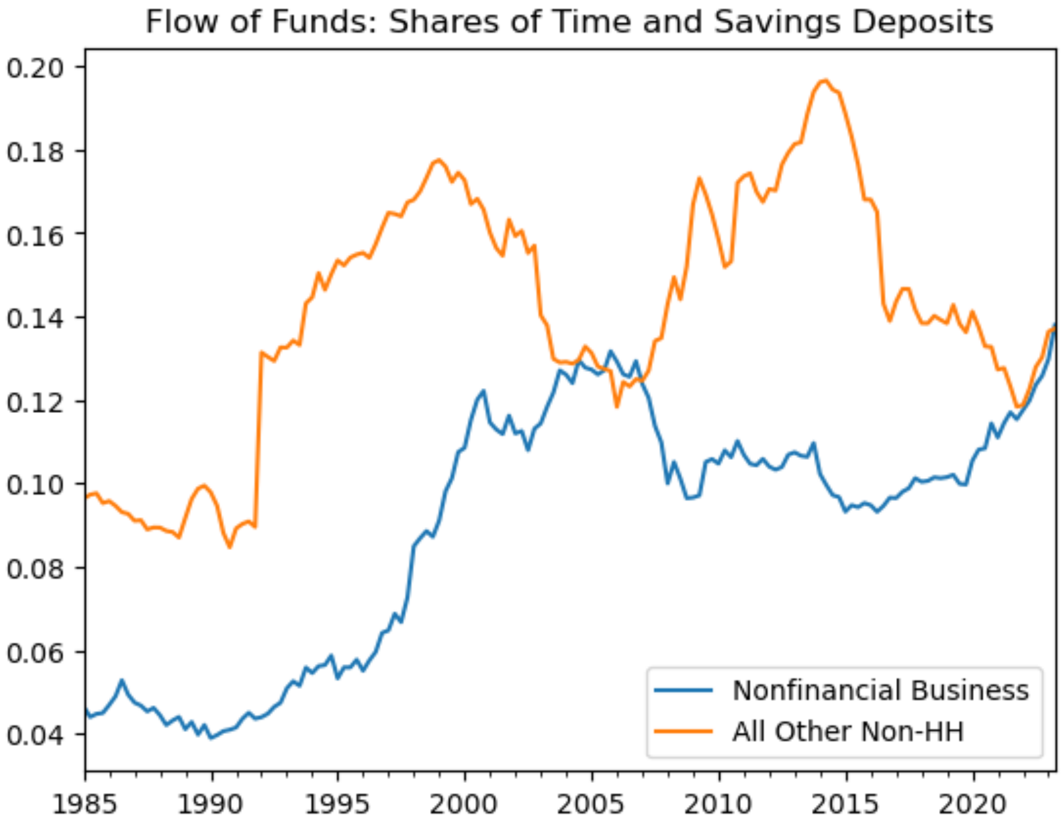
- Who are the other non-household depositors?
  - Government, Fin Sector, Foreigners
- How big are they?
  - Collectively, bigger than firms
- How similar are they to firms in terms of their motivation for holding deposits?
  - Probably not very, e.g. money market funds demand for CDs



Data to construct these graphs specifically for uninsured deposits does not exist. FFIEC: add this to the call report form!

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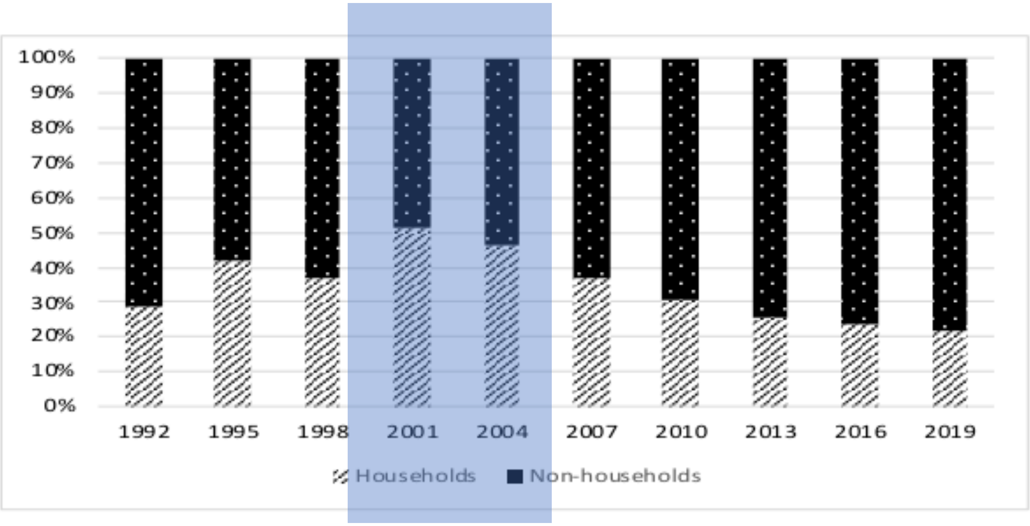

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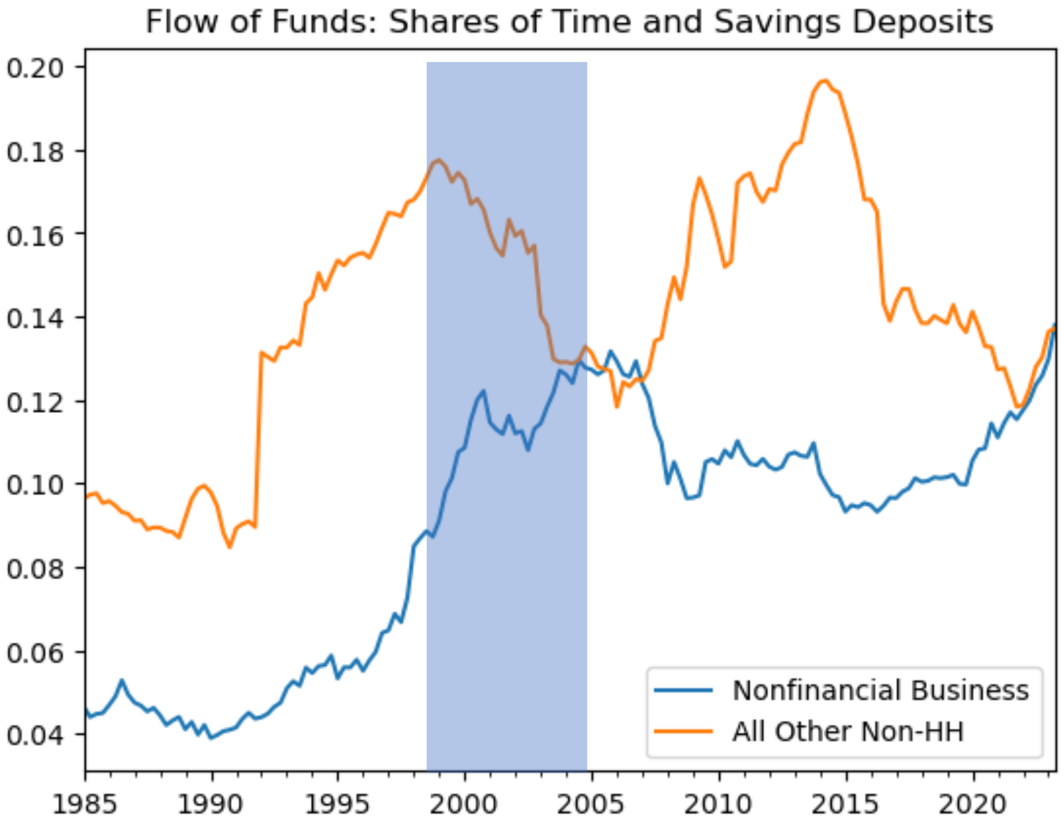
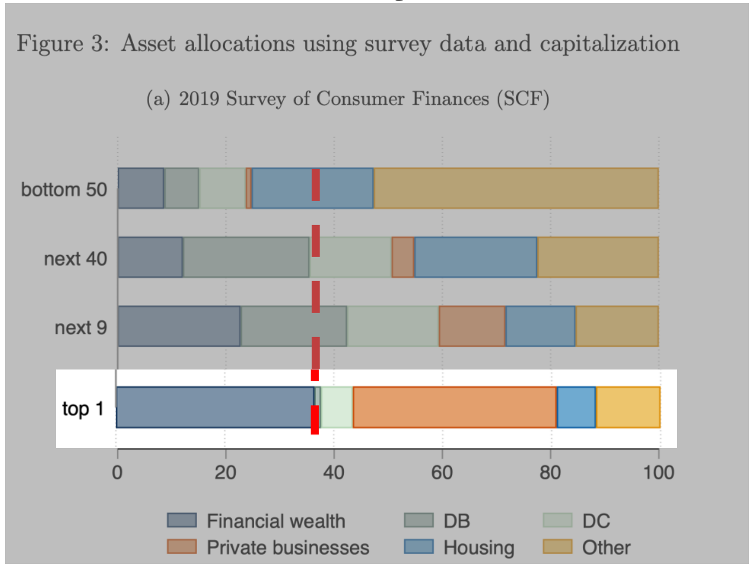


Uninsured vs. total deposit composition dynamics seem meaningfully different, esp. once you decompose into firms and other

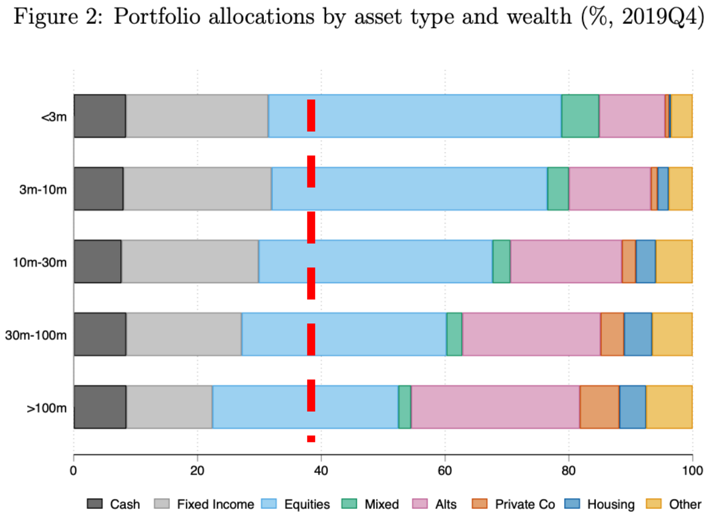
4. Measuring Uninsured Deposits of Rich Households

*"Among households, uninsured deposits are typically held by the wealthy, and **the SCF is well-suited to analyze this group** because it includes not only a random sample of U.S. households but also a second sample of wealthy households identified on the basis of tax returns, as well as weights to combine the two samples."*

2019 SCF Asset Mix by Wealth

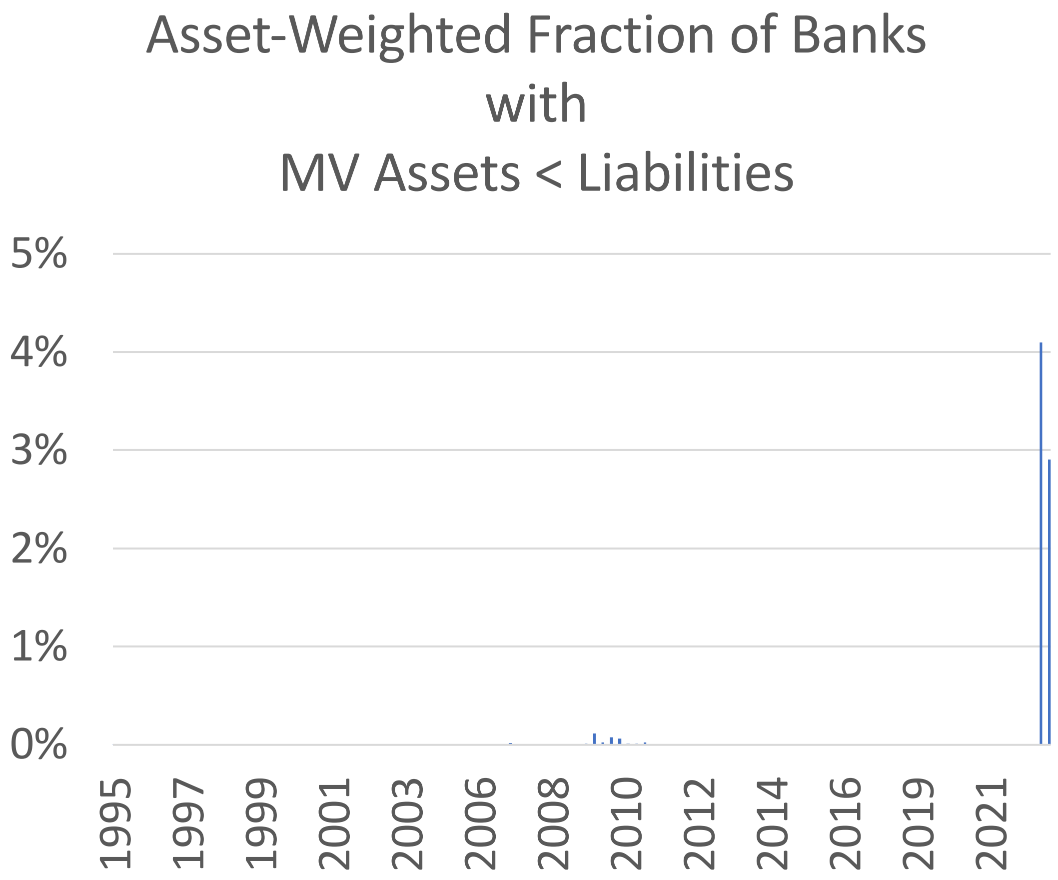


Addepar Data on Portfolios of Wealthy



Figures from Balloch and Richers (2021)

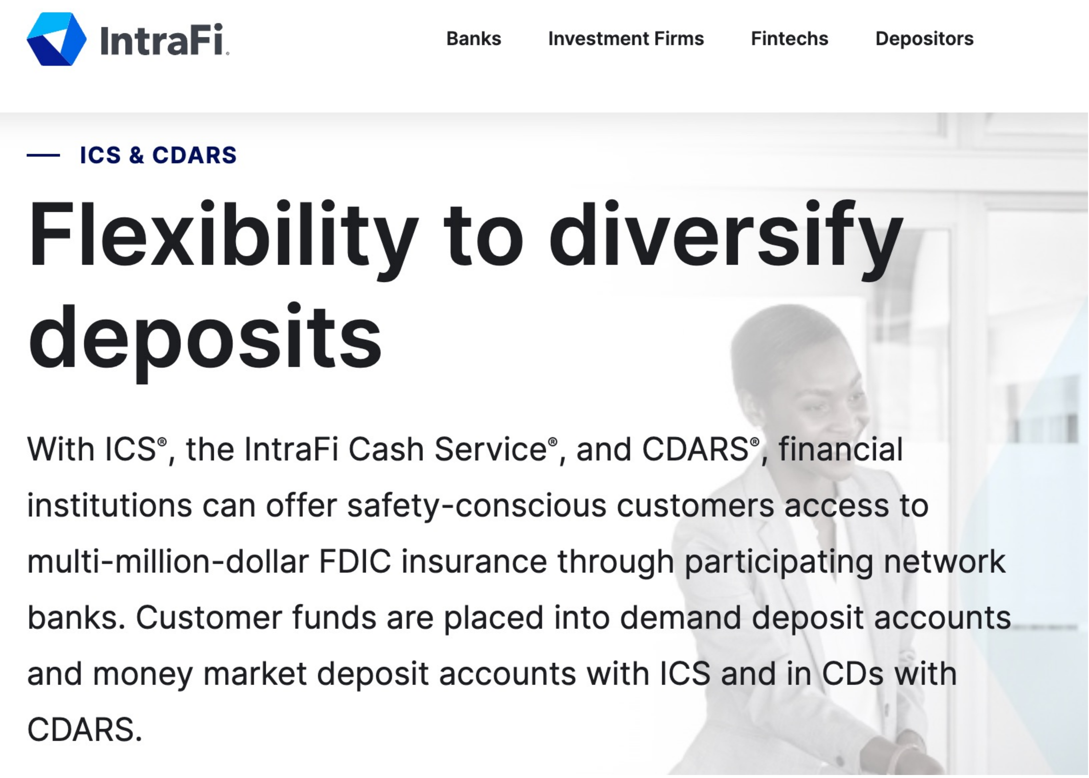
5. Short-Lived Banks → No Franchise Value



- MV Assets = Assets
  - \- Amortized Value of HTM Securities
  - \+ Fair Value of HTM Securities
- 2022 Q3 Insolvent Banks
  - Silicon Valley Bank
  - USAA
  - Charles Schwab

6. Why don't firms diversify deposits like households do?

- Households have two ways
  - Across banks
  - Across account types in the same bank (joint vs. single) (I didn't know this!)
- Firms have only the first way
  - Is that really that restrictive?
  - Sweep services exist to do precisely this



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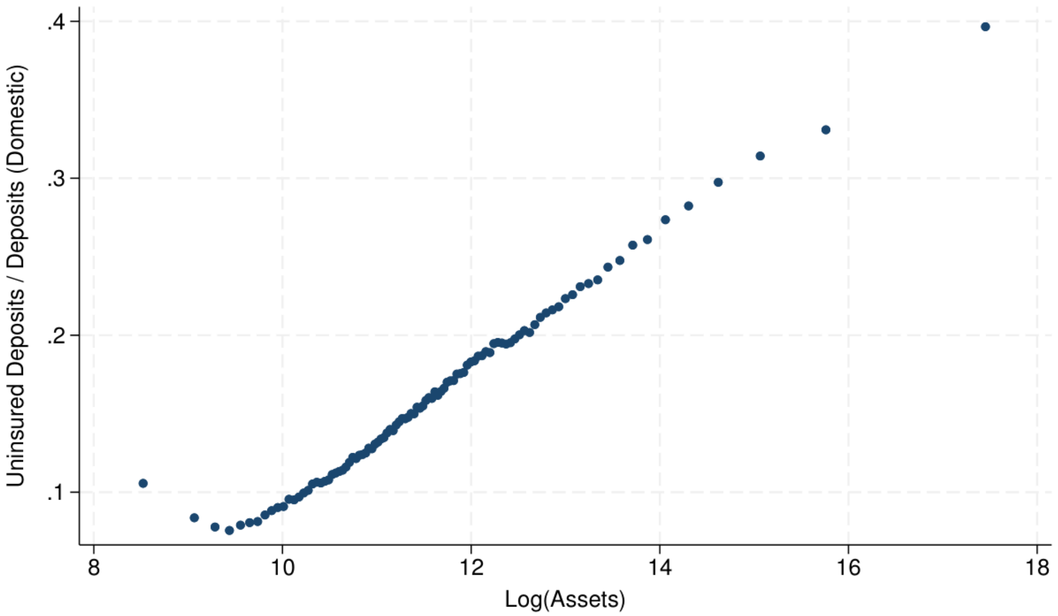
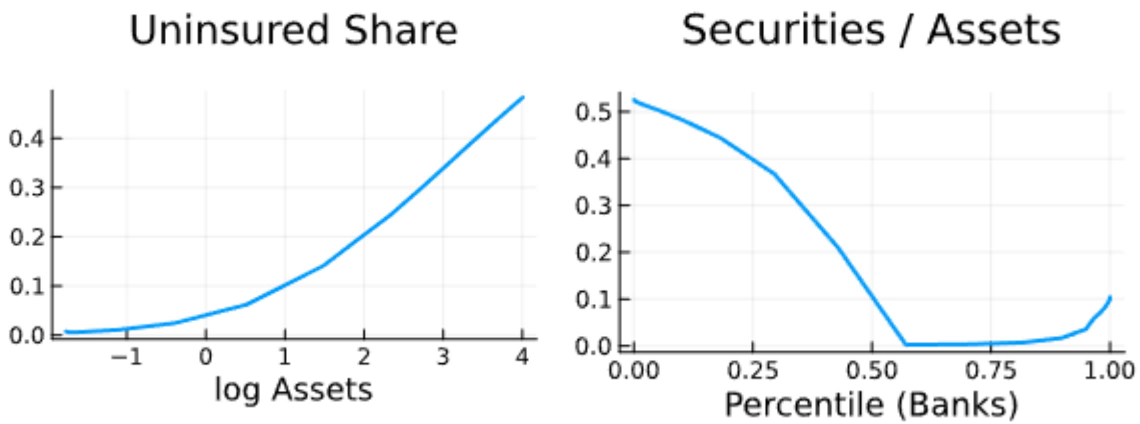
  - Sweep services exist to do precisely this
- Alternative explanation: complementarities between loans and deposits
  - Anecdotally true for SVB
  - As the first people to model firm deposits in macro banking models, authors ideally suited to study this complementarity!

7. Not all banks hold uninsured deposits

The large ones!



Interacts with bank portfolio choice on the asset side



Heterogeneous bank model in Begenau, Elenev, and Landvoigt (2024)

Overall: very promising paper

- “The trifecta”
  - Serious appreciation for institutional detail
  - Novel stylized facts
  - Rich, quantitative model motivated by the previous two features
- Big rewrite of the model from the previous version
- Ambitious plan with the next draft
- Can’t wait to read it!