Bank Assets

• Since 2021, the Fed has raised short-term rates by 5%
  – long-term rates, which reflect expected future short rates, are up 2.5%
• Banks hold $17T of long-term loans and securities with average duration 4 years
  – implied loss of 0.025 x 4 x 17 = $1.7T
  – not hidden or complicated
  – very large compared to $2.2T bank equity
Bank Stocks Held Up Through February; Down 30% in April
The Deposit Franchise

• What makes banks special is issuing deposits
  – Depositors value their convenience and safety
  – willing to accept very low deposit rates

• When rates rise, deposits become much more profitable for banks
  – “deposit beta” of 0.4 means that deposit rates rise only 0.4% for every 1% Fed funds rate increase
  – banks capture the other 0.6 x Fed funds rate
Deposit Rates

- Savings
- Interest checking
- 12-month CD
- Fed funds rate

Banks, Nonbanks, and Interest Rates

Philipp Schnabl
Big 4 Banks’ Deposit Costs and Mixes

- **JPM**: 
  - Domestic deposits ($billion): 2.00% (Q1 2022), 1.60% (Q2 2022), 1.10% (Q3 2022), 0.50% (Q4 2022), 0.30% (Q1 2023)
  - Deposit rate: 2.59%

- **BOA**: 
  - Domestic deposits ($billion): 1.96% (Q1 2022), 1.56% (Q2 2022), 1.16% (Q3 2022), 0.56% (Q4 2022), 0.36% (Q1 2023)
  - Deposit rate: 2.59%

- **WF**: 
  - Domestic deposits ($billion): 1.01% (Q1 2022), 0.61% (Q2 2022), 0.21% (Q3 2022), 0.01% (Q4 2022), 0.31% (Q1 2023)
  - Deposit rate: 2.59%

- **CITI**: 
  - Domestic deposits ($billion): 0.31% (Q1 2022), 0.11% (Q2 2022), 0.12% (Q3 2022), 0.33% (Q4 2022), 1.01% (Q1 2023)
  - Deposit rate: 2.59%

**Notes:**
- **JPM**: Deposits decreased as interest-bearing deposits increased.
- **BOA**: Similar trend as JPM, with a slight decrease in non-interest-bearing deposits.
- **WF**: Significant increase in interest-bearing deposits.
- **CITI**: Steady increase in interest-bearing deposits.
• Deposits betas during this cycle are (still) far below historical betas
The Deposit Franchise Hedge

• There are $17.5T of deposits
  – banks earning 5% x 0.6 = 3% deposit spread
  – 0.03 x 17.5 = $525B more income per year!

• Enough to offset losses on assets in 3 years
  – deposits went from unprofitable to extremely profitable
  – baseline estimate suggests a full offset,
  – explains why bank stocks didn’t fall through Feb
  – Generates stable net interest margin (NIM)
Stable Net Interest Margin (1955-2018)

Source: Drechsler, Savov, and Schnabl (Journal of Finance 2021)
Stable Net Interest Margin (2018-2023)

Source: FRED Quarterly Banking Profile
Deposit Risks

1. Deposit hedge only works if deposits stay in the bank
   - Runs destroy the deposit franchise and the hedge fails
   - Regional lenders with uninsured deposits are at risk

2. Deposit beta may “reset”
   - Uninsured depositors “wake up” and move to higher-paying alternatives outside the banking sector

3. Regular monetary policy ("deposits channel")
   - Price-sensitive depositors move as deposits become more expensive
Regional Bank → Large Bank Deposit Flows

- After SVB failed, $240B in deposits went from regional to large banks
- Anecdotally, banks have to pay significantly higher deposit rates
- Creates opportunities for non-bank lenders
Bank deposits $\rightarrow$ Money Market Funds (MMFs)

- About $550 billion moved from banks to MMFs (~3% of deposits)
- Most of deposit outflows went to institutional funds

Source: Investment Company Institute
 Deposits channel at work

- Deposit channel outflows **before SVB failure**: ~$20B/week
- Average weekly outflows in **April and May 23**: ~$20B/week

⇒ (Presumably) intended effect of monetary policy tightening