Silicon Valley Bank: What (Should Be) Next for Banks

Raise Bank Capital – A Form of Private Deposit Insurance

Viral V Acharya

NYU Stern
Government guarantees encourage tail-risk seeking...

• “Manufacturing of tail risks” encouraged by a variety of economic forces:
  - (Market failure) Spillovers or externalities: “not all that is to come of me is my problem”
  - (Regulatory failure) Government guarantees for banks that are mis-priced
    - Too big to fail, too many to fail, too interconnected to fail, too systemic to fail
    - Deposit insurance: With reserves less than 1.3% of insured deposits, no large bank run can be managed by the FDIC and uncertainty of resolution will likely precipitate runs by insured too

• Quantitative easing chipped in (Acharya, Chauhan, Rajan and Steffen, 2023)
  - Not just an expansion of Fed balance-sheet but also of commercial banks
  - Flooded with uninsured deposits, backed by low-yielding reserves, search for yield
  - For a while it looks a profitable franchise, until the tail risk of runs materializes
  - Liquidity dependence, as Fed starts QE all over again: “Hotel California”, no exit, ...
SIVB asset growth tracks the IPO cycle

SIVB asset growth coincided with low yields

Quarterly change in assets

IPOs

30-year mortgage rate

US 10-year

Source: Bloomberg, JPMAM. December 2022.

SVB Financial deposits, quarterly net change

Inflows turned to outflows in the past year as clients burned cash amid the tech slowdown.

$42 billion in attempted withdrawals on March 9

Sources: company filings (quarterly); California regulators (March 9)

How the bank failed?
For many banks: Mark-to-market capital, which reflects liquidation value of securities (without fire-sale discounts), is already below comfort zone of 8-10% Common Equity Tier 1 Capital Ratio.

Total unrealized losses in this rate-hike cycle relative to the previous highlight saliently the “scale” of the problem.
So what should be done with banks now?

- Backstop it all, provide guarantees?
  - This helps stem runs, but does not restore confidence or bring down the vol, as in 2007-09
  - Another variant of risk-seeking: Remaining under-capitalized. Healthier banks may skip too
  - The social problem is to produce the "optimal" quantity of deposits, so get risks internalized

- What worked in the past can provide some guidance...

- Stress tests and capital-raising, as in Feb-July 2009, but for stagflation (poly-crisis)
  - Mark capital honestly in Asset Quality Review for rate hike + recession + house-price declines
  - Stress it for plausible losses and cross-check with independent metrics like NYU Stern’s SRISK
  - Get banks to raise capital or sell assets/franchise to more valuable banks
  - If not raise it for them via government-funded (preferred) stakes in equity

- It is best to assume ALL debts, including insured deposits, are payable
  - "Robust" approach to financial stability (Note: Market equity should reflect franchise value)
  - Recognizes fiscal limits on deposit insurance, guarantees, the size of Fed’s put, ...
Leveraged carry trades + Aggregate risk 

→

Slow run first, and then fast...

Solution:

Bank capital: Mark it, stress it, raise it
Silicon Valley Bank: What’s Next for Banks
Monday, March 20, 2023
SVB: What's Next for Banks?

Thomas Philippon

NYU Stern
Back to the 1980s

SVB’ crisis is an old-fashioned banking crisis

... with a twist
Background

- As usual it takes 2 mistakes to kill a bank
  - Banks with stable deposit franchise can afford losses on HTM bonds
  - Banks with a lot of cash can survive a (partial) run
- But not duration risk and unstable deposits at the same time!
  - Banks usually rely on deposit franchise first
  - SVB used its loan franchise to build deposit → undiversified corporate deposits
Who’s next?
Markets looks for Uninsured depositors + large portfolio of Govt Bonds & MBSs

Source: FactSet
The Twitter Twist

• Washington Mutual lost around $16b in 10 days
• SVB lost $40b in 8 hours
• Liquidity stress tests in the age of social media
Regulations work .. when they are implemented

• Basel 3 agreed in 2013

• All large and most medium-sized EU banks comply with Basel 3, including LCR

• Only large banks in the US, not regional banks
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Banks and Interest Rates

Alexi Savov

NYU STERN
The Problem

• Since 2021, the Fed has raised short-term rates by 4.5%
  – 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 $1.7T
  – not hidden or complicated
  – very large compared to $2.2T bank equity
Bank Stocks Held Up Through February; Down 25% in March
The Deposit Franchise

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

• When rates rise, deposits become much more profitable for banks
  – “deposit beta” only 0.2 – deposit rates rise only 0.2% for every 1% Fed funds rate increase
  – banks capture the other 0.8 x Fed funds rate
Deposit Rates

- Savings deposits
- Interest checking
- 12-month CD
- Fed funds rate
Stable Net Interest Margin

Source: Drechsler, Savov, and Schnabl (Journal of Finance 2021)
The Deposit Franchise Hedge

• There are $17.5T of deposits
  – average deposit rate about 0.9%
  – banks earning 4.5-0.9 = 3.6% deposit spread
  – 0.036 x 17.5 = $630B 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
Risks

• The deposit hedge only works if most deposits stay in the bank
  – depositors may run if they are uninsured
    • a bank run destroys the deposit franchise and the hedge fails
  – deposit betas may rise if depositors seek out higher-paying alternatives
    • if the deposit beta doubles to 0.4, only 1/3 of losses offset
    • the risk is larger for regional banks (big banks could see betas fall)

• Key risks going forward are to the deposit franchise