Addressing the Underlying Causes of the Banking Crisis of 2023

9 May 2023

Bill Nelson

Outline

- I will focus on SVB
- Start with the big picture
- Supervision and regulation & the Barr report
- Crisis response
  - Discount window, resolution, systemic risk exception, and LOLR
- Monetary policy
  - Behind the curve, incorrectly defined neutral

Big Picture

- In each recent bank failure, losses were due to the rapid increase in interest rates combined with unstable funding.
  - Not exactly insolvency, not exactly illiquidity
  - Gains on deposits offset losses on securities until depositors run.
    - “Banking on Uninsured Deposits,” Drechsler and colleagues (2023)
    - “How Do Interest Rates (and Depositors) Impact Measures of Bank Value?” Luck and colleagues (2023)
- We all know that funding illiquid, longer-term assets with money-like liabilities is unstable
  - Normally worry about shadow banks because problem is supposed to be fixed for banks.
  - Bank risk is managed by the safety net: Deposit insurance, Lender of Last Resort, Examination and Regulation
    - All three broke down

Unrealized gains and losses on banks' securities

- Banks can keep securities in three places: trading account, investment account/held to maturity (HTM), investment account/available for sale (AFS).
- Unrealized gains and losses on trading account securities are reflected in income and securities are valued at fair value (market value).
- Unrealized gains and losses on investment account securities are not reflected in income.
- HTM securities are valued at par.
- AFS securities are valued at fair value (market value).
  - For regulatory capital of non-GSIBs, AFS securities valued at par. (The "AOCI filter.")

bpi
BANK POLICY INSTITUTE

Silicon Valley Bank

- Tripled in size over preceding three years to $210 billion.
- Took deposits of venture capitalists, their companies, and private equity
  - 95 percent of deposits were uninsured
- Invested in longer-term Treasuries and agency MBS
  - more than half of assets, valued at par
- Mark-to-market losses on securities roughly equaled capital.
- Decline in VC industry led to declining deposits.
- March 8: Sold some securities to raise funds, took losses, attempted unsuccessfully to raise capital.
- March 9: $42 billion in deposits left.
- March 10: $100 billion more in queue, CA and FDIC closed the bank after East coast offices opened.

BANK POLICY INSTITUTE

How’d it happen?

- Bank risk management was awful.
- Capital requirements largely ignore interest rate risk.
  - Risk-weights do not depend on maturity.
- Liquidity requirements focus on HQLA rather than diversified reliable funding.
  - Creates incentive to accumulate government debt.
  - Bank was awash in liquidity.
- Examiners focused on process, issued dozens of mandates on things like vendor management and IT infrastructure.

Barr report

- On April 28, 2023, the Federal Reserve released a review of the Fed's supervision and regulation of SVB.
- Report limited to events up to March 8. Did not assess government response.
- Report does not discuss how interest rate and funding risk were handled by supervisors of other banks or at other banking agencies.
- Did not provide any internal communications of Fed, just formal examinations and correspondence with SVB.

Barr report, continued

- At the very end (p. 96), lists some issues for consideration that seem appropriate in light of the material released:
  - "…supervisors can also consider how to develop a more robust understanding of the risks banks face and how those might be evolving with the economic, financial, and technological environment."
  - "…also suggests an opportunity to shift the culture of supervision toward a greater focus on inherent risk."
- But these issues are not mentioned in the key takeaways.

Barr report's four key takeaways

1. Silicon Valley Bank's board of directors and management failed to manage their risks.
2. Supervisors did not fully appreciate the extent of the vulnerabilities as Silicon Valley Bank grew in size and complexity.
3. When supervisors did identify vulnerabilities, they did not take sufficient steps to ensure that Silicon Valley Bank fixed those problems quickly enough.
4. The Board's tailoring approach in response to the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) and a shift in the stance or supervisory policy impeded effective supervision by reducing standards, increasing complexity, and promoting a less assertive supervisory approach.

SVB's failure was not caused by a lax supervisory culture or the tailoring of regulations (1)

- There is an old joke about the outgoing president giving the incoming president three envelopes to open if things get tough.
  - Barr report combines envelopes 1 and 2: blame predecessor, blame the Fed.
  - Envelope 3: Prepare 3 envelopes.
- Examiners were not "less assertive".
  - There were 30 Matters Requiring Attention and Matters Requiring Immediate Attention as of the end of 2022:
    - six directly concerned management of liquidity risk, and one concerned management of interest rate risk;
    - the remainder concern informational technology and security (13), lending and credit risk management (3), broad programmatic concerns about governance, audit, and risk management (3), vendor management (2), BSA/AML (2), and trust and fiduciary risk management (1).
  - Looking only at the twelve MRIAs open at that time, only two dealt with liquidity risk, and none addressed interest rate risk.

BANK POLICY INSTITUTE

SVBs failure was not caused by tailoring (2)

- S-2155 (EGRRCPA 2019) required the Fed to tailor regulations of regional and smaller banks.

Capital regulations

- Tailoring allowed SVB to exclude losses on AFS securities from regulatory capital.
- SVB would have passed pre-tailoring risk-based capital requirements by a wide margin (10 percent CET1 ratio, 7 percent requirement).

Stress tests

- Tailoring excluded SVB from capital stress tests (biannual tests starting 2024)
- SVB would have performed well on the Fed's stress test:
    - Stress tests contemplate a severe recession, interest rates fall; do not evaluate funding stability.
    - Even if interest rates were to rise and banks were required to include unrealized losses in regulatory capital, SVB would be fine because most securities were booked in HTM.
    - Only a third of SVBs assets were loans, so loans losses would be low.

bpi
BANK POLICY INSTITUTE

SVBs failure was not caused by tailoring (3)

Liquidity requirements

- Tailoring excluded SVB from the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) requirements.
- SVB would have passed the NSFR but needed $8 billion more “high quality liquid assets” to pass LCR.
- SVB was awash in liquid assets (58 percent of assets), could have passed by investing a little more in longer-term Treasuries and Ginnae Maes and a little less in Freddies and Fannies.
- SVB was required to conduct internal liquidity stress tests, which tend to be at least as strict as LCR, and report the results to their supervisors.
  - Thus, SVB was repeatedly failing its own ILSTs. Fed report found that examiners did not respond appropriately.

Resolution planning

- Absent tailoring, SVB would have been subject to holding-company level resolution planning requirements.
- SVB was subject to bank-level requirements and 98 percent of assets were in the bank.
- Barr report does not discuss how tailoring of resolution requirements made any difference.

bpi
BANK POLICY INSTITUTE

Barr report: Final thoughts

- Policy recommendations in the report seem little different from what Vice Chairman Barr would have recommended prior to the failure.
- The upcoming Fed's upcoming Basel finalization proposal is about market risk, operational risk and credit risk; SVB was about interest rate risk and liquidity risk. There is no overlap whatsoever.

BANK POLICY INSTITUTE

Government response – Failed efforts to sell SVB

- Normally, when a bank fails, it is quickly sold so that it can keep operating, preserving its franchise value.
- FDIC is required to resolve a bank in the least costly manner.
  - When only 5 percent of deposits are insured, least costly means liquidation.
  - Liquidation is incredibly disruptive to the financial system.
- FDIC, Fed, and Treasury invoked the systemic risk exception to least cost resolution.
  - Deeply worried about runs at other banks.
  - Guaranteed uninsured depositors at SVB and Signature, essentially promised to do the same if necessary for other banks that failed.
- FDIC then sought a buyer; efforts appear to have been bungled.
  - Bloomberg: "The effort to wind down Silicon Valley Bank was marred by an unmotivated seller, infighting between regulators and, ultimately, a failed auction."

Government response – Lender of last resort

- SVB had insufficient (none?) collateral pre-positioned at the discount window and had never conducted a test borrowing.
- $20 billion in collateral was trapped at the FHLB, probably because FHLBs take a blanket lien on all the assets of a borrowing bank.
  - Fed and FHLB carve out collateral for the Fed but it takes time.
- $20 billion collateral was tied up at custodian the day before failure.
- SVB had not signed up for the Standing Repo Facility.
  - The SRF is strictly inferior to the discount window.
- If SVB had borrowed from the discount window on March 8 instead of selling securities, the entire crisis might have been avoided.

Government response – Fed lending programs

- Fed opened the Bank Term Funding Program over the weekend after the failure.
  - Extends one-year loans at a low fixed rate, repayable without penalty.
    - Currently profitable to borrow and keep money on deposit at the Fed.
  - Lends up to full par value of Treasury securities and agency MBS.
    - So Fed is lending more than the value of the collateral backing the loan.
  - $25 billion guarantee provided by Treasury using the exchange stabilization fund.
- Fed lent to bridge banks of SVB and Signature and receiver for First Republic.
  - Normally, under a standing arrangement, the FDIC repays the loans and Fed surrenders the collateral.
  - Fed is lending $228.2 billion to the FDIC as receiver, twice peak primary credit in GFC.
  - Unusually, the Fed has provided no information on the terms of these loans.

BANK POLICY INSTITUTE

FOMC's partial responsibility (1)

- Commentators have observed that Fed should have been best placed to warn banks about interest rate risk.
  - This misses the point.
- Interest rates rose by so much and so quickly because the Fed was behind the curve.
  - Partly because of inflation surprise, but also many ways the Fed was at fault (I count 13) including
    - A massive asset-purchase program that it was slow to stop and being unwillingness to raise fed funds target until it had stopped tapering purchases.
    - Overly strong forward guidance that required Fed to be at inflation and unemployment targets before tightening.
    - Mismeasuring the neutral rate and therefore by how much policy needed to be tightened.

bpi
BANK POLICY INSTITUTE

FOMC's partial responsibility (2)

- In 2022 the Fed kept telling the market it was heading for a 2½ percent federal funds rate because 2½ percent was neutral.
  - The FOMC estimates the neutral real funds rate to be 0.5 percent.
  - The neutral nominal funds rate is the neutral real funds rate plus the underlying pace of inflation or near-term inflation expectations, which are not observable.
  - But the Fed was pointing to 2½ percent because its long-run target for inflation was 2 percent, clearly the wrong concept when inflation is 8 percent.
- Chairman Powell, July 2022

  "So, I guess I'd start by saying we've been saying we would move expeditiously to get to the range of neutral. And I think we've done that now. We're at 2.25 to 2.5 and that's right in the range of what we think is neutral."
- My commentary in April 2022:

  "None of this matters for signaling the direction of policy over the next few meetings. But it matters a lot for thinking about what are reasonable levels right now for medium- and longer-term interest rates."

BANK POLICY INSTITUTE

BANK POLICY INSTITUTE

1300 Eye St. NW
Suite 1100 West
Washington, D.C. 20005

www.bpi.com

BANK POLICY INSTITUTE