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Probative Inquiry

2023 Financial Sector Stress Events

Prepared for:
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U.S. Federal Reserve Board of Governors
Division of Supervision & Regulation

PRELIMINARY REPORT

He who knows only his own side of the case, knows little of that.

His reasons may be good, and no one may have been able to refute them. But if he is equally unable to refute the reasons on the opposite side; if he does not so much as know what they are, he has no ground for preferring either opinion.

The rational position for him would be suspension of judgment, and unless he contents himself with that, he is either led by authority, or adopts, like the generality of the world, the side to which he feels most inclination.

— John Stuart Mill, On Liberty (1859)

Opening Letter

Silicon Valley Bank ("SVB") failed on March 10th 2023. In the time since, a causal narrative has been asserted by official sector post-mortem studies and the public commentary that these studies have subsequently informed. Public policy formulation is now often influenced by this narrative.

Starling was retained to: (1) conduct an independent Probative Inquiry into any lapses in supervision that may have contributed to SVB's failure; (2) test the reliability of the established public narrative; (3) produce an Independent Expert Review setting forth the understandings and conclusions that our Probative Inquiry supports; and based thereupon, (4) to articulate Recommendations for Reform in supervisory practice, if any supervisory lapses evident in 2023 are to be avoided going forward.

This Preliminary Report summarizes initial findings of fact established through our ongoing Probative Inquiry. Its principal conclusion is that the established public narrative is insufficiently substantiated by past official sector postmortem accounts to inform public policy formulation uncritically.

Days after the failure of SVB, Michael Barr, then the Vice Chair for Supervision ("VCS") of the Board of Governors of the Federal Reserve System ("Board"), directed Board staff to produce an internal review of the bank's failure. Only seven-weeks later, that study (the "Barr Report") was published. In a covering letter, VCS Barr highlighted the report's four key findings:

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

Barr also invited feedback on his report and further reviews of SVB's failure:

- "I also appreciate that others will have their own perspectives on this episode. We welcome external reviews of SVB's failure, as well as congressional oversight, and we intend to take these into account as we make changes to our framework of bank supervision and regulation to ensure that the banking system remains strong and resilient."[2]

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[1] Michael S. Barr, *Letter of Transmittal to the Board of Governors of the Federal Reserve System, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, April 28, 2023, 1.
[2] Ibid., 4.

In a June 2023 speech, then-Governor Michelle W. Bowman called for “an independent third party” review of the failures at SVB, Signature Bank, and First Republic Bank. She noted that these failures “highlighted key deficiencies in risk management practices” and “key deficiencies in supervisory priorities.” Bowman argued that an independent review was necessary because the Barr Report was “prepared internally, by Federal Reserve [Board] supervision staff, relying on a limited number of unattributed source interviews, and completed on an expedited timeframe with a limited scope.”

Bowman further observed that the Barr Report was “the product of one Board Member [that] was not reviewed by the other members of the Board prior to its publication.” More troublingly, in her view, “other Board members were afforded no ability to contribute to the report’s content.” She thus argued that, “[a] supplemental, independent review would help overcome the limitations of scope and timing of these initial efforts, and address concerns about the impartiality and independence of the reviews.”[3]

On June 4th 2025 Bowman was confirmed by the Senate as Vice Chair for Supervision. During her confirmation hearings, Bowman was asked whether, if confirmed as VCS, she would commit to an independent review of SVB’s failure and supervisory lapses. “I would like to do an independent review that would help us identify some of the issues that we should be identifying,” she replied. Starling’s Probative Inquiry is designed as a first step in the fulfillment of that pledge.

Starling is well-known for curating a global dialogue[4] aimed at advancing culture risk governance and supervision. We have argued that advances in governance[5] must be achieved if we are to reverse the erosion of trust in private sector institutions that followed from the Global Financial Crisis, and that corollary advances in supervision[6] must be achieved if supervisors are to overcome challenges to their perceived reliability after the banking sector turmoil of 2023. These views are deeply informed by my experience leading internal investigations and conducting risk intelligence exercises for public and private sector clients, across dozens of countries, over 25-years.

Mindful of the reputation for rigor and candor that this professional history imparts, VCS Bowman directed Starling to conduct a deep study of potential deficiencies in the supervision of SVB, by the staff of the Board’s Division of Supervision & Regulation (“Board S&R”) and the supervisory staff of the Federal Reserve Bank of San Francisco (“FRBSF”). In this, we have sought to determine whether supervisory staff might have acted to prevent or mitigate that bank failure and, if so, to learn what may have impeded timely remedial action. We have also sought to explore whether Board and/or FRBSF supervisory staff – or their leadership – may unintentionally have contributed to the run on SVB and, if so, how this unintended outcome came to be. Our purpose in all the foregoing is to develop constructive learnings that may inform improved future practices.

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[3] Michelle W. Bowman, “Responsive and Responsible Bank Regulation and Supervision,” speech at the Salzburg Global Seminar on Global Turbulence and Financial Resilience: Implications for Financial Services and Society, Salzburg, Austria, June 25 2023, https://www.federalreserve.gov/newsevents/speech/bowman20230625a.htm.

[4] Contributors to Starling Insights publications (2018 – 2025).

[5] Starling Insights, “Culture & Conduct Risk in the Financial Sector,” The Starling *Compendium*, (2018–2025).

[6] Starling Insights, “Supervisors on Supervision,” A Starling Insights *Deeper Dive* report, April 2026.

In pursuing these learnings, we benefit by the work done by those who compiled the Barr Report and other postmortem studies. We further enjoy the benefit of hindsight and a more generous timeframe within which to conduct our study than other post-mortem writers were afforded.

In conducting our Probative Inquiry, we have had access to summary interview notes for all the people interviewed by the writers of the Barr Report. We have also conducted our own interviews with key Board S&R officers involved in the supervision of SVB, with the notable exception of the former Division Director, and the former Deputy Director for Supervision, both of whom declined multiple invitations to contribute to our constructive efforts. Nor have we been able to engage the former head of the Large & Foreign Banking Organization supervisory portfolio which had direct oversight responsibility for SVB at the time of its failure.

Starling has benefitted by interviews with those entrusted with the duties of the VCS: former Governor Daniel K. Tarullo, former VCS Randal K. Quarles, and current VCS Michelle W. Bowman. Governor Barr, who served as VCS during the nine months immediately prior to SVB's failure, declined to meet for an interview discussion until after having opportunity to respond to written questions. I appreciate Governor Barr's responses to an initial set of questions, his willingness to respond to a more detailed second set of questions recently submitted, and I look forward to an interview discussion with him that is to be scheduled thereafter.

In this Preliminary Report, we recount the learnings achieved through our interview discussions with former Governor Tarullo and former VCS Quarles. Learnings obtained through our engagement with VCS Bowman and Governor Barr will feature in a subsequent Interim Report, along with learnings Starling gained through interviews with other Board S&R and FRBSF staff conducted after the July 6th 2026 cut-off date for the content captured here.

In the pages that follow, we identify and review potential deficiencies in the supervision of SVB by Board S&R and FRBSF supervisory staff. To allow the public to judge the credibility of our findings, we have described the evidence on which each finding is grounded. This Preliminary Report is supported by an Appendix featuring over three-hundred pages of evidence, and we provide references to various public and confidential documents that have informed the understandings expressed herein.

We find it notable that, in the production of the Barr Report and other postmortem studies into the failure of SVB (e.g., by the Fed's Office of the Inspector General and the Government Accountability Office), the preparers of those studies elected not to interview nor to issue document requests to the former board or management of SVB. We view that as a failure to solicit a valuable perspective. While the past board and management of SVB are surely interested parties, prone to a self-favoring bias, this is true also of the Board S&R and FRBSF supervisory staff whose accounts form the basis of the conclusions set forth in the Barr Report and, therefore, the public narrative it helped to establish.

In an effort to curate a more complete account of the events that culminated in the failure of SVB, Starling interviewed Mary Miller, a former Treasury official in the Obama Administration, who served as the chair of the audit committee of SVB's board of directors. And we interviewed Mark Watson, who joined SVB as Head of Management Governance in September 2022, after a long career in regulatory consulting. Summaries of those interviews appear in our Appendix to this Preliminary Report, along with a detailed written statement by the former Independent Directors of SVB, offering their account of events relevant to our Probative Inquiry. The Directors' Statement is also attached as an addendum hereto.[7]

The Appendix also includes two detailed studies, prepared by independent experts with Charles River Associates, commissioned by Starling to examine:

> (1) what vulnerabilities at SVB were evident to market participants in the few years immediately prior to its failure – vulnerabilities that should therefore have been evident to the bank's supervisors, given their access to far more granular, non-market information; and
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> (2) whether an analysis of posts on Twitter in the period immediately prior to the failure of SVB supports the assertion that social media fueled the run on the bank.

These studies make plain that the vulnerabilities at SVB were well understood by market participants, should have been evident to supervisors, and that assertions that social media chatter caused or meaningfully accelerated the run at SVB are not supported by Twitter data evidence.

I expect that the initial set of findings offered in this Preliminary Report may stir reactions. We welcome constructive criticisms and suggestions as to how our ongoing Probative Inquiry may better serve the public good towards which it aims. An Interim Report, to be delivered later this year, will supplement the findings offered here, and a Final Report, to be issued in the early new year, will complete our findings-of-fact. We will seek to capture therein any valuable feedback readers may wish to share with us at 2023Review@starlingtrust.com.

Stephen J. Scott
Founder & CEO

[7] Addendum Item 4, *SVB Directors Statement*.

Summary Timeline

2020

SVB's deposit base historically more than 90% uninsured and concentrated on VC-backed tech firms.

Rapid Growth: In 2021-22, SVB's deposits grew from \$63bn to \$191bn and assets from \$70bn to \$207bn. It invested \$125bn in medium-term, fixed-rate bonds during a period of low interest rates.

2021

High Interest-Rate Risk: SVB's bond portfolio was exceptionally sensitive to a rise in interest rates, with duration ranging from 3.7 at the beginning of 2021 to 5.7 at year-end 2022.

> **Why Duration Matters:** A duration of 5.7 means that for every 1% increase in interest rates, the value of the bond portfolio would fall by about 5.7%.

Loss Projection Limits: SVB's bond portfolio breached its interest-rate loss projection limits from Oct 2020 until March 2023, without any risk-mitigating actions or supervisory reaction.

No VCS: From Oct 2021 until July 2022, the Fed had no Vice Chair for Supervision (VCS).

2022

Interest Rates Rise: When interest rates started rising in mid-2021 and accelerated in 2022, the economic value of SVB's bond portfolio plummeted.

Q1 2022: The economic value of SVB's bond portfolio fell by more than half its capital by the end of Q1.

Increased Run Risk: The run risk of SVB's deposits also grew as interest rates increased.

No Prompt or Decisive Supervisory Action: Supervisory staff never issued substantive MRAs or enforcement actions requiring SVB to reduce duration of its bond portfolio or diversify its deposit base.

Q3-Q4 2022: The economic value of SVB's bond portfolio fell by more than its capital by the end of Q3 and Q4.

2023

Run Triggered: After close of business on March 8, the day Silvergate announced its voluntary liquidation and SVB reported \$1.8bn loss on sale of some bonds and a \$2.25bn capital raise, the run on SVB began.

Massive Run: More than \$41bn of deposits were withdrawn from SVB on March 9 with instructions to withdraw another \$100bn on March 10.

Social Media: Social media did not trigger the run; it followed the run after SVB's failure was inevitable.

FDIC Receivership: SVB was closed and put into an FDIC receivership on March 10 at 9am.

Executive Summary

Key Preliminary Findings

1. SVB failed in 2023 because it suffered massive losses when interest rates rose, its depositors ran, and it had insufficient contingent-liquidity readiness.
2. By June 2022 at the latest, and perhaps as early as March, Federal Reserve supervisory staff knew, or should have known, that SVB was highly vulnerable to massive losses and a potentially ruinous run.
3. Despite that awareness, Board S&R and FRBSF supervisors did not require SVB to reduce its interest-rate risk or exposure to runs by uninsured depositors.
4. Their failure to do so did not result from the 2018 tailoring statute (EGRRCPA) or a less assertive supervisory culture promoted by the implementation of related policy priorities.
5. Board S&R has featured a culture of uncertainty regarding decision-making authority that dates back decades, and which is directly implicated in its failure to take decisive action at SVB.
6. Emphasis on collegial decision-making through committees fosters inaction due to a divorcing of responsibility, authority, and accountability across the Federal Reserve supervisory system.
7. Social media did not fuel the run at SVB: if “social media” is understood to imply platforms like Twitter, chatter regarding the run at SVB began after it was well underway; and if “fueled” is meant to imply either ‘triggering’ or ‘accelerating’ the run, then close analysis of time-stamped Twitter data disconfirms either interpretation.

A Series of Unfortunate Events…

The evidence assembled and reviewed by Starling concerning lapses in the supervision of and the ultimate failure of SVB does not fully sustain the now established public narrative regarding the relevant circumstances leading up to, during, and following from the Financial Sector Stress Events of 2023.

The Barr Report of April 2023 does not afford an adequately substantiated causal account of those events. Nor should it be expected to have done so. Assembled in a remarkably short period of time, while events were still fresh, the Barr Report was compiled almost exclusively on the basis of records then in the possession of the Federal Reserve.

It is an impressive study that draws several conclusions that now appear beyond doubt: SVB assumed consequential financial risks; its risk governance capabilities struggled to keep pace with its growth; supervisors failed to ensure that its most consequential vulnerabilities were addressed in a timely manner; and the bank experienced a run that was extraordinary in its speed and scale.

But the Barr Report advanced a causal narrative that has been interpreted as more definitive than the evidence assembled at the time permits. That established public narrative now encounters material conflicting and qualifying evidence curated through Starling's ongoing Probative Inquiry.

Starling finds the central supervisory failure was not due to any absence of adequate information or recognition of the growing vulnerabilities to which SVB was exposed. Sufficient information existed across frontline Reserve Bank examination teams, Board supervisory portfolio leads, specialist Risk and Surveillance personnel, Legal and Policy advisers, and senior-most Board leadership.

Nevertheless, due to long-standing uncertainties regarding where responsibility, authority, and accountability reside within the Federal Reserve System, supervisors lacked clarity regarding decision-rights and effective institutional mechanisms by which to determine whose assessment of the risks evident at SVB should govern the supervisory response.

SVB struggled to meet supervisory demands because supervisors struggled to articulate them with sufficient clarity and timeliness.

This is but one factor among several that must be considered before a fully causal account can be asserted. As such, this Preliminary Report does not seek to replace the established public narrative with a new monocausal explanation. Rather, it aims to identify where that narrative is supported, where it overstates the available evidence, where subsequent learnings materially complicate that narrative, and where they contradict it fully.

Our Inquiry also raises a question of continuing consequence: whether the organizational and supervisory weaknesses exposed by SVB's failure have since been remedied, or whether systemic fragilities persist within the Federal Reserve's practice of supervision. As a preliminary conclusion, the latter appears highly likely.

Detailed Discussion

The key findings of this Preliminary Report, based on the evidence included in the Appendix that accompanies it, are the following:

1. **SVB failed in 2023 after suffering unrealized losses on its bond portfolio that wiped out its capital on a fair-value basis, more than 90% of its deposits were uninsured, meaning they were prone to run, and it had insufficient contingent-liquidity readiness.**

   This finding is based exclusively on public documents referenced in the footnotes hereto and supported by the findings reported by Charles River Associates ("CRA") in the course of related analytics commissioned by Starling and reported here at Addendum Item 5.

   SVB tripled in size from 2019 until 2021 largely because its depositor base of venture-capital-backed companies raised enormous amounts of capital during the Covid-19 pandemic and deposited most of the proceeds from those capital raises in SVB.[8] Instead of using those deposits to fund loans, SVB chose to invest most of them in U.S. government securities and mortgage-backed securities guaranteed by Fannie Mae and Freddie Mac.[9] This resulted in a securities portfolio that accounted for between 50% and 60% of its total assets from mid-2021 until December 31st 2022.[10]

   SVB also gave depositors the option to have their deposits swept into third-party money market funds. Approximately $168 billion had been swept into money market funds at the end of 2022, showing that its depositors were ready and able to move funds away from SVB should they lose confidence in it.[11] Finally, SVB did not have sufficient emergency liquidity facilities lined up in advance and appears to have been operationally unready to borrow large amounts of cash from the Federal Home Loan Banks ("FHLBs") or the Federal Reserve's Discount Window ("Discount Window").[12]

   SVB classified nearly 80% of its bonds as held-to-maturity ("HTM") instead of available-for-sale ("AFS").[13] SVB's HTM bonds had an average weighted duration that rose from 4.6 at June 30th 2021 to 6.2 at year-end 2022.[14] Duration is a financial concept that measures the interest-rate sensitivity of interest-bearing debt securities. A bond portfolio with a duration of 6.2 means that for every 1% increase in interest rates the market value of the bond portfolio will decline by

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[8] See, e.g., SVB, Call Reports, Schedule RC-O (from March 31st 2019 until December 31st 2021) and Barr Report, 18-20.

[9] SVB, Call Reports, Schedule RC-B (from March 31st 2022 until December 31st 2022). The year-end 2022 call report showed total bonds of approximately $117bn (book value), with approximately $91bn (book value) being classified as HTM (78%).

[10] SVB, Call Reports, Schedule RC, lines 2a, 2b, 12 (from June 30th 2021 until December 31st 2022).

[11] Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data, 7.

[12] Ibid., 4; Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank* (Washington: Board of Governors, April 2023), https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm, 4, 59.

[13] SVB, Call Reports, Schedule RC-B (from June 30th 2021 until December 31st 2022).

[14] SVBFG, Quarterly Report on Form 10-Q, 91 (June 30th 2021); SVBFG, Annual Report on Form 10-K, 66 (December 31st 2022).

about 6.2%. Conversely, for every 1% decrease in interest rates, the market value of the bond portfolio will increase by about 6.2%.[15]

SVB hedged the interest-rate risk on its AFS securities until it allowed those hedges to lapse by the end of 2022,[16] resulting in a substantial increase in the duration of its AFS securities.[17] A hedge on a bond portfolio consists of a financial instrument whose value goes up when the value of a bond portfolio goes down. SVB did not hedge the interest-rate risk on its HTM bonds because hedging HTM bonds is generally considered to be inconsistent with their classification as HTM.[18]

SVB's accountants may have required it to reclassify its HTM bonds as AFS bonds had SVB hedged its HTM securities. This would have made its reported income more volatile because generally accepted accounting principles ("GAAP") require banks to reflect gains and losses on AFS bonds in their Other Comprehensive Income ("OCI") during the period when they are incurred.[19] Companies are not required to reflect gains and losses on HTM bonds in their OCI.[20] Instead, they are reported as unrealized gains and losses.[21]

At year-end 2022, over 90% of SVB's deposits were uninsured.[22] Uninsured deposits are generally considered to be more prone to running at the first sign of trouble than insured deposits because they are not protected against losses unless the Systemic Risk Exception ("SRE") to the Least-Cost Test is invoked. The Least-Cost Test requires the Federal Deposit Insurance Corporation ("FDIC") to resolve an insolvent bank using the method that is least costly to the Deposit Insurance Fund ("DIF").[23] The Systemic Risk Exception to that test allows the FDIC to protect uninsured depositors against losses.[24]

During Q1 2022, SVB suffered unrealized losses on its securities portfolio of about $8.3 billion because of a rise in interest rates.[25] That amounted to more than half its reported Common Equity Tier 1 ("CET1") capital of $15.1 billion.[26] By the end of Q3 2022, SVB had suffered accumulated unrealized losses on its securities portfolio of $18.7 billion because of a further rise

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[15] Frank J. Fabozzi, ed., *The Handbook of Fixed Income Securities*, 197-98 (McGraw Hill 7th ed. 2005); Andrew Metrick, "The Failure of Silicon Valley Bank and the Panic of 2023", 38 J. Econ. Persp. 133, 137 (2024).

[16] SVBFG, Current Report on Form 8-K, Exhibit 99.1, 3, note 1 to Investment Securities table (October 20th 2022) (relevant fixed to floating interest rate swaps fell from $11.3bn at the end of Q3 2021 to zero by end of Q3 2022).

[17] Ibid., lines 3 and 4 of the table under the heading "Investment Securities," which shows the duration of the AFS securities in June 2022 and September 2021 with and without the hedge.

[18] Accounting Standards Codification ("ASC") 815-20-25-43; ASC 320.

[19] ASC 320.

[20] Ibid.

[21] See, e.g., SVB, Call Report, Schedule RC-B, line 8, difference between Column A and Column B (September 30th 2022).

[22] SVB, Call Report, Schedule RC-O (December 31st 2022).

[23] 12 U.S.C. 1823(c)(4)(A).

[24] 12 U.S.C. 1823(c)(4)(G).

[25] SVB, Call Report, Schedule RC-B, line 8, sum of the difference between Column A and Column B and between Column C and Column D (March 31st 2022). Its unrealized losses on its bond portfolio were about $1bn at year-end 2021. SVB, Call Report Schedule RC-B, line 8, sum of the difference between Column A and Column B and between Column C and Column D (December 31st 2021).

[26] SVB, Call Report, Schedule RC-R Part I, line 19 (March 31st 2022).

in interest rates.[27] That amounted to more than its reported CET1 capital of $17.0 billion,[28] meaning it was insolvent on a fair-value basis.

The reason for these losses is that between year-end 2021 and March 10th 2023, the Federal Reserve raised the federal funds rate from near zero to over 4.5%.[29] As noted above, for every 1% increase in interest rates, a bond portfolio with an average weighted duration of 6.2 would suffer losses equal to about 6.2% of the bond portfolio. Those losses would be recognized on AFS bonds and reflected in a firm's reported OCI. This was not the case for SVB because it had opted out of reflecting Accumulated Other Comprehensive Income ("AOCI") in its capital.[30] Losses would be unrealized on HTM bonds and AFS losses would not be reflected in a firm's reported income statement or capital.

Despite the fact that SVB was insolvent on a fair-value basis after Q3 2022, SVB's depositors did not run until March 9th 2023. The run was unprecedented in its size and speed. SVB's depositors withdrew $41 billion[31] on March 9th and reportedly submitted orders to withdraw another $100 billion[32] on March 10th. That amounted to 25% and 60% of its total deposits of $166 billion.[33] The withdrawal orders for March 10th were not completed. Instead, SVB's chartering authority — the California Department of Financial Protection and Innovation ("DFPI") — revoked SVB's charter, closed the bank, and appointed the FDIC as its receiver on Friday morning, March 10th.[34]

2. **Fed supervisory staff knew, or should have known, by June 2022 at the latest or as early as March that SVB was highly vulnerable to massive losses, a run, and failure because of the size and duration of its bond portfolio, the likelihood that its uninsured depositors would run if they lost confidence in the bank, and its insufficient readiness to obtain emergency liquidity when needed.**

   This finding is based primarily on SVB's public call reports during 2022, the CRA analysis attached as Addendum Item 5 to this Preliminary Report, the OIG Report, and the summaries of the testimonies of [Board Staff 3] and [Board Staff 15] contained in the Appendix to this Preliminary Report.

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[27] SVB, Call Report, Schedule RC-B, line 8, sum of the difference between Column A and Column B and between Column C and Column D (September 30th 2022).

[28] SVB, Call Report, Schedule RC-R Part I, line 19 (September 30th 2022).

[29] Board of Governors, Open Market Operations (showing federal funds rate ranging from 0-0.25% at March 16th 2020 to 4.50-4.75% at February 2nd 2023), https://www.federalreserve.gov/monetarypolicy/openmarket.htm.

[30] Like most Category III and Category IV banks, SVB opted out of reflecting AOCI in its capital the way Category I and Category II banks are required to do. See 12 C.F.R. Part 217. As a result, not only were the unrealized losses on its AFS portfolio not reflected in its reported OCI, they were not reflected in its reported total capital.

[31] FDIC, *Dissecting Depositor Flight: An Analysis of the Spring 2023 Bank Failures*, 6 (May 2026). The study reports that SVB received $54bn of withdrawal requests on March 9th and honored $41bn of them. See also OIG Report, 9–10 (approximately $42bn of withdrawals on March 9th).

[32] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, i.; Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank,* Evaluation Report 2023-SR-B-013 (Washington: Board of Governors, September 25th 2023), https://oig.federalreserve.gov/reports/board-material-loss-review-silicon-valley-bank-sep2023.htm, 10.

[33] Ibid.

[34] FDIC Press Release (March 10th 2023), https://www.fdic.gov/resources/resolutions/bank-failures/failed-bank-list/silicon-valley.html.

SVB's call reports during 2022 publicly disclosed that (1) its bond portfolio accounted for more than half its total assets during 2022, (2) it was either substantially undercapitalized or insolvent on a fair-value basis throughout 2022, and (3) approximately 90% of its deposits were uninsured throughout 2022 and thus prone to run.[35]

For example, its call reports for the first and second quarters of 2022 publicly disclosed that it had unrealized losses on its bond portfolio equal to more than half its reported CET1 capital at the end of those quarters because of rising interest rates.[36] Its call reports for the third quarter and year-end 2022 publicly disclosed that it had unrealized losses on its bond portfolio that exceeded its reported CET1 capital at the end of those periods because of rising interest rates.[37] That means it was substantially undercapitalized on a fair-value basis at the end of the first half of 2022 and insolvent on a fair-value basis at the end of the third quarter and year-end 2022.

In addition, SVB was insufficiently ready to borrow emergency liquidity from the FHLBs or the Discount Window.[38] According to the researchers at CRA, the Federal Reserve supervisory staff knew about the "[m]aterial weaknesses in SVB's contingent-liquidity readiness" because SVB "had repeatedly failed its own liquidity stress tests, had not completed planned expansion of repo capacity, had not conducted test transactions and had limited collateral pre-positioned at the discount window."[39]

It is notable that the Barr Report did not specifically mention SVB's call reports or identify that they should have put the supervisory staff on notice that SVB was substantially undercapitalized on a fair-value basis or highly vulnerable to a run by uninsured depositors as early as March 2022.[40] But SVB's call reports and insufficient contingent-liquidity readiness were known to, or observable by, Board S&R and the FRBSF supervisory staff and, thus, they either knew, or should have known, as early as March 2022 that SVB was highly vulnerable to massive losses, a run, and potential failure.

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[35] SVB, Call Reports, Schedule RC and RC-B (from March 31st 2022 until December 31st 2022).

[36] SVB, Call Reports, Schedule RC-B, line 8, difference between Column A and Column B and between Column C and Column D (March 31st 2022 and June 30th 2022).

[37] SVB, Call Reports, Schedule RC-B, line 8, difference between Column A and Column B and between Column C and Column D (September 30th 2022 and December 30th 2022).

[38] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4, 59.

[39] Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data, 4, citing the Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4, 59.

[40] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 22-23 & note 40 (After noting that "[i]n 2022, as interest rates began to rise, SVBFG saw a rapid increase in unrealized losses in both its HTM and [AFS] portfolios (figure 9)," footnote 40 dismissed the risk of unrealized losses on its HTM securities, stating that "[w]hile unrealized losses must be disclosed in financial statements, they do not change the assets' value on the balance sheet itself."). This statement seems to confuse accounting standards with real economic value.

The OIG Report discussed a relevant S&R internal report issued in June 2022:[41]

> *In June 2022, the Board's surveillance team issued a special topic report discussing the high level of unrealized losses on the investment securities at many banks as a result of interest rate increases. The surveillance team identified SVBFG as one of the institutions with the highest levels of unrealized losses and with a large portion of investments in its HTM portfolio.[42] The report cautioned that those institutions with a high level of unrealized losses and a large share of HTM investment securities may need to realize sizable losses when they sell investment securities in their HTM portfolios in case of liquidity needs, such as a large deposit outflow. As of June 2022, the Board's surveillance team also placed SVBFG on the Systemwide holding company watch list with a high adverse change probability warning, indicating the likelihood of a downgrade to its supervisory rating in the near future.*
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> . . . .
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> *After identifying SVB as one of the institutions most at risk, the Board surveillance team continued to warn of the effect of rising rates on banking conditions through surveillance reports available to System examiners and presentations and communications to supervision officials and staff.[43]*

The Barr Report included a reference to the June Fed Surveillance report, but only in an appendix to the main report entitled "Additional Topics":

> *The theme of higher rates was the focus of a special report on risks associated with unrealized losses on investment securities in June 2022. SVBFG was included in a list of banks with the highest ratios of unrealized losses relative to common equity tier 1 (CET1) capital and was larger than any bank ranked higher.[44]*

This special topic report and watch list were provided to Board S&R and FRBSF supervisory staff in June 2022. They were also available to the supervisory staff between June 2022 and March 2023. Thus, the supervisory staff knew, or should have known, as early as June 2022 that SVB was highly vulnerable to massive losses and failure based on interest-rate risk and liquidity risk.

The Barr Report also stated that Board Risk and Surveillance staff warned the VCS and the full Board that SVB was highly vulnerable to losses based on interest-rate risk and liquidity risk in a

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[41] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank,* Evaluation Report 2023-SR-B-013 (Washington: Board of Governors, September 25 2023), https://oig.federalreserve.gov/reports/board-material-loss-review-silicon-valley-bank-sep2023.htm.

[42] Because SVB accounted for roughly 99% of the consolidated assets of SVBFG including all of its AFS and HTM bonds, they are economically indistinguishable for purposes of this statement. Compare SVB, Call Report, Schedules RC and RC-B, 19, 21 (December 31st 2022) (showing total assets, AFS securities, and HTM securities (at book value) of $209bn, $28.5bn, and $91.3bn, respectively) to SVBFG, Annual Report on Form 10-K, 95, 123, 125 (December 31st 2022) showing total consolidated assets, AFS securities, and HTM securities (at book value) of $211.8bn, $28.6bn, and $91.3bn, respectively).

[43] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 26-27.

[44] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 67.

presentation to the Board on February 14th 2023.[45] Yet despite the availability of SVB's public call reports during 2022, the June 2022 special topic report, and his participation in the meetings of the Federal Open Market Committee ("FOMC") that raised interest rates aggressively after July 2022, then-VCS Barr testified at a hearing before the Senate Banking Committee in March 2023 that he did not learn "about the issues at Silicon Valley Bank with respect to interest rate risk" until the full Board meeting in mid-February 2023.[46]

In an interview with Starling, [Board Staff 15][47] argued that SVB's failure resulted from a "toxic combination of many things," beginning with its extraordinary growth. SVB doubled in size during 2020 and 2021. Historically, rapidly growing banks fail at a substantially higher rate than slower-growing institutions: "We've always known that fast growth was an indicia of potential future distress. But that bank grew super-fast."

To this were added a remarkably high proportion of uninsured deposits, a depositor base concentrated in a small number of industries, and a very large bond portfolio carrying substantial duration risk and, from early 2022 until early 2023, significant unrealized losses. None of these facts was obscure. "All of this information was public," [Board Staff 15] emphasized. "Every fact I've just mentioned — the rapid growth, the 90 plus percent uninsured deposits, the concentrated depositor base, the giant securities portfolio, the huge duration risk and mark-to-market losses in the book. Everybody knew that, and almost nobody seemed to be worried about it."

The problem, in [Board Staff 15]'s telling, was not that supervisors were unaware of the underlying facts. Nor, in [Board Staff 15]'s view, was the problem principally a lack of information. Supervisors possessed information unavailable to the public, but [Board Staff 15] did not consider that additional information essential to recognizing the danger; public disclosures were sufficient to reveal the enormous duration risk, the potential for rapidly rising rates to produce severe unrealized losses, and the instability created by a deposit base that was overwhelmingly uninsured, [Board Staff 15] insisted.

"You simply needed to be able to connect all those dots and see that this concatenation of facts could result in a really, really rapid sudden demise of that firm," [Board Staff 15] said. "Silicon Valley Bank, everybody knew, ex ante, there was a lot of interest-rate risk going on there," [Board Staff 15] explained, "but no one knew if the amount of interest-rate risk that was going on there was exceeding some risk tolerance threshold, because I don't think we really had adequately set one."

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[45] Ibid., 14, note 26, 70.

[46] Testimony of VCS Barr before the Senate Banking Committee (March 28th 2023), Transcript 44 (in response to a question from Senator Sinema as to whether he first heard about SVB's extraordinary exposure to interest-rate risk in October or November 2022), https://www.govinfo.gov/content/pkg/CHRG-118shrg54561/pdf/CHRG-118shrg54561.pdf.

[47] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

[Board Staff 3] reinforced the views shared with Starling by [Board Staff 15]. In the 2022 timeframe, [Board Staff 3] explained, the Board's Risk function ("Risk") sat within Board S&R but was intended to look horizontally across the Federal Reserve's supervisory portfolios, to identify emerging threats, compare their significance across institutions, and bring concerns to the attention of the portfolios responsible for individual banks.

[Board Staff 3] recalled that the Board's Surveillance staff, which was headed by the same Board officer who headed the Board's Risk function, had identified interest-rate risk as an emerging trend by the first quarter of 2021. As rates began to rise in 2022, Risk became increasingly concerned about the combination of unrealized securities losses and the liquidity pressures that could arise if banks were required to convert those securities into cash.

[Board Staff 3] explained that, after the first quarter of 2022 until SVB failed in March 2023, Risk and Surveillance staff warned the Director of the LFBO portfolio and the head of the FRBSF supervisory team that there was a high-risk possibility that SVB could suffer losses because of its extraordinary exposure to interest-rate risk and liquidity risk. The Risk and Surveillance staff also warned the Deputy Director for Supervision. The SVB examination team at the FRBSF was principally responsible for supervising SVB during the period leading up to its failure, subject to the oversight of the LFBO Director, the Deputy Director for Supervision, the Board S&R Director and the VCS.[48]

"Looking back at examination reports, examiners just didn't see the risk early enough," [Board Staff 3] said. "I think it had been too long. I think people had just fell [sic] asleep on interest-rate risk, and people just didn't remember the '80s and '90s."

[Board Staff 3]'s account resists the proposition that supervisors were unaware of the danger. "I think some people saw it," [Board Staff 3] said. Reserve Bank personnel had published analyses concerning long-duration securities holdings, and Risk and Surveillance had begun calling attention to unrealized losses and the liquidity consequences that could follow. But, [Board Staff 3] observed, that analysis "didn't seem to translate into a supervisory response."

"I think people saw the risk," [Board Staff 3] explained. "They just assigned a different probability of something bad happening." In [Board Staff 3]'s characterization, Risk believed that the magnitude of the potential losses meant that "the probability didn't matter." Even a scenario regarded as unlikely warranted supervisory attention where its consequences could be severe.

[Board Staff 3] remembered this disagreement carrying into discussions with the leadership of the large-bank supervisory portfolio. SVB was not the sole bank that faced extraordinary interest-rate risk and liquidity risk, but SVB nevertheless became a specific focus of Risk's concern. [Board Staff 3] recalled that the Risk staff had urged the Director of the LFBO portfolio

[48] Addendum Item 2 — Board S&R and FRBSF Supervision.

and the head of SVB's supervisory team at the FRBSF to downgrade SVB's liquidity rating months before the bank failed.

Risk and Surveillance staff also warned the Board of Governors about SVB's vulnerability to losses in a presentation to the Board in mid-February 2023, yet that warning did not produce an intervention by the Board S&R staff.

When news of SVB's intended capital-raising transaction in March 2023 reached the Director of the Risk and Surveillance staff, according to [Board Staff 3]'s recollection, the Director exclaimed, "That bank's going to fail. Oh my God, that bank's going to fail."

3. **Board S&R and FRBSF supervisory staff failed to require SVB to reduce the duration of its bond portfolio, to restructure its deposits to be less runnable, or to improve its readiness to obtain emergency liquidity if needed, even though they knew or should have known about SVB's high vulnerability to massive losses, a run, and potential failure.**

This finding is based in large part on a written statement provided to Starling by the former Independent Directors of SVB ("Directors' Statement"),[49] an interview conducted with former SVB independent director Mary Miller,[50] the analysis by CRA commissioned by Starling,[51] OIG report findings,[52] and interview comment offered to Starling by [Board Staff 15].[53]

In the Directors' Statement, the Independent Directors of SVB indicate that Board S&R and FRBSF supervisory staff never directed that SVB reduce the duration of its bond portfolio or its exposure to uninsured depositors.

Indeed, following on their 2021 examination of SVB, Fed supervisory staff downgraded SVB's composite CAMELS rating as well as its Management component rating from 2 (Satisfactory) to 3 (Less than Satisfactory). Notably, they did not downgrade the Liquidity or Sensitivity to market (i.e., interest-rate) risk components, suggesting that they were satisfied with SVB's exposure to interest-rate risk and liquidity risk and the manner in which SVB sought to manage those risks. Nor did the supervisory staff require SVB to reduce the duration of its bond portfolio or its exposure to uninsured depositors. Instead, it issued three MRAs related to the process by which SVB managed its liquidity risk.

In an interview with Starling, Mary Miller, an independent director at SVB and chair of the board's audit committee, explained that Board S&R and FRBSF supervisory staff imposed 54 MRAs or MRIAs on SVB between 2020 and 2022. None of these MRAs or MRIAs directed SVB to reduce the duration of its bond portfolio or its exposure to uninsured depositors. Instead, most

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[49] Addendum Item 4 — SVB Directors' Statement.

[50] Appendix A-8, Mary Miller, 17 March 2026.

[51] Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data.

[52] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 24-28.

[53] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

of them related to technology and operational matters, including BSA/AML, cyber risk, and identity-access management. Remediation consumed substantial board attention and SVB devoted considerable resources to this effort.

We note that the OIG Report is largely consistent with this assertion:

> *The [Federal Reserve's] March 2019 examination report [of SVB] highlighted liquidity risk management concerns and noted that the bank's funding structure was primarily concentrated in private equity and venture capital firms whose deposits experience larger-volume, irregular cash flows. The report notes that management had not formally addressed the risks associated with these funding concentrations and that SVB's liquidity risk management should be consistent with the bank's risk appetite, complexity, risk profile, and scope of operations. As a result, examiners issued SVB a Matter Requiring Attention (MRA) related to liquidity risk management. Despite noting these concerns, FRB San Francisco examiners assigned SVB a CAMELS liquidity component rating of 1 because SVB had ample sources of funds on favorable terms to meet liquidity needs. In our opinion, examiners did not balance the lack of appropriate liquidity risk management with the bank's financial results. We believe examiners missed an opportunity to downgrade the liquidity component.*[54]
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> *In August 2022, FRB San Francisco examiners . . . issued CAMELS ratings for SVB. Examiners downgraded SVB's composite rating and management component rating to 3 and the liquidity component [from 1] to 2 . . . Despite the surveillance team's reports, examiners commented in the supervisory letter that SVB's balance sheet structure mitigated some of the risks associated with the recent rapid growth by having 64 percent of the bank's total assets in cash and fixed income securities, of which 93 percent were invested in U.S. Treasuries and government agency-issued securities and did not consider the changing market environment and its potential effect on the bank's financial condition.*[55]
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> *After identifying SVB as one of the institutions most at risk, the Board surveillance team continued to warn of the effect of rising rates on banking conditions through surveillance reports available to System examiners and presentations and communications to supervision officials and staff. However, the SVB DST did not shift its attention to the rising interest rates and SVB's unrealized losses on investment securities and did not sufficiently assess the extent of the potential effect to the bank's capital and liquidity. In our opinion,*

[54] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 24.
[55] Ibid., 27.

examiners should have heeded the warning signs and taken immediate actions to closely scrutinize the risks of rising interest rates on SVB's investment securities portfolio and the sufficiency of the bank's liquidity.[56]

According to both the Barr Report and the analysis by CRA commissioned by Starling, SVB had repeatedly failed its liquidity stress tests and was not ready to use the Federal Reserve's standing repo facility or to borrow substantial amounts of emergency liquidity from the FHLBs or the Discount Window. And yet, the Board S&R and FRBSF supervisory staff did not take decisive action to require SVB to improve its contingent-liquidity readiness.[57]

This is consistent with the views expressed during our interview with [Board Staff 15], who noted that even the exam findings at SVB that had focused on interest-rate and liquidity risk were nevertheless not aimed at addressing those risks in a manner calculated to reduce them. Supervisors were not, he said, directing SVB to hedge substantially more of the duration risk in its securities portfolio or to reduce the portfolio's duration. Instead, "It was a lot of process and procedure and governance and controls criticism that may or may not have helped."

4. **The failure of Board S&R and FRBSF supervisors to require SVB to reduce its interest-rate risk or liquidity risk did not result from EGRRCPA or a less assertive supervisory culture promoted by related supervisory policy priorities.**

This finding is based primarily on Starling's interviews with [Board Staff 2] and [Board Staff 14], summaries of which are contained in the Appendix to this Preliminary Report.[58]

The Barr Report included four principal findings,[59] the fourth being that the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA"), and related policy priorities implemented during the tenure of former VCS Quarles, promoted a less assertive supervisory culture.[60] According to [Board Staff 14], the four conclusions that had been presented in the Barr Report were to have been read in a descending order of significance. The fourth finding, concerning EGRRCPA, tailoring, and related shifts in supervisory policy, was the least important of the findings.

Moreover, [Board Staff 14] described the fourth conclusion as having been "poorly understood." The Barr Report, he explained, "did not say there was a bad law" [EGRRCPA]. Its criticism, rather, was implementation: "the way it was implemented," he believes, created "step functions in how supervision was done" and resulting confusion "as firms move between portfolios."

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[56] Ibid., 27-28.

[57] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4, 59; Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data, 4.

[58] Appendix A-2, [Board Staff 2], 5 May 2026; Appendix A-11 [Board Staff 14], 30 April 2026.

[59] See text accompanying note 1 of this Preliminary Report.

[60] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, i, iii, 1, 10, 11, 35-36.

Further, [Board Staff 2] insisted, former VCS Quarles never instructed examiners to reduce the intensity of supervision. Rather, Quarles's emphasis was on ensuring that supervisory actions were grounded in applicable law, regulation, and legitimate supervisory authority. Those policies may have changed things at the margins, [Board Staff 2] said, "but the core really stay[ed] the same." It should be noted that [Board Staff 2] was the Barr Report writer tasked most specifically with an examination of supervisory lapses that may have contributed to SVB's failure and/or S&R's lack of alacrity in addressing the risk thereof.

[Board Staff 2] was emphatic about former VCS Quarles's likely response had the immediate danger to SVB been presented to him clearly: "I've heard Quarles speak about the [Barr] Report and sort of the key takeaway for the tone of supervision stuff, that he never said, 'Turn down supervision.' And I agree, he did not," [Board Staff 2] said. "And had he seen that risk and we recognized it and we told him, 'Hey, there's this big risk at SVB,' he would have said, 'Go do something about it.' He may have picked up the phone and called them himself," [Board Staff 2] argued. "That was my impression of the man."

[Board Staff 2] allowed that there may have been a distinction between what Quarles had intended and what supervisory personnel may have believed his expectations to be. [Board Staff 2]'s decades of experience in bank examination led him to conclude that examiners sometimes "overreact" to or misinterpret the priorities announced by any Vice Chair for Supervision. "Honestly, I would've stopped at Key Takeaway 2" [of the Barr Report], [Board Staff 2] concluded. "The bank screwed up, we missed it, end of story," he asserted.

[Board Staff 14] did not retreat from the conclusion that the stance of supervisory policy had shifted along with a change in VCS. "Was that part of the story? I think it was," [Board Staff 14] said. "I think the evidence supports that it was." But he immediately qualified the significance of that finding: "Was it the driving factor? No."

In [Board Staff 14]'s view, public and congressional attention was disproportionately focused on the Barr Report's fourth conclusion. "It seemed misguided from the beginning that some thought the fourth conclusion was the most important thing," he observed. Nor did [Board Staff 14] understand the fourth finding principally as an indictment of former VCS Quarles. His own explanation was more institutional. Different policymakers bring "different risk appetites" to the supervisory function, he said, and the resulting differences are "not a question of right or wrong"; they reflect choices about "how do I want to prioritize and make trade-offs?"

5. **Board S&R has struggled with a culture of uncertainty regarding decision-making authority that dates back decades, and it is this culture that may explain most pointedly why Board S&R and the FRBSF supervisory staff failed to take more prompt and decisive action to require SVB to remediate the vulnerabilities that contributed to its failure.**

   This finding is based largely on the testimony of former Governor Daniel Tarullo, former VCS Quarles and [Board Staff 2], [Board Staff 3], [Board Staff 14], and [Board Staff 15].

   If Board S&R and FRBSF supervisory staff knew of the vulnerabilities that put SVB at risk and yet failed to take decisive action to require SVB to reduce the size and duration of its bond portfolio, restructure its deposits to be less runnable, or require SVB to improve its readiness to obtain emergency liquidity, then we must ask — why not?

   The Barr Report asserts that one principal reason was the enactment of EGRRCPA in 2018, which raised the asset thresholds for the applicability of Enhanced Prudential Standards for the large banks, and a less assertive supervisory culture that stemmed from a shift in consequent policy priorities advanced by former VCS Quarles.

   An alternate view emerges through Starling's interviews with both former VCS Quarles and former Governor Tarullo: excessive risk aversion, indecisiveness, and finger-pointing are common features of the supervisory culture in Board S&R that dates back decades, both contend. They further insist that no past oversight governor or VCS role-holder is responsible for creating this culture — and, notably, none has been successful in trying to change it.

   This culture is characterized by a fear of taking action that may later be viewed as mistaken and being held accountable for such. This is exacerbated by a cultural norm to which examiners "know" they are expected to conform: an examiner is not supposed to cross the line from supervising to "managing" a firm. Decisive supervisory actions that would have mandated the risk remedies that appear to have been necessary at SVB were considered by many of the Board S&R staff whom Starling interviewed as likely to have been viewed as crossing that line.

   In the absence of 100% certainty that such an action would later be viewed as having been "right," staff may have concluded that inaction was the better option. In this connection, former Governor Tarullo remarked that direction from the top is essential. When senior leadership's policy position is unclear, he said, "the safest thing [for supervisory staff to do] is probably not to push it very much."

   Tarullo believes that this culture of indecision can have disastrous results. He pointed to the Board's Surveillance function as having identified the mounting risks at SVB in June 2022. "What the heck happened?" he asked. "Nothing happened apparently, but why?"

When SVB's internal models produced unfavorable results concerning interest-rate risk and liquidity stress, management appears to have changed the assumptions used in the models. "A redder flag is hard to imagine," former Governor Tarullo commented. And yet no decisive action was taken.

6. **Emphasis on collegial decision-making through committees and a pervasive divorcing of responsibility, authority, and accountability across the Federal Reserve supervisory system impeded agreement on whether or how to take decisive remedial action at SVB.**

   Where finding number 5, immediately above, focuses on cultural predilections that promote hesitance to act, this finding highlights a lack of clarity around the structural ability to act at all. It is based largely on the testimony of various Board staff, especially [Board Staff 4], [Board Staff 13], and [Board Staff 10], as well as former Governor Daniel Tarullo, and former VCS Quarles.

   Supervision is formally delegated to the Reserve Banks, while supervisory expectations, policy priorities, escalation pathways, legal review, and reputational accountability run up through the Board. This structure seems to have created a jurisdictional no-man's land; Reserve Bank personnel might possess delegated authority but nevertheless seek alignment with the Board before exercising it, while Board personnel might exert substantial influence over supervisory judgments while maintaining that direct responsibility for such remains with the Reserve Bank.

   A consequent lack of clarity around responsibility, authority, and accountability — within Board S&R and between the Board and the Reserve Banks — appears to have contributed to the culture of indecision that is directly salient in connection with the failure of SVB.

   Former VCS Quarles offered the related view that the decision-making process requisite to drive action at Board S&R has long been mired in diffused authority, exercised through a "miasma of committees," amidst an institutional reluctance to prioritize supervisory attention. This view was echoed by many S&R staff interviewed by Starling.

   - [Board Staff 10] argued that supervisory actions that emerge from this "miasma" were often directed at improving risk-management *processes*, rather than targeting risk reduction directly.
   - [Board Staff 13] described supervisors as emphasizing stronger risk-management *frameworks* rather than insisting upon concrete risk-reduction measures, in keeping with the account offered by the Independent Directors of SVB in the Statement they provided Starling.
   - [Board Staff 4] recalled that [Board Staff 14] observed, "No one knows who can make a decision to permit something [within Board S&R], but every single person here holds a 'pocket veto' to prevent something."
   - [Board Staff 10] described the consequent recurring tension: Risk teams raise alarms and highlight concerns, while portfolio teams may respond that such matters are "not a priority."

This history of making critical decisions by committee is consistent with a cultural predilection to avoid accountability for perceived mistakes in actions taken. While an individual may be deemed negligent, reckless, or willful, a committee diffuses accountability.

In connection with SVB, the decision whether to require the bank to reduce the size or duration of its bond portfolio, restructure its deposits to be less runnable, or to improve its readiness to borrow large amounts of emergency liquidity when needed, would have been made by an informal committee that involved the Director of the LFBO portfolio, the Deputy Director for Supervision, the Director of S&R, the head of the FRBSF examination team, and various other officers and managers within Board S&R and members of the FRBSF examination team. As they considered whether to take action and what action to take, they appear to have been unable to reach consensus on whether to do anything and, if so, what to do.

To cite one specific example, FRBSF had recommended in late 2022 bringing an informal (confidential) enforcement action against SVB to require it to remediate its liquidity risk management. But instead of finalizing that enforcement action before SVB failed in March 2023, Board S&R and the FRBSF supervisory staff decided to delay issuing such an action until they could complete a targeted examination on liquidity risk. Unfortunately, SVB failed before the informal committee had completed its deliberation.

Commenting on this, former Governor Tarullo observed that, if a formal or informal committee does not reach a decision on an issue, "the VC or the Director of the Supervision and Regulation Division may have to make the decision." This distinction is consequential. The supervisory lapses described in our initial interviews, reported upon herein, did not arise because too many people were permitted to contribute views. Rather, they appear to have followed when peer consultation had no terminus, when the absence of agreement prevented action by default, and when no identified official could determine whether or when the institution should take action.

7. Social media did not fuel the run at SVB.

This finding is based on the Social Media Analysis dated July 24th 2026 performed by Charles River Associates ("CRA"), attached as Addendum Item 6 to this Preliminary Report ("CRA Social Media Analysis").

The Barr Report asserts that the run on SVB was "fueled" by social media.[61] That assertion was not substantiated by any data or analysis. At Starling's request, CRA conducted "an independent, data-driven analysis to examine the effect that social media may have had on SVB's failure, if any."[62] CRA first defines "social media" as "publicly reviewable commentary" to distinguish it from "private communications channels such as group texts, emails, and chats."[63] Based on a

[61] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4, 24.

[62] Addendum Item 6 — Social Media Analysis Re The Failure of Silicon Valley Bank, 2.

[63] Ibid., 5.

forensic analysis of Twitter commentary about SVB in the months leading up to and the days immediately following March 10th 2023, CRA made the following key findings:

- “The topic of SVB did indeed go viral on social media, but only after the bank run was well underway.”
- “Several prescient posts were identified in the weeks and months preceding SVB’s failure, discussing fundamental problems at SVB — including exposure to the tech sector downturn and a high concentration of uninsured deposits.”
- “CRA also examined SVB-related posts during the run period itself, to understand whether social media ‘fueled’ the bank run. CRA defined the SVB run period as 12 AM EST on March 8, 2023 through 12pm EST on March 10, 2023.”
    - “The vast majority of posts during the run period came from third-party accounts commenting on peripheral themes.”
    - “CRA also identified a smaller subsection of relevant first-person Twitter posts about the VC community advising founders to move money out of SVB.”
- “In general, these tweets confirm a wave of coordinated withdrawal advice coming from the VC firms to tech founders occurring on March 9. However, these social media posts also indicate that most of that withdrawal advice happened outside the publicly viewable social media channels, with people subsequently posting on Twitter about the flurry of communication that had occurred earlier.”
- “By the evening of March 9, 2023, mainstream media outlets (including Bloomberg, Axios, TechCrunch and The Information) had all published articles indicating that VC firms were advising their founders to withdraw money from SVB.”

“In sum, the analysis reveals that early posts in 2022 and early 2023 highlighting issues at SVB received limited attention and had no measurable effect on SVB itself or the markets,” CRA concludes. While CRA did identify Twitter posts from individuals discussing a withdrawal of funds from SVB during the bank run period, CRA’s analysis indicates that these posts account for “less than 0.6% of all SVB-related posts during the bank run period, and less than 0.02% of the total volume of Twitter activity referencing SVB from October 2022 through March 31, 2023…”

Moreover, the majority of first-person posts reviewed by CRA indicate that the run was “initiated via private communications (DMs, emails, texts, internal corporate messaging platforms, and phone calls) from VCs to startup founders on or before March 9, 2023…” As such, CRA’s analysis “does not support the characterization of the SVB run as ‘social media fueled.’”[64]

[64] Addendum Item 6 — Social Media Analysis Re The Failure of Silicon Valley Bank, 12-15.

Nevertheless, the assertion that social media fueled the run at SVB was repeated, almost verbatim, in 2023 reports about SVB's failure published by the Basel Committee on Banking Supervision ("BCBS")[65] and the Financial Stability Board ("FSB").[66]

The Basel Committee's *The 2023 banking turmoil and liquidity risk: a progress report* (October 2024) further notes "the role of social media and the digitalisation of financing in hastening the speed and impact of a bank's distress" in connection with "liquidity risk dynamics."[67] Withdrawals at SVB, the BCBS argues, "were amplified by widespread access to digitalisation and social media," adding that this, in turn, prompts "considerations for supervisors."

"Technological developments and social media could accelerate future bank runs, with implications for liquidity risk management practices and supervision," the FSB asserts in its own 2024 paper.[68] "Furthermore, the implications of technological developments and social media for deposit stickiness suggest that there could be more such runs in the future."

Perhaps the first effort to provide an empirical foundation for the "social-media-fueled" account of SVB's failure was an academic working paper, "Social Media as a Bank Run Catalyst," by J. Anthony Cookson, Corbin Fox, Javier Gil-Bazo, Juan Felipe Imbet, and Christoph Schiller, dated April 18th 2023 — less than six weeks after SVB failed.[69]

The paper opens with the categorical assertion: "Social media fueled a bank run on Silicon Valley Bank (SVB)..." Press attention followed immediately. On April 24th — four days prior to the release of the Barr Report — Axios reported that "Twitter fueled" the run at SVB,[70] while *Fortune* described the paper as the first major study to examine the issue and announced that its authors had confirmed that social media contributed to SVB's collapse.[71] Such coverage gave the paper's causal formulation wide public visibility.

Thereafter, the paper was presented widely within policy circles, lending the paper's conclusions greater authoritative weight. For instance, it was posted to the FDIC website in connection with its 22nd Annual Bank Research Conference, at which the authors presented the study, on September 28th 2023.[72] The paper received on-going attention from policymakers throughout

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65 Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*, (BIS October 2023), https://www.bis.org/bcbs/publ/d555.pdf, 10.

66 Financial Stability Board, *2023 Bank Failures: Preliminary Lessons Learnt for Resolution*, (Basel: Financial Stability Board October 10th 2023), https://www.fsb.org/uploads/P101023.pdf, 19.

67 Basel Committee on Banking Supervision, *The 2023 Banking Turmoil and Liquidity Risk: A Progress Report*, (BIS October 2024), https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=6292&context=ypfs-documents2, 1.

68 Financial Stability Board, *Depositor Behaviour and Interest Rate and Liquidity Risks in the Financial System: Lessons from the March 2023 Banking Turmoil*, (Basel: Financial Stability Board October 23rd 2024) 10th https://www.fsb.org/uploads/P231024.pdf, 17.

69 J. Anthony Cookson et al., "Social Media as a Bank Run Catalyst" (working paper, April 18th 2023), 1, https://www.fdic.gov/system/files/2024-07/cookson-paper.pdf.

70 Emily Peck, "Twitter Fueled Run on Silicon Valley Bank, New Paper Finds," Axios, April 24th 2023, https://www.axios.com/2023/04/24/twitter-svb-bank-run.

71 Will Daniel, "Twitter Poses a Risk to the Financial System and Helped Fuel the SVB Run, Says First Major Study to Investigate the Topic," Fortune, April 24th 2023, https://fortune.com/2023/04/24/twitter-financial-system-risk-silicon-valley-bank-run-study/.

72 Federal Deposit Insurance Corporation, "22nd Bank Research Conference Agenda," September 28–29th 2023, https://www.fdic.gov/center-financial-research/22nd-bank-research-conference-agenda.

the balance of 2023, and its authors were invited to present their findings at several events hosted by the Fed and other regulatory agencies.

Following further revision and – critically – peer review, the Cookson paper was published in the February 2026 volume of the *Journal of Financial Economics*.[73] It is notable that the categorical assertion that social media "fueled" the run at SVB disappears entirely. Rather, the authors conclude, "We find that negative Twitter sentiment does not amplify bank run risks."

[73] J. Anthony Cookson et al., "Social Media as a Bank Run Catalyst," *Journal of Financial Economics* 176 (2026): 104218, https://doi.org/10.1016/j.jfineco.2025.104218.

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Introduction

Is 'Why did this bank fail?' the right question?

Or, instead, is the right question, 'Why was it so important that this bank failed?'

[Board Staff 14]
Barr Report, principal writer

Mandate

As Vice Chair for Supervision Michelle W. Bowman observed in her November 2024 speech, *Approaching Policymaking Pragmatically*,[74] the bank failures of Spring 2023 exposed significant flaws in risk governance among firms and significant lapses in supervisory oversight capabilities.

Against this backdrop, Starling Advisory Group was engaged by the Division of Supervision & Regulation ("S&R") of the Board of Governors of the Federal Reserve System (the "Board") to conduct a Probative Inquiry into the 2023 financial sector stress events, and to translate the resulting evidence and analysis into an Independent Expert Review and Recommendations for Reform.

Under the terms of that mandate, S&R directed Starling to plan and execute a study of supervisory processes and activities leading up to, during, and following the 2023 events. Starling was expected to draw upon the full range of evidentiary sources bearing on the supervisory record, to include interviews and meetings with Federal Reserve leaders and staff at the Board and the various Reserve Banks, Fed artifacts such as examination reports, and internal review documents.

To that end, S&R directed Starling to conduct stakeholder interviews, internal document reviews, and a re-examination of the findings put forward by the April 2023 *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank* ("The Barr Report").

Starling was further expected to look beyond the Federal Reserve's own record. The scope of the present engagement anticipates that Starling would explore the views of bank executives, market participants, academics, think tanks, law firms, and trade associations, among others — reflecting the mandate's emphasis on independence and evidentiary rigor.

[74] Michelle W. Bowman, "Approaching Policymaking Pragmatically," speech at the Forum Club of the Palm Beaches, West Palm Beach, FL, November 20, 2024.

Scope

In-Scope:

- Covered firms: SVB, SVB Financial Group ("SVBFG"), and Silvergate Bank, solely in as much as the supervision and failures of SVB, SVBFG, and the failure or voluntary liquidation of Silvergate Bank may help Starling to understand and evaluate any deficiencies in the supervision of SVB, SVBFG, and Silvergate Bank by Board S&R and Federal Reserve Bank of San Francisco ("FRBSF") Supervision, and develop lessons from those identified deficiencies.
- Supervisory processes and practices: scoping, findings, ratings, escalation, remediation follow-through, enforcement consideration pathways, resourcing and expertise, portfolio transitions, and crisis coordination.
- Federal Reserve System coordination mechanics: division of roles, handoffs, and decision-rights across Board S&R and FRBSF Supervision (including review layers and escalation pathways).
- Counterfactual overlays, but solely as relevant to any deficiencies in the supervision of SVB or SVBFG by Board S&R or FRBSF Supervision: e.g., peer institutions with similar publicly observable risk profiles and stress-period signals that did not fail.

Out of Scope:

- Attribution of intent or performance evaluation of named individuals: the unit of analysis for the Inquiry is the design and operation of risk governance and supervisory mechanisms, as evidenced by artifacts and interviews. Where patterns of failure are identified, characterization is offered at the mechanism/system level based on evidence, not as an attribution of personal motive.
- 'Relitigation' of outcomes: after-the-fact assessments of whether a particular action had been taken or should have been taken; the focus is on the design and operation of escalation and enforcement-consideration pathways (criteria, decision-rights, documentation, counsel inputs, and follow-through) and whether they reliably produced timely, proportionate supervisory response.
- Comparator analysis using confidential information: for still-operating firms, only public sources will be utilized unless access to confidential information is facilitated by S&R or otherwise voluntarily offered to Starling by the leadership of such firms.

Methodology

Starling's Probative Inquiry is the fact-gathering foundation of our engagement. It is evidence-led and mechanism-focused: its concern is the design and operation of supervisory and risk governance mechanisms — how signals were identified, interpreted, escalated, and acted upon — rather than the performance or intent of individuals.

The Inquiry follows a deliberate "narrow-broad-narrow" design. It opens narrowly, with a small set of priority hypotheses drawn from the public record and prior postmortems, treating those analyses and critiques not as settled conclusions but as testable propositions. It then broadens into wide fact-finding, before narrowing once more as the evidence itself shows where the most probative questions lie. Lines of inquiry are refined continuously as contradictions surface and gaps are resolved.

That fact-finding rests on two pillars: a comprehensive review of the documentary record, and interviews with those who possess relevant knowledge of the events and the supervisory processes that surrounded them.

Our artifact review privileges materials that are contemporaneous and decision-revealing, including drafts, redlines, and meeting notes. Such records show where and how messages changed on their way to final form. To guard against hindsight bias, we anchor conclusions to dated artifacts and reconstruct decision points on an "as-of" basis: what was known at the time, what options existed, and who held the authority to act.

Interviews follow a two-pass method in order to reduce narrative convergence and hindsight bias. The first pass is narrative-led: we elicit each interviewee's own chronology and decision context — what they recall seeing, believing, deciding, and escalating, and why — without anchoring them to a documentary narrative.

The second pass is document-anchored: we return with dated artifacts and any gaps or contradictions our review has surfaced, in order to test recollections against the record. Material assertions are triangulated against independent sources wherever feasible, and contradictions are captured explicitly and used to drive targeted follow-up, whether through further record requests or additional interviews.

Taken together, this approach produces a disciplined, contestable evidence base from which the findings of our Independent Expert Review will ultimately be drawn.

Limitations

This Probative Inquiry Preliminary Report records some portion of the findings we have gained through our ongoing efforts.

It is intended to identify what the evidence gathered thus far supports, where that evidence complicates the established public narrative regarding the financial sector stress events of 2023, and which questions require further examination. Its assessments are therefore provisional. They should not be understood as the final findings of Starling's Probative Inquiry or to represent the conclusions of the Independent Expert Review that will follow.

Starling has reviewed a substantial body of public and nonpublic material and has interviewed senior Federal Reserve officials, current and former Board staff, Federal Reserve Bank personnel, former SVB directors and staff, and others with relevant knowledge. That evidentiary record is not yet complete. Starling's document review continues, including its examination of Confidential Supervisory Information and other contemporaneous records bearing upon the supervision of SVB.

Nor has Starling completed every stage of its interview process. Where appropriate, the Inquiry employs a two-pass methodology: an initial narrative-led discussion, followed by document-anchored questioning designed to test recollections against contemporaneous records and to examine inconsistencies among different accounts. For some interviewees, that second stage remains outstanding. Starling has also conducted interviews with almost all currently employed members of the FRBSF Dedicated Supervisory Team responsible for oversight of SVB during the relevant period. As there has not yet been sufficient time to test and integrate that testimony fully, it is not treated substantively in this Preliminary Report and will feature in a subsequent report.

The testimonial evidence discussed herein also varies in form. Some interviews were captured through reviewed transcripts; others through contemporaneous notes or interview reports prepared by Starling staff. Even reviewed interview transcripts preserve retrospective accounts offered several years after the events under examination. Such testimony may provide indispensable evidence concerning institutional practice, communications, judgment, and decision-making context, but recollection is not equivalent to a contemporaneous record. Material assertions will therefore continue to be tested against documents, other testimony, and objective data wherever feasible.

Similarly, the competing accounts presented in this Report should not be mistaken for established findings merely because they correct an imbalance in the existing public record. The Barr, GAO, and OIG postmortem accounts did not involve interviews with SVB's Independent Directors, while the accounts subsequently offered by those directors and by persons retained to assist SVB with risk remediation may reflect their own institutional predispositions. Those accounts are relevant evidence deserving consideration; they are not accepted uncritically.

Finally, Starling has yet to secure the cooperation of several former senior Board employees who have thus far declined Starling's invitation to participate in the Probative Inquiry. Starling's efforts to engage these individuals are documented in interim memos and briefings delivered to S&R in the course of the Inquiry.[75, 76] Starling continues to seek their participation while pursuing alternative sources of evidence to mitigate any resulting gaps in the record.

Our Probative Inquiry is directed principally toward the design and operation of supervisory and risk-governance mechanisms. It does not seek to determine the personal motives of named individuals, assign responsibility, or conduct performance evaluations. Nor does this Preliminary Report attempt to establish that any single alternative supervisory action would necessarily have prevented SVB's failure. The more tractable questions concern whether relevant risks were recognized, how they were interpreted and communicated, who possessed authority to act, and whether established supervisory processes reliably produced timely and proportionate responses.

Where the present record supports a conclusion, this Preliminary Report says so. Where it supports only an inference, raises a competing explanation, or exposes an evidentiary gap, the Report seeks to make that distinction clear. Subsequent stages of the Probative Inquiry will test these preliminary assessments, resolve contradictions where possible, and establish the completed evidentiary foundation upon which Starling's Independent Expert Review and Recommendations for Reform will ultimately rest.

[75] Starling Advisory, *2023 Stress Events Probative Inquiry Interim Briefing #2*, 19 June 2026.

[76] Starling Advisory, *Update Memo*, 16 July 2026.

Probative Inquiry Preliminary Report

The banking turmoil that started in March 2023 is the most significant system-wide banking stress since the Great Financial Crisis.

Basel Committee on Banking Supervision
Report on the 2023 Banking Turmoil (Oct 2023)

The Established Public Narrative[77]

On April 28th 2023, within weeks of the failure of Silicon Valley Bank ("SVB"), the then-Vice Chair for Supervision of the Federal Reserve Board ("FRB"), Michael S. Barr, published the results of an internal review into the supervision and regulation of SVB (the "Barr Report").[78]

That same day, the Government Accountability Office ("GAO") published a preliminary review into agency actions related to the March 2023 bank failures.[79] And, in September 2023, the Office of the Inspector General ("OIG") for the Federal Reserve Board published a related Material Loss Review.[80]

In October 2023, the international standard-setting community issued its own conclusions. The Basel Committee on Banking Supervision ("BCBS") published a "Report on the 2023 Banking Turmoil,"[81] and the Financial Stability Board ("FSB") issued its "2023 Bank Failures: Preliminary Lessons Learnt for Resolution."[82]

Collectively, these reports form the basis of a public narrative that many consider to be the established narrative; namely, that SVB's failure was a consequence of:

1. A "textbook case" of mismanagement at the bank, particularly with regard to interest rate and liquidity risks (financial risks);
2. Management and board failure to maintain effective enterprise risk governance and adequate risk oversight (non-financial risks);
3. Inability on the part of the Federal Reserve and other supervisors to identify the buildup of potentially ruinous risk at the bank in time to effect remedy;
4. Undue hesitancy on the part of supervisors to take sufficiently forceful action to compel the bank to remediate risk concerns once they had become evident;
5. Such hesitancy stemming from the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA"), which raised the thresholds for application of Enhanced Prudential Standards, and the Fed's overly deliberative approach to supervision in a "consensus-driven" work environment;
6. Uncertainty around senior-level policy priorities, and an excessive focus on due process driven by former Vice Chair for Supervision Randal K. Quarles, which fostered a culture of supervisory timidity; and
7. A bank run, unprecedented in its speed, "fueled" by social media, a highly networked and concentrated depositor base, and technology changes that facilitated coordinated deposit flight.

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[77] This refers to the causal narrative asserted by prior postmortem studies, critical elements of which lack adequate substantiation and, in light of the evidence reviewed in the course of compiling this Preliminary Report, appear unable to withstand scrutiny.

[78] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank* (Washington: Board of Governors, April 2023), https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm.

[79] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, GAO-23-106736 (Washington: Government Accountability Office, April 2023), https://www.gao.gov/assets/gao-23-106736.pdf.

[80] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank,* Evaluation Report (September 25 2023).

[81] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil* (Basel: Bank for International Settlements, October 2023), https://www.bis.org/bcbs/publ/d555.pdf.

[82] Financial Stability Board, *2023 Bank Failures: Preliminary Lessons Learnt for Resolution* (Basel: Financial Stability Board, October 10 2023), https://www.fsb.org/uploads/P101023.pdf.

Examining the Established Public Narrative

Our Probative Inquiry takes these studies as a starting point and seeks to test the reliability of the established public narrative they collectively assert. In so doing, we note at the outset that, while the Barr Report, GAO Report, and OIG Report rely on substantially overlapping factual records, they were prepared for different purposes and emphasize different causal mechanisms:

1. Barr: places primary causal weight on SVB's board and management failures, linking those to supervisory under-reaction in a policy environment that promoted less assertive supervision;
2. GAO: focuses most heavily on escalation — regulators identified concerns, but unclear escalation procedures, a lack of measurable criteria, and a Prompt Corrective Action (PCA) framework overly reliant on capital-based triggers failed to produce timely, forceful supervisory intervention;
3. OIG: emphasizes the immediate failure chain — concentrated uninsured deposits, rapid growth, duration risk, hedge removal, unrealized losses, and poor capital-raise communications — while finding that the Federal Reserve did not tailor its supervision of SVB to match its growth and increasing complexity, or to redress potential threats to the safety and soundness of the U.S. banking system and U.S. financial stability.

Despite these differences in causal-weighting, the authors of these reports are broadly consistent in pointing the finger of blame at the board and management of SVB in the first instance.

In his covering letter to the Barr Report, for example, past-VCS Michael Barr insists that "SVBFG's failure can be tied directly to the failure of the board of directors and senior management," who "failed to manage their risks."[83] The letter further asserts that the board of SVB "failed to oversee senior leadership and hold them accountable."[84]

The OIG Report points to "weaknesses in corporate governance and risk management,"[85] asserting that "SVB's management and board of directors failed to effectively manage SVB's developing and escalating risks."[86] Moreover, while the board "failed to hold the bank's leadership accountable for appropriate risk management," those executives, in turn, "emphasized growth and failed to implement controls."[87]

"SVB failed due to ineffective risk management,"[88] the GAO asserts. Because the board "did not provide effective oversight" and "did not hold management accountable" for inattention to risk, the GAO concludes that "the bank's management and board performance needed improvement."[89]

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[83] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 2.
[84] Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 1.
[85] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 11.
[86] Ibid., 13.
[87] Ibid., 11.
[88] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 14.
[89] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 21.

The BCBS report highlights the macro-context within which to consider these failures: "The banking turmoil that started in March 2023 is the most significant system-wide banking stress since the Great Financial Crisis (GFC) in terms of scale and scope." The events "triggered a broader crisis of confidence in the resilience of banks, banking systems and financial markets across multiple jurisdictions."[90]

At SVB, the BCBS study emphasizes "fundamental shortcomings in basic risk management," "an excessive focus on growth and short-term profitability … at the expense of appropriate risk management," "a poor risk culture, as well as ineffective senior management and board oversight," and "a failure to adequately respond to supervisory feedback and recommendations."[91] Among other factors, this left SVB vulnerable to "highly correlated withdrawals from SVBFG's concentrated network of VC investors and technology firms who, fuelled by social media, withdrew uninsured deposits in a coordinated manner at an unprecedented rate."[92]

For its part, the FSB contends that, "unrealised losses from concentrated bond exposures and liquidity and maturity mismatches during a time of significant monetary tightening, combined with a large proportion of concentrated and uninsured deposits and social media influence, led to the deposit run on SVB."[93] The latter claim receives further attention: "The role of social media in the SVB depositor run illustrates the dynamics that can arise. Social media posts advised depositors to withdraw funds from SVB, and many uninsured depositors did so all at once."[94] Supervisory policy must adapt to such technology-mediated new realities, the FSB asserts.

Since 2023, such findings have been oft-cited. The consistent articulation of these findings, in turn, has led some to insist that there is little reason, today, for us to re-examine the financial sector stress events of 2023.

This report challenges such insistence.

[90] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*, 1.
[91] Ibid., 1.
[92] Ibid., 6.
[93] Financial Stability Board, *2023 Bank Failures: Preliminary Lessons Learnt for Resolution*, 18.
[94] Ibid., 25.

The Barr Report

The Barr Report was conceived amid crisis. On March 13th, only three days after the closure of SVB — and while other institutions were failing or under acute stress — the Federal Reserve announced that Vice Chair for Supervision Michael Barr would lead a review of SVB's failure.[95] The review was expected to examine the regulations applicable to firms such as SVB, the supervisory regime under which the firm had operated, and whether supervisors possessed sufficient tools to identify and address the weaknesses that had emerged.

The Federal Reserve committed to publishing the results by May 1st 2023, and the Barr Report was issued on April 28th, less than seven weeks after the review began.

Directing the staff-led effort was **[Board Staff 14]**, chosen for his deep supervisory experience — including five years leading supervision at the Federal Reserve Bank of New York — and a history of managing complex, system-wide initiatives. His subsequent secondment to the Board, moreover, had kept him at arm's length from day-to-day supervision of SVB. [Board Staff 14] thus offered both the institutional expertise and independence needed to lead the review.

During Starling's interview with [Board Staff 14], he recalls learning of SVB's failure "just like everyone else did," from the public announcement of the decision to exercise the Systemic Risk Exception. Within days, he had been asked to lead the review captured by the Barr Report. His response reflected the institutional mood: "When something comes up, everyone is all hands on deck, and you do what you can to help." Once he accepted the assignment, he recalls, "it was full steam ahead."[96]

Working with [Board Staff 14] was **[Board Staff 2]**, a thirty-year Federal Reserve veteran with experience spanning community, regional, large-bank, and systemically important financial-institution supervision. In Starling's interview with [Board Staff 2], he explained that he "ran the review of the supervision of SVB," while [Board Staff 14] had responsibility for the overall Report.[97]

The broader review team, both men explained, was organized by subject-matter expertise and "risk stripe," drawing specialists in liquidity, interest-rate risk, credit risk, governance, policy, and law from across the Federal Reserve System. A smaller synthesis group — centered on [Board Staff 14], [Board Staff 2], and supported by several members of the Fed's Policy and Legal staff, overseen by Vice Chair Barr — worked to turn those specialist contributions into a coherent public account.

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[95] Board of Governors of the Federal Reserve System, "Federal Reserve Board Announces That Vice Chair for Supervision Michael S. Barr Is Leading a Review of the Supervision and Regulation of Silicon Valley Bank, in Light of Its Failure," press release, March 13 2023, https://www.federalreserve.gov/newsevents/pressreleases/bcreg20230313a.htm.

[96] Appendix A-11, [Board Staff 14], 30 April 2026.

[97] Appendix A-2, [Board Staff 2], 5 May 2026.

The production effort was intensive. [Board Staff 14] recalls "morning meetings every day for six weeks, lots of phone calls, lots of checking in." The subject-matter teams were instructed to determine what had happened, from the perspective of their respective disciplines, and were given access to the relevant records. [Board Staff 14] and [Board Staff 2] then worked to identify the through-lines connecting their findings.

That was no small editorial undertaking. [Board Staff 14] estimates that the teams generated two or three times the volume of raw material that ultimately appeared in the roughly 100-page public Report. "A lot of what [Board Staff 2] and I did," he explains, "was take this vast amount of stuff and funnel it into something that was hopefully manageable and useful." [Board Staff 2]'s supervision team alone produced what he remembers to be approximately 200 pages of draft material. Much of it ultimately "hit the cutting room floor" as the team distinguished details essential to explaining SVB's failure from those unlikely to illuminate it for a public audience.

Strengths of the exercise

The Report's principal staff-authors describe an effort marked by diligence, technical depth, and considerable editorial independence. [Board Staff 2] recalls working from approximately 5:00 a.m. until midnight for several weeks. [Board Staff 14] remembers Board lawyers reviewing successive versions at 3:00 in the morning, with "people just grinding to get every bit done and checked."

The intensity of that effort was matched by the quality of the people involved. [Board Staff 14] describes the Federal Reserve staff as being "at their best in the moment of most uncertainty." The "deepness" and "breadth" of their subject-matter expertise, he says, were "stunning": "I would put that group, from a technical sense, up against anyone," [Board Staff 14] said.

Both [Board Staff 14] and [Board Staff 2] emphasize that the review team was permitted to reach and publish conclusions uncomfortable for the Federal Reserve itself. [Board Staff 14] recalls advising at the outset that, if he were to undertake the assignment, "I have to say what I think." He reports that this condition was honored.

[Board Staff 2] describes [Board Staff 14] setting the same expectation for the wider group: "Listen, this is our report. If we want something in there, it's going to stay in there." In [Board Staff 2]'s telling, that message was directed not only to the working team, but also to the General Counsel, the head of Supervision and Regulation, Vice Chair Barr, and others. It established that material would not be removed merely because it was uncomfortable for the institution to place it into the public record.

The result was an unusually candid act of institutional self-examination. The Barr Report did not limit blame to the failed bank. It acknowledged serious shortcomings in Federal Reserve supervision, including failures to appreciate the extent of SVB's vulnerabilities, delays in escalating identified concerns, and institutional practices that discouraged sufficiently timely and forceful action. The Federal Reserve also released a substantial body of material ordinarily treated as Confidential Supervisory Information, providing the public with uncommon visibility into the conduct of supervision.

These are significant achievements, and the limitations discussed herein should not obscure them. The Barr Report was a serious, detailed, and unusually transparent effort, undertaken by experienced public servants, working under extraordinary time pressure and intense public scrutiny.

The constraints of a compressed inquiry

Yet the very conditions that make the Barr Report an impressive study demand that we exercise due care before unquestioningly accepting its conclusions. [Board Staff 2] offers a vivid account of the production timetable:

“You get about a week to figure out what happened, you get a week to write it, and then you get four weeks to edit it.” The team continued learning throughout those four weeks, but the timetable meant, as [Board Staff 2] acknowledges, that “you need to draw your conclusions early.” Asked whether the process might fairly be characterized as “ready, fire, aim,” he replied: “Yeah, a little bit. We’re not going to be way off target when we fire, but we do a lot of refining on the backend.”

That iterative process undoubtedly improved the final product. [Board Staff 2] credits Board Legal, Congressional Affairs, communications personnel, and other reviewers with supplying valuable questions and clarifications. [Board Staff 14] describes the Report as a broad Federal Reserve consensus document that was read and commented upon by dozens of Federal Reserve Board supervisory and Legal staff, under the direction of the Vice Chair for Supervision. But editing and refinement are not the same as beginning again from first principles. Once the principal causal narrative had been established, which appears to have been early in the production process, the remaining weeks were devoted primarily to refining and communicating that narrative.

This creates a risk familiar to any inquiry conducted under intense time pressure: an early organizing theory may become the frame through which later evidence is selected, interpreted, and offered. That does not in itself indicate confirmation bias. It does, however, create conditions in which confirmation bias may arise.

[Board Staff 14]’s own account provides an important counterweight: “This wasn’t a hypothesis testing exercise,” he explains. “I knew nothing about the firm going in.” He and the other reviewers read “document after document” and formed their views as they proceeded. Nevertheless, he also recalls that there was no substantive debate over the principal finding: “The primary conclusion was that the firm failed to manage its own risks, and there was no debate about that being the fundamental driver of what happened.”

[Board Staff 2] brought to the exercise precisely the seasoned examiner’s judgment that the review required. He explains that he joined [Board Staff 14] for many of the staff interviews because, in his own self-description, “I’m an old cranky examiner.” That experience was an asset: expert pattern recognition allows an examiner to find signal amid an overwhelming volume of information. But pattern recognition can also become pattern completion. An experienced examiner’s instinct to understand a bank failure first as the consequence of unsafe positions and unsound practices may shape which questions are pursued, which facts are treated as causal, and which competing explanations appear less salient out of hand.

Again, this is not to suggest that [Board Staff 2] approached the work in bad faith or consciously sought evidence supporting a predetermined conclusion. Nothing in our conversations with him or [Board Staff 14] would support such a charge. Rather, it is to recognize that the perspective of the "old cranky examiner" was both a source of strength and a potential interpretive lens through which the record was viewed, analyzed, and presented.

> **Pattern recognition can also become pattern completion.**

A substantial but one-sided testimonial record

The review team conducted interviews with approximately 35 people from across the Federal Reserve System. Those discussions generated 43 sets of interview notes, which Starling has yet to analyze in full. [Board Staff 2] indicates that he and [Board Staff 14] conducted most of the interviews with senior staff together. They spoke with current and former members of the SVB supervisory team; personnel involved in liquidity, interest-rate-risk, governance, audit, and other examinations; members of the Federal Reserve's Risk function; and senior leaders in San Francisco and at the Board.

This was a substantial undertaking within the available time. But the witness pool was exclusively internal to the Federal Reserve. The review team did not interview SVB's executives or directors. It did not issue document requests to them. The same appears to be true of the OIG and GAO postmortem studies.

When asked whether the Barr review team had spoken with SVB executives or directors, [Board Staff 14]'s answer was unequivocal: "We did not." He explained that the record reviewed by his team included not only supervisory documents, but also internal firm materials that had been obtained in the ordinary course of supervision, including records and summaries concerning matters presented to the board of SVB. As such, he confirmed: "We did not talk to the management or the board of the firm."

In a separate discussion outside the recorded interview, [Board Staff 14] explained that the review team did not believe it needed additional information from SVB's management or directors. In his view, the records already held by the Federal Reserve provided his review team with all the information necessary to reach the Barr Report's conclusions regarding SVB's failure to manage its risks.

That explanation, however, presents a difficult tension. If the evidence already in the Federal Reserve's possession was sufficient to make SVB's risk-management failure unmistakable after SVB had failed, then the essential information was also available to Federal Reserve supervisors *before* SVB's failure.

[Board Staff 14] describes the evidence as "crystal clear" and the firm's risk-management failure as "the prime cause of what happened." If so, the central question becomes less whether Federal Reserve supervisors possessed the information necessary to identify SVB's vulnerability, than why it is that they failed to synthesize that information, to recognize the firm's deepening vulnerability, and to force timely remediation well before the bank failed.

The distinction between anticipating the precise trigger and recognizing underlying vulnerability is important. Supervisors may reasonably have struggled to anticipate the speed, scale, and immediate catalyst of the run. But difficulty predicting the proximate trigger is not the same as an inability to recognize that SVB had become acutely vulnerable to a spike in interest rates, or some other potentially destabilizing event.

[Board Staff 2]'s reflections point toward this distinction. He describes supervisors as having focused on weaknesses in the processes by which SVB measured liquidity and interest-rate risk, without directly confronting the risk positions themselves: "We could see that the process had flaws, and so we cited the process. We did not cite the position." That observation suggests that the raw facts may have been visible, while their combined prudential significance was not recognized.

The absence of interviews with SVB's management and directors therefore matters for more than procedural completeness. Such interviews might have supplied relevant factual information, contested particular characterizations, or revealed additional evidence about governance and remediation. They might also have helped the Barr, GAO, and OIG review teams understand why supervisors and the supervised firm interpreted the same underlying information differently before and after the failure made its significance appear obvious.

The character of the interview evidence

A further methodological limitation of the Barr Report's production arises from the manner in which review team interviews were recorded. The 43 interview records are not verbatim transcripts. They are summaries prepared by Board Legal staff who were involved in the discussions in at least a note-taking capacity.

There is no reason to presume that those summaries were inaccurately or improperly prepared. Legal participation may have improved discipline, clarity, and consistency. Nevertheless, a summary is an interpretive record. It necessarily reflects judgments about what to capture, what to condense, what to omit, how to characterize uncertainty, and which statements warrant emphasis.

The intervention of a legal note-taker, therefore, introduces an additional layer between the words of the interviewee and the narrative eventually presented in the Barr Report. It also creates a possible channel for a distinctly legalistic bias: a tendency to privilege documentary defensibility, chronology, formal authority, and supportable attribution over ambiguity, institutional culture, tacit understanding, and the informal dynamics through which supervisory judgments are actually reached.

This does not establish that the interview notes or the Barr Report were distorted. But where conclusions were formed rapidly, interviews were limited to Federal Reserve personnel, and the testimonial record consists of lawyer-prepared summaries rather than full transcripts, the possibility of cumulative interpretive bias is real. The Barr Report's underlying interview notes must therefore be read alongside contemporaneous documents, draft work products, and other evidence rather than treated as neutral substitutes for the conversations themselves.

How the Barr Report's findings should be read

The Barr Report articulates four principal findings: (1) that SVB's board and management failed to manage the firm's risks; (2) that supervisors did not fully appreciate the bank's vulnerabilities; (3) that supervisors did not act with sufficient force or speed once problems were identified; and (4) that changes in the regulatory framework, caused by the enactment of EGRRCPA, and shifts in supervisory policy priorities under then-Vice Chair for Supervision Quarles, which emphasized due process, "impeded effective supervision."[98]

[Board Staff 14] is emphatic that these findings were intended to appear in descending order of causal significance. Asked whether they appeared in order of importance, he answered: "Absolutely." He also acknowledged that this hierarchy might have been made clearer: "Maybe it should have been explicit in the report."

[Board Staff 2] goes further. With hindsight, he would have stopped after the first two findings: "The bank screwed up, we missed it, end of story." Although he continues to stand by the substance of the Barr Report, [Board Staff 2] believes the fourth finding generated political and institutional "noise" that distracted from the Report's key propositions. "Honestly," he says, "I would've stopped at Key Takeaway 2."

That formulation is refreshingly candid, but perhaps too neat. The first two findings cannot be treated as wholly independent propositions. If, as [Board Staff 14] argues, the records already held by the Federal Reserve made SVB's failure to manage its risks "crystal clear," then the proposition that "the bank screwed up" immediately raises the question of why the Federal Reserve "missed it."

The first finding describes the condition of SVB. The second demands an explanation of the supervisory system that possessed the relevant information but failed to convert it into effective action.

The methodology of the Barr review may have encouraged the first proposition to settle early. The review was conducted through records gathered in the normal course of supervision and interpreted primarily by supervisors and other Federal Reserve personnel. It did not include interviews with those at SVB who might have contested or contextualized the emerging account. And interview evidence used to test that account was summarized by Federal Reserve lawyers, rather than preserved through verbatim transcripts.

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[98] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 1.

These circumstances do not invalidate the findings of the Barr Report. They do, however, counsel against treating its causal narrative as settled history and help to explain why further inquiry is warranted.

[Board Staff 14] himself welcomes that effort. He describes Starling's Probative Inquiry as "a great effort" that "should absolutely be done," and he endorses "a one-step-back reassessment." In that same spirit, the Barr Report is best treated as an indispensable starting point: a serious and unusually candid internal postmortem whose strengths give its conclusions weight, and whose constraints make continued examination necessary.

Re-Examining the Established Public Narrative

In his opening letter accompanying the Barr Report, then-Vice Chair for Supervision Barr identifies four key causal factors that lay behind the failure of SVB:

1. SVB's board of directors and management failed to manage their risks;
2. Supervisors did not fully appreciate the bank's vulnerabilities as SVB grew in size and complexity;
3. When supervisors did identify vulnerabilities, they did not take sufficient steps to ensure that SVB fixed those problems with sufficient alacrity; and
4. The 2018 Economic Growth, Regulatory Relief, and Consumer Protection Act, and a shift in top Fed policymakers' guidance to supervisors, led to reduced supervisory standards, increased complexity in supervisory practices, and promoted a less assertive supervisory approach.[99]

The Barr Report was produced by highly experienced senior Fed staff, coordinating work among a number of specialists from across the Fed system, who together compiled an impressively detailed study in what the Report itself calls "a compressed time frame." With admirable modesty, the Report expressly allows that "further work over a longer period could draw additional or different conclusions."[100] In his covering letter to the Report, then-Vice Chair for Supervision Barr acknowledged that "others will have their own perspectives on this episode," and indicated that he would "welcome external reviews of SVB's failure."[101]

In that spirit, Starling has sought to study the various findings asserted within the Barr Report, as they are situated within the established public narrative outlined earlier in this present report, and to test those against the public record, internal Fed records, and learnings achieved through interviews with individuals uniquely well-placed to help us to draw constructive lessons from these events.

[99] Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 1.
[100] Board of Governors of the Federal Reserve System, *Preamble, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, vii.
[101] Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4.

1. A "textbook case" of mismanagement

"Silicon Valley Bank (SVB) failed because of a textbook case of mismanagement by the bank," then-Vice Chair for Supervision Michael Barr's opening letter accompanying the Barr Report begins. "Its senior leadership failed to manage basic interest rate and liquidity risk. Its board of directors failed to oversee senior leadership and hold them accountable."[102]

First among the Barr Report's "key takeaways" is the observation that SVB suffered from "foundational and widespread managerial weaknesses." For instance, "The full board of directors did not receive adequate information from management about risks at Silicon Valley Bank and did not hold management accountable for effectively managing the firm's risks," the Barr Report asserts.[103]

Such assertions have been oft-repeated in other postmortem accounts. Drafted in four weeks, between March 21st and April 28th 2023, the GAO's postmortem review indicates a purposeful focus "on supervisory activities related to the banks' liquidity and risk management."[104] Under the rubric, "Weak Liquidity and Risk Management Contributed to Bank Failures," the GAO reiterates the Fed's findings:

> *According to Federal Reserve Board and FRBSF staff and their examination documents, SVB failed due to ineffective risk management, including the management of its deposits and assets. FRBSF documents stated that SVB's risk-management framework was not commensurate with the bank's size and complexity.*[105]

In June 2022, the GAO reminds, the Federal Reserve Bank of San Francisco ("FRBSF") downgraded SVB's CAMELS composite rating from a 2 to a 3, its management component rating from a 2 to a 3, and its liquidity component rating from a 1 to a 2. The GAO reiterates the FRBSF's reasoning for the downgrade:

> *Specifically, FRBSF examiners found that the bank's management and board performance needed improvement and were less than satisfactory. For example, the board did not provide effective oversight of implementation of the risk-management framework and execution of the bank's transition into the Large Financial Institution category. The board also did not hold management accountable for the root causes contributing to weaknesses in liquidity risk management and other risks.*[106]

It should be emphasized here that these are not independent *findings*. These are re-statements of assertions put forward by the Federal Reserve Board and the FRBSF.

In its 2023 Material Loss Review, the Office of the Inspector General ("OIG") of the Federal Reserve Board argued that SVB "exhibited weaknesses in corporate governance and risk management."[107] More

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[102] Ibid., 1.
[103] Board of Governors of the Federal Reserve System, *Key Takeaways, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, i.
[104] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 3.
[105] Ibid., 14.
[106] Ibid., 21.
[107] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 11.

specifically, the OIG found that “SVB exhibited several corporate governance weaknesses that created an unstable foundation to support the bank’s rapid growth and escalating risk profile. These corporate governance weaknesses included ineffective board of directors’ oversight and significant weaknesses in the bank’s lines of defense.” In sum, the OIG argues, “Management’s ability to mitigate risk did not keep pace with the bank’s rapid growth, and the board of directors failed to hold management accountable for implementing effective risk-management programs and controls commensurate with the bank’s increasing size and risk profile.”[108]

And the OIG review seeks to illustrate the case: “For example, examiners noted that the bank’s incentive compensation program and executive officer performance evaluations did not meaningfully consider the bank’s risk-management deficiencies. In other words, risk-management weaknesses or deficiencies would not detract from an executive’s incentive compensation.”[109]

It should be noted, however, that here again, the OIG appears to have relied on findings presented by FRBSF bank *examiners*, rather than putting forward findings reached independently.

It is further notable that, despite the force and repetition with which findings regarding the board and management of SVB have been asserted, in the course of our Probative Inquiry, we have learned that the authors of the Barr, GAO, and OIG postmortem studies never sought to test their conclusions through discussion with the board of SVB, nor did the authors of these government studies issue any request for information to the board in the course of conducting their postmortem inquiries.

> **The authors of the Barr, GAO, and OIG postmortem studies never sought to test their conclusions through discussion with the board of SVB.**

Although the OIG and GAO conducted independent reviews within their respective statutory mandates, their conclusions regarding the conduct of SVB’s board and management were derived principally from supervisory findings already developed by the Federal Reserve System, rather than from independent inquiry. This necessarily limits the evidentiary basis upon which conclusions regarding board conduct were reached, and the established public narrative that these conclusions support therefore warrants a closer examination.

[108] Ibid., 13.
[109] Ibid., 14.

Interview with Mary Miller

Against that backdrop, Starling sought to obtain the perspectives of those who had themselves participated in risk governance at SVB, but whose views had not been sought during the preparation of the principal postmortem reviews. On March 17th 2026, Starling conducted an interview with **Mary Miller**, former Chair of the Audit Committee of SVB. The meeting took place at Ms. Miller's request, conveyed through counsel, after she expressed a desire to contribute her perspective to Starling's independent Probative Inquiry.[110]

Our discussion with Miller was not recorded so, unlike the majority of interviews conducted by Starling in the course of its Probative Inquiry, we do not possess a verbatim transcript reviewed and approved by her. This account was drawn from contemporaneous notes prepared by Starling personnel, and the quotations offered should be understood as language recorded in those notes.

Before joining SVB's board in 2015, Miller had managed fixed-income, bond, money-market, international, and high-yield portfolios at T. Rowe Price. She later spent five years at the U.S. Treasury, where she was responsible for federal debt management and served on domestic-finance matters under Secretary Timothy Geithner and Deputy Secretary Jacob Lew.

At SVB, Miller served as an independent director and chaired the Audit Committee.

Miller sought to speak with Starling because she was "shocked" by the Barr Report. She acknowledged that much of it was accurate, but regarded the account as profoundly one-sided. In her view, the Barr Report describes in detail what supervisors found, what they communicated to SVB, and what they required the bank to do; it says little about how management and the board responded.

That omission is central to Miller's criticism. The Barr, GAO, and OIG reports portray a board that failed to oversee management, failed to demand adequate risk controls, and failed to hold management accountable for remediation. Miller does not deny that SVB received serious supervisory criticism. She instead argues that the postmortems omit the extensive — and, in her telling, increasingly urgent — efforts by the board and management to address that criticism.

For instance, Miller reported that SVB received 54 MRAs or MRIAs between 2020 and 2022, of which 40 were closed. As SVB crossed regulatory thresholds — from the Fed's Regional Banking Organization ("RBO") portfolio to the Large & Foreign Banking Organization ("LFBO") portfolio — she recalled a distinct "cliff effect": supervisory demands multiplied rapidly, many involving expectations that had not applied to SVB under its earlier supervisory regime.

Most of the early supervisory findings concerned technology and operational matters, including BSA/AML, cyber risk, and identity-access management. Their remediation consumed substantial board attention. Miller recalled a genuine sense of accomplishment when findings were closed.

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[110] Appendix A-8, Mary Miller, 17 March 2026.

The demands eventually became so extensive that the Audit Committee risked being diverted from its core mandate, Miller contends. In response, the board established a separate Technology Committee, led by director Dick Daniels,[111] to assume greater responsibility for IT oversight.

Explicit supervisory findings concerning liquidity risk arrived later. Miller recalled two MRIAs and four MRAs addressing that subject in fall 2021. She maintained that SVB submitted everything supervisors had requested in response by the deadline. Her question was direct: “Why weren’t those response plans mentioned in the Barr Report?”

Miller herself was assigned responsibility for an Internal Audit MRIA issued in 2022. She reported that SVB developed 46 areas of focus and approximately 100 associated action plans, all of which were shared with Fed bank examiners. Moreover, SVB engaged consultants to assist with other findings concerning governance and risk management, recruited senior risk professionals, and added approximately 2,000 employees during 2022, many in risk management and internal audit.

“Supervisors repeatedly responded: ‘We can’t be prescriptive — you have to figure this out.’

These measures do not, by themselves, establish that SVB’s response was adequate, of course. Activity is not the same as effective remediation, and the number of plans, personnel, meetings, and advisers does not reveal whether SVB addressed the risks that mattered most. But Miller’s account is difficult to reconcile with a simple narrative of an inattentive board that treated supervisory concerns with indifference. At minimum, it identifies a substantial body of evidence that must be examined before reaching conclusions about the board’s engagement and accountability.

Miller’s account also complicates the assertion that the board failed to ensure that supervisory concerns were resolved promptly. She indicated that she herself met quarterly with the San Francisco Fed and sought specific guidance on how SVB might satisfy the Internal Audit MRIA. In Miller’s telling, supervisors repeatedly responded: “We can’t be prescriptive — you have to figure this out.”

When Miller presented SVB’s proposed course of action to examiners, she recalled being told: “It looks like you’re on the right course.” Yet the process remained open-ended. SVB was expected to continue working until supervisors determined that the finding could be closed, without being given clear, measurable criteria by which such completion would be assessed.

Miller likened the resulting dynamic to a game of “cat and mouse,” with the bank repeatedly asking: “Is this enough? Is this enough?” She did not allege that supervisors had disregarded their prescribed processes. Her criticism was that those processes produced an inefficient and debilitating communications vacuum. SVB understood that supervisors regarded its response as incomplete but struggled to obtain concrete guidance on what would constitute an acceptable result.

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[111] Silicon Valley Bank, “SVB Financial Group Appoints Richard Daniels to Its Board of Directors,” press release, PR Newswire, October 22 2020, https://www.prnewswire.com/news-releases/svb-financial-group-appoints-richard-daniels-to-its-board-of-directors-301158367.html.

The same pattern appeared elsewhere. Miller reported that the Compensation Committee received supervisory directives, worked to respond, and did not receive confirmation that its work was complete. Miller offered a similar example involving SVB's resolution plan. The bank engaged an experienced resolution planning specialist and submitted a resolution plan to the bank's regulators in December 2022. Miller received no subsequent feedback. She allowed that management might have received communications that were not relayed to her, but from her perspective as a director, the submission disappeared into a "black hole."

The postmortems emphasize the existence and persistence of open findings as evidence that management and the board failed to remediate. Miller's account raises a different possibility: that some findings remained open within an iterative process through which supervisors repeatedly sought further work but did not define the conditions for closure. Determining which account is more accurate requires examination of the underlying submissions, the Federal Reserve's responses, and evidence regarding implementation — not simply a count of findings that remained open when SVB failed.

Miller was particularly troubled by the Confidential Supervisory Information released with the Barr Report. While serving as a director, she had understood that such material would remain confidential. Upon reviewing the released record, she discovered extensive internal Federal Reserve discussion of SVB's interest-rate risk. "Why weren't those concerns shared with me during quarterly meetings?" she asked.

Miller recalled supervisors describing the examination relationship as a "safe house" in which concerns could be discussed candidly. Yet the degree of concern visible in the Federal Reserve's internal record was not, in her recollection, communicated to the SVB board with comparable force. She believes the Federal Reserve was itself late to appreciate the potential impact of a 500-basis-point change in interest rates, with the risk gaining urgency only during the latter half of 2022.

She also emphasized the informational advantage enjoyed by the supervisor. The Federal Reserve could compare SVB with institutions across the banking system. The board could see SVB's position, but it could not independently see whether that position had become unusual relative to peers. Miller believes that, had supervisors clearly communicated that SVB was an outlier, the bank would have acted.

It is not our assertion that this eliminates the board's independent responsibility to understand the risks inherent in SVB's business model and balance sheet — directors cannot rely upon supervisors to perform the board's risk-governance function. But the claim that the board failed to appreciate SVB's vulnerability must be considered alongside the information supervisors possessed, the information they communicated, and the urgency with which they communicated it.

The apparent disconnect extended beyond interest-rate risk. Miller did not recall being told that Federal Reserve supervisors had raised concerns about "foundational weaknesses" with SVB's auditor, KPMG, during meetings in early 2022. These meetings were not discussed in any of the principal postmortems but were revealed by a September 2025 Senate Permanent Subcommittee on Investigations Minority Staff Report into KPMG's audit work for all three banks that failed in Spring 2023.[112]

Miller said neither KPMG nor supervisors brought those conversations to her attention. SVB understood that it needed to satisfy enhanced prudential expectations, but Miller recalled no urgent warning that the bank faced imminent danger. The bank remained comparatively well-rated when it entered receivership. In her words, it was a "dog that didn't bark" situation.

Miller experienced SVB's transition into large-bank supervision as awkward and unclear. When SVB became a Large Financial Institution ("LFI") in 2021, after remaining above $100 billion in assets for four consecutive quarters, she sensed a "new sheriff in town." Washington would play a larger role, but she did not see clarity as to what that meant in practice.

The San Francisco Fed and California regulators remained in the foreground, while unfamiliar personnel from Washington appeared in the background. It was not clear whether there was a new supervisory playbook, which officials were responsible for applying it, or with whom SVB was expected to develop relationships. Meetings continued to be arranged through San Francisco, with personnel from Washington joining episodically.

Miller's account also provides context for the assertion that the board allowed SVB's growth to outrun its governance and risk-management capabilities. She reported that the bank anticipated the challenges associated with becoming a large institution. SVB engaged Sullivan & Cromwell to advise on its LFI obligations, commissioned work from McKinsey, and sought assistance from experienced advisers, including former Federal Reserve Governor Roger Ferguson and former Citi CFO John Gerspach. The board believed it was assembling the expertise required to govern a larger and more complex bank.

Management also sought to moderate balance-sheet growth, according to Miller. SVB reportedly directed approximately $150 billion of customer funds into off-balance-sheet money-market products because it did not want deposits to increase still more rapidly and trigger additional regulatory thresholds. It restrained lending because management did not believe that the influx of funds could be deployed prudently into new loans, investing instead in securities that it regarded as high quality.

With hindsight, those decisions contributed to the balance-sheet structure that made SVB vulnerable to rising rates and deposit flight. The fact that management intended to act conservatively does not establish that it managed the resulting risks effectively. It does, however, complicate the characterization of SVB as pursuing growth without regard to prudence. Miller describes management and the board as recognizing the problem of rapid growth, taking steps intended to control it, and

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112 U.S. Senate Permanent Subcommittee on Investigations, *"This Industry Is a Joke": How KPMG's Unqualified Audits of Silicon Valley Bank, Signature Bank, and First Republic Bank Allowed Troubled Banks to Hide Their Failures in Plain Sight*, minority staff report prepared by Senator Richard Blumenthal (U.S. Senate Committee on Homeland Security and Governmental Affairs, September 17, 2025), https://www.hsgac.senate.gov/wp-content/uploads/2025_09_17-Regional-Bank-Failures-Report-1.pdf.

failing to understand how those steps generated a different — and ultimately severe — combination of risks.

Miller does not believe that SVB's failure was inevitable. She regarded the bank as solvent, while acknowledging that solvency is ultimately a question for forensic analysis. In her account, structural and operational rigidities became decisive once the run began: Federal Home Loan Bank access was curtailed, collateral could not be moved quickly enough to the Discount Window, relevant personnel at the Federal Reserve responsible for the Discount Window could not be reached after East Coast business hours, and the weekend intervened.

She emphasized the unprecedented speed of the run. Depositors in an earlier era had to stand in line; SVB experienced outflows reportedly approaching $1 million per second. Miller argues that the system needed a circuit breaker — a mechanism that would allow SVB and its supervisors to pause, assess the situation, mobilize collateral, and "get to the weekend."

This account does not answer whether the board and management should have left SVB so vulnerable to a run. It does suggest that the ultimate failure involved more than the quality of the bank's internal governance. In Miller's telling, the outcome reflected an interaction among balance-sheet vulnerability, an extraordinarily fast run, supervisory and market signals, and an institutional response mechanism unable to operate at the speed of the crisis.

Miller's account does not establish that the conclusions of the Barr, GAO, and OIG reports are mistaken. Nor does it demonstrate that SVB's board and management acted with sufficient speed or effectiveness. It does, however, establish that the principal postmortem studies reached forceful conclusions about the board without seeking its evidence, testing its explanations, or reviewing the full record of its claimed remediation efforts.

During her interview, Miller identified specific materials capable of being tested: board and committee records, MRA and MRIA response plans, evidence relating to closed findings, consulting engagements, risk-management hiring, communications with supervisors, compensation materials, the resolution-plan submission, KPMG communications, and the Federal Reserve's internal discussion of interest-rate and liquidity risk.

It also made clear that the perspective of a single director — recounted through contemporaneous interview notes rather than a reviewed transcript — could not provide an adequate evidentiary counterweight by itself.

For that reason, during the March 17th meeting, Starling asked Miller's counsel to explore whether Miller and the other former Independent Directors of SVB would be willing to provide Starling with a fuller written account. The purpose of that request was to place into the record perspectives that had never been sought by past postmortem authors, so that competing accounts could be tested against one another and against the contemporaneous documentary record.

SVB Independent Directors' Statement

On April 20th 2026, the former Independent Directors of SVB responded collectively to Starling's request for a fuller written account of the events Miller had described.[113] The resulting "Directors' Statement" (the "Statement") offers a retrospective account prepared by individuals whose own conduct has been criticized and must be weighed accordingly. But it provides something the Barr Report — and, by extension, the GAO and OIG reviews that drew heavily upon the same supervisory record — did not: the perspective of the Directors themselves, accompanied by specific dates, figures, actions, and references to contemporaneous communications against which their account can be tested.

The Directors opened with a direct challenge to the completeness of the established public narrative. They characterized the Barr Report as a "one-sided and selective recounting of the supervisory history of Silicon Valley Bank," prepared "without a single conversation with or request for information from any of the Independent Directors of SVB."

They objected in particular that the Federal Reserve released supervisory correspondence describing its criticisms of SVB, but made no mention of the submissions SVB made in response. Nor did it share any of the records reflecting the SVB board's own governance and risk-management activities. The result, they argued, was a public record that documented supervisory demands without documenting what the bank did in response to them.

This identifies a significant evidentiary limitation in findings — repeated across the Barr, GAO and OIG reports — that SVB management failed to remediate known deficiencies, and that the board treated supervisory findings as little more than a compliance exercise. Those conclusions cannot be assessed fully without examining both the supervisors' criticisms and the actions taken in response.

The Directors' Statement first addressed the Barr Report's characterization of the SVB board as lacking sufficient banking and large-financial-institution experience. The Directors called that "sweeping characterization" incorrect, pointing to members with experience at Bank of America, Capital One, and JPMorgan, as well as service on the board of the Royal Bank of Canada, and to collective experience spanning banking, auditing, accounting, asset management, investment banking, financial technology, and government.

More important than the Directors' résumés, however, was their account of what they did as SVB approached the threshold for supervision as a large financial institution.

[113] Addendum Item 4 — SVB Directors' Statement.

According to the Statement, the board and management began preparing for that transition in 2020, before SVB crossed the $100 billion threshold. LFI-readiness work appeared regularly in board and committee materials throughout 2021 and 2022, and the Directors received training concerning heightened supervisory expectations and large-bank governance.

SVB retained McKinsey and Sullivan & Cromwell and later engaged former Federal Reserve Vice Chair Roger Ferguson and former Citi Chief Financial Officer John Gerspach as special advisers. Formal meetings of the board and its principal committees increased from 69 in 2020 to 86 in 2022.

Staffing increased as well. SVB grew from 3,564 employees at the end of 2019 to 8,553 at the end of 2022, including approximately 2,000 new employees added during 2022. The Statement asserts that many of those additions were made in first-, second-, and third-line risk management, internal audit and regulatory affairs, with the board's support. These figures do not demonstrate that the resulting functions were adequately designed or sufficiently mature, of course. But they do complicate a narrative of indifference to supervisory concerns or an unwillingness to invest in risk management.

The Directors also provided context for SVB's rapid balance-sheet growth. They maintained that the surge in deposits during 2020 and 2021 was not a strategic objective but the product of extraordinary inflows from the venture-capital and technology sectors during a period of low interest rates. They pointed to management's placement of substantial client funds in third-party money-market funds as evidence of an effort to moderate that growth.

By year-end 2022, they reported, approximately $168 billion in client funds were held off-balance sheet in such funds — nearly half of total client funds. The board viewed that decision as demonstrating "a willingness to slow growth during a period of rapid inflows to SVB." That account illustrates Miller's contention that the board understood rapid growth to present a risk and supported measures intended to constrain it.

The Statement similarly disputed the significance commonly attributed to the vacancy in the Chief Risk Officer position during much of 2022. The Directors maintained that the incumbent CRO was replaced precisely because the board and management believed SVB needed someone with experience at a large financial institution.

While a search proceeded, SVB created an Office of the Chief Risk Officer composed of seven senior risk managers whom the Directors described as possessing significant LFI experience. FRBSF supervisors, the Directors said, knew of and supported that interim structure. By August 2022, SVB had selected Kim Olson, a risk executive with 29 years of experience, including ten years at the Federal Reserve Bank of New York. Her contractual "garden leave" delayed her formal start until late December, although she attended a board offsite in November.

The Directors' description of SVB's transition into the large-bank supervisory portfolio also closely tracks Miller's account of a regulatory "cliff effect." The Statement describes a "sea change in expectations" as SVB moved from the Federal Reserve's regional-banking program into its large-financial-institution framework.

In July 2021, supervisors had credited recent board appointments, increased director engagement, support for additional talent and "meaningful actions" to address regulatory concerns. Barely a year later, however, SVB received its first large-bank supervisory assessment and the bank's composite CAMELS rating was downgraded from 2 (Satisfactory) to 3 (Less than Satisfactory).

Yet even then, the component ratings for Capital, Asset quality, Earnings, Liquidity, and Sensitivity to market risk each remained 2 (Satisfactory); the downgrade in the composite rating was driven by a downgrade in the Management component rating from 2 (Satisfactory) to 3 (Less than Satisfactory). Those ratings did not establish that SVB was free from serious financial risk. But they help explain what Miller described as the "dog that didn't bark": neither the formal ratings nor the supervisors' communications to the board conveyed that SVB's liquidity or interest-rate position placed the institution in imminent danger. Otherwise, the Federal Reserve might have been expected to downgrade the Liquidity and Sensitivity to market risk component ratings — which include interest-rate risk — from 2 (Satisfactory) to 3 (Less than Satisfactory), or perhaps even 4 (Deficient) or 5 (Critically Deficient).

The Directors' Statement also provides context for the large number of MRAs and MRIAs later cited as evidence of management and board inattention to risk.

The Directors acknowledged the rapid accumulation of supervisory findings but emphasized that most concerned technology, operational resilience, and process, rather than deficiencies relating to the level of SVB's liquidity or interest-rate risk. Of the twelve MRIAs issued between 2019 and 2022, the Statement identifies three as relating to SVB's *process* for managing liquidity risk, but not its *level* of liquidity risk. That is, the MRIAs were focused on remediating perceived weaknesses in processes for managing financial risk at SVB rather than remediating the financial risk itself. Other findings concerned vulnerability remediation, technology-risk management, IT asset management, vendor management, identity and access management, data governance and information security.

The board's response to that emphasis was substantial. It created an IT Oversight Group in February 2021, which held 22 meetings over the following fourteen months, including three attended by federal and state supervisors. In 2022, the board established a separate Technology Committee because, as Miller recalled, the volume of technology-related work was consuming an excessive portion of the Audit Committee's time.

With respect to the six liquidity risk-management-related matters (two MRIAs and four MRAs) issued in November 2021, the Directors asserted that SVB submitted remediation plans for all six by their June 2022 deadlines, after review by the bank's internal risk and audit functions. According to the Statement, the Federal Reserve did not respond to those plans.

SVB's Regulatory Affairs team informed the board that supervisors did not expect to do so until completing a horizontal liquidity review for a number of large banking organizations similar to SVB, planned for the first quarter of 2023.

The Directors described their attempts to obtain greater specificity from supervisors as a "cat and mouse" dynamic. At a June 2022 meeting, they recalled being told that the board would have to determine for itself what supervisors expected.

SVB consequently retained highly reputable outside advisers, such as McKinsey and EY, and attempted to benchmark its practices against those of other large financial institutions. This experience is consistent with Miller's recollection of asking, "Is this enough? Is this enough?" while receiving neither clear approval nor a definitive rejection.[114]

The Statement next addressed the three MRIAs concerning governance, risk management and internal audit delivered to the board in May 2022 — the findings most directly implicated by the OIG's criticisms of SVB's governance and three lines of defense. The Directors assigned responsibility for each response to specific board members: board Chair Kay Matthews led the governance work, Kate Mitchell led the risk-management response, and Miller led the internal-audit work.

Two months later, the board gave supervisors a progress report. The lead FRBSF supervisor subsequently wrote to Matthews and CEO Greg Becker that the presentations by the committee chairs had been "quite constructive," adding: "We have a better sense of how seriously SVB's board understands the forward path. I appreciate the respectful approach that SVB leadership has taken on all matters related to our supervisory assessment."

That contemporaneous message is difficult to reconcile with an unqualified portrayal of a disengaged board treating supervisory concerns merely as formalities. The Directors understood that communication to mean that "regulators made it clear that we were on the right track."

"They recalled being told that the board would have to determine for itself what supervisors expected.

The Directors offered particularly detailed accounts of the risk-management and internal-audit work.

In response to the risk-management MRIA, SVB conducted a gap assessment identifying 30 deficiencies against regulatory and industry standards. Its Risk Transformation Program divided the resulting work into 13 workstreams and 174 individual action plans, each with designated owners, deliverables and target dates. The Risk Committee shifted from quarterly to monthly meetings, with sessions expanding from approximately 90 minutes to more than three hours, and a Program Oversight Office was charged with providing monthly progress reports.

[114] It is notable that, throughout its efforts to address the heightened supervisory scrutiny applied to SVB as it grew, the bank's board and management consistently sought the support of highly credentialed external advisers to include: H. Rodgin Cohen, Senior Chairman of Sullivan & Cromwell, former Federal Reserve Vice Chair Roger Ferguson, and former Citi CFO John Gerspach.

The Risk Committee and full board reviewed and approved the plan before its submission to supervisors on August 31st 2022. The Statement asserts that neither the FRBSF nor the California Department of Financial Protection and Innovation ("DFPI") responded.

The internal-audit response followed a similar pattern. A gap assessment identified 19 areas for improvement, producing 106 planned actions and 302 measurable work steps. Miller began meeting with the Internal Audit team every two weeks to monitor progress. The plan and its status were reviewed with supervisors in August and October 2022, with individual actions classified as "at risk," "on track" or "completed."

According to the Directors, Federal Reserve supervisors neither provided a formal response nor expressed concern about the plan's progress.

Later in October, Federal Reserve supervisors began a targeted examination covering many of the same subjects. The resulting December supervisory letter modified some existing expectations and introduced others, causing SVB to add another 60 actions to its plan.

To the Directors, "it felt like supervisors were moving the goalposts." Whether that was the product of shifting supervisory expectations, the discovery of deeper deficiencies, or the inadequacy of SVB's initial response cannot be resolved from the Directors' Statement alone. But the sequence provides material context missing from an account that treats an open supervisory finding as proof that the board had failed to act upon it.

The Directors also directly challenged the Barr Report's statement that senior-management compensation through 2022 was tied to short-term earnings and equity returns without risk metrics. They asserted that risk performance had been incorporated qualitatively into compensation decisions before 2022 and that quantitative risk measures were introduced that year, resulting in significant reductions in incentive compensation for the CEO and other senior executives. They further reported that 71 percent of the CEO's compensation was weighted toward long-term performance, compared with a peer benchmark of 63 percent.

Taken as a whole, the Directors' Statement does not disprove the central finding that SVB failed to manage its interest-rate and liquidity risks. The bank failed, and the ongoing remediation efforts at the time of its closure clearly failed to prevent that outcome.

The Statement instead contests the broader characterization that the directors were inexperienced, inattentive, unwilling to invest in risk management, or content to treat serious supervisory findings as a box-checking exercise. It supplies evidence of extensive activity while leaving a more difficult question unresolved: whether that activity was appropriately directed, sufficiently urgent and capable of producing effective change before SVB's vulnerabilities became fatal.

That question cannot be answered by counting meetings, employees, consultants, workstreams or action items. It requires an account of what the remediation work consisted of in practice: how deficiencies were identified, how priorities were set, what obstacles the teams encountered, what supervisors communicated, and how far the work had progressed by March 2023.

The Directors' Statement therefore points beyond the board's account to the individuals charged with carrying out the work itself. One such individual was recruited into SVB's risk-governance remediation effort and participated directly in the events the directors describe. It is to that operational account that we turn next.

2. "Weaknesses in corporate governance"

In Testimony Before the Subcommittee on Oversight and Investigations, Committee on Financial Services, House of Representatives delivered on May 11th 2023, GAO Director Michael Clements observes: "In 2018, 2019, and 2020, FRBSF … issued (or had outstanding) Matters Requiring Attention related to risk management and liquidity." FRBSF staff, Clements notes, had generally accepted SVB's planned actions to correct deficiencies. "Our review of examination staff's acknowledgement of SVB management responses found the staff generally agreed that SVB's planned actions were reasonably designed to remediate the underlying supervisory issues."[115]

Pursuant to SVB's shift from the RBO to the LFBO examination category in June 2021, the GAO continues, "examiners identified additional liquidity and management deficiencies." In an August 2021 review, "FRBSF raised serious concerns around how the institution was managing liquidity risk," the GAO notes. "It found that liquidity risk-management practices were below supervisory expectations."[116]

Examiners issued two Matters Requiring Immediate Attention and four Matters Requiring Attention regarding these issues. And, the GAO continues, after a May 2022 review of SVB Financial Group and SVB conducted under the LFI rating system, examiners also "found that the bank's governance and risk-management practices also were below supervisory expectations." In response, FRBSF issued three MRIAs related to risk management.[117]

Interview with Mark Watson

Mark Watson was one of those hired by SVB and tasked with helping to remediate such concerns. And on June 11th 2026, Starling interviewed Watson to capture his perspective of SVB's remediation efforts.[118]

Watson's account begins with the reason SVB brought him inside the institution. By late 2021, Watson was working at EY in its risk-advisory governance practice and was part of a substantial EY team serving SVB. He led projects concerning board and management governance and advised other EY teams working on risk appetite, risk reporting, and issues management.

The work brought Watson into regular contact with SVB's General Counsel, board and senior management. As Watson recalls it, the General Counsel's invitation was straightforward: "You're doing a good job. Could you do it faster when you come into the organization?"

Watson believed that he could. As an outside consultant, he could recommend changes but possessed no authority to carry them out. Moving inside SVB would allow him to accelerate the work directly.

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[115] U.S. Government Accountability Office, *Testimony Before the Subcommittee on Oversight and Investigations, Committee on Financial Services, House of Representatives* (Washington: Government Accountability Office, May 11 2023), 3, https://www.gao.gov/assets/gao-23-106834.pdf.
[116] Ibid., 4.
[117] Ibid.
[118] Appendix A-16, Mark Watson, 11 June 2026.

“The reason I joined,” he explains, was principally that he knew he “could accelerate [management governance] much quicker” from within the organization.

Watson joined SVB as Head of Management Governance in September 2022. The account Watson provided Starling represents firsthand evidence of SVB’s risk remediation efforts, offered by an individual directly involved in that work — evidence the principal postmortem teams did not seek. Asked whether the Barr, GAO or OIG investigators had interviewed him, Watson answered: “Nobody reached out to me.”

Watson’s principal responsibility was to redesign a management-governance structure that had accumulated more than 100 committees — Watson later placed the number at approximately 140 — some with broad mandates and others with extremely narrow ones. The objective was not simply to rewrite committee charters, but to create a more coherent system of authority, escalation, risk challenge and reporting. Watson anticipated that the undertaking would require approximately three years.

His related work on board governance included assisting with the creation of a Technology Committee, clarifying how it would interact with other board committees and management, and contributing to the revision of board committee charters. Although he reported to the General Counsel and worked within the Legal Department, Watson is not a lawyer. He describes his role as that of a governance and risk-management specialist serving as an adviser to the board.

That role drew upon a professional background particularly relevant to the problem SVB was attempting to solve. At EY, Watson advised multiple financial institutions and participated in discussions with regulators concerning supervisory priorities in areas including risk management, operational resilience, cybersecurity and third-party risk. He also led the annual global Chief Risk Officer survey conducted by EY and the Institute of International Finance. In Watson’s formulation, he had for five years run “the best Chief Risk Officer banking report in the world. It’s the industry standard.”

That work gave Watson access to industry-wide benchmarks not readily available to any single institution. He could compare governance structures, risk practices and reporting arrangements across a broad group of banks without disclosing confidential information about any one of them. This comparative perspective was one of the principal capabilities SVB sought when it hired Watson and other advisers as it entered the large-financial-institution supervisory portfolio.

Watson also brought an unusual combination of external and internal perspective. He had observed SVB first as a consultant and then joined its management. The transition did not reveal a hidden reality markedly worse than he had understood from the outside. “When I got there,” he recalls, “I didn’t find, ‘Oh my God, it’s worse than I thought’; it wasn’t at all.” He had already worked extensively with the board, CEO, and management team and was familiar with the remediation effort he was joining.

By the time Watson entered SVB, the bank had established what he remembered as the Risk Transformation Program. He recalled between 11 and 14 interdependent workstreams, broadly consistent with the 13 workstreams identified in the SVB Directors' Statement. These included risk appetite, risk reporting, internal audit, board governance, management governance, and issues management.

In Watson's estimation, "you could trace 90% of it to regulatory remediation." Some work addressed MRAs and MRIAs directly. Other projects addressed related deficiencies that had to be corrected if the expressly cited matters were to be remediated coherently. The purpose of placing them within a common transformation program was to prevent numerous workstreams from duplicating effort or working at cross-purposes.

Multiple consulting firms supported the undertaking. External project-management specialists monitored milestones, deliverables, dependencies, and delays while advisers such as EY supplied subject-matter expertise. SVB was simultaneously recruiting personnel with experience at larger institutions, particularly Citi and Wells Fargo. Watson regarded this as evidence of an institution attempting to catch up with the obligations imposed by its rapid growth, rather than one that had suddenly discovered risk management only after supervisors forced it to act.

"I don't think it's fair to say they didn't care about risk and compliance and then the regulators, thankfully, told them what to do, and the SVB leadership woke up," he explains.

In Watson's account, the more accurate story is that SVB had moved in a short period from a relatively small regional institution to one of the largest banks in the country, and was attempting to build governance, compliance, risk-management and internal-audit capabilities appropriate to its new size.

Watson observed little resistance to the resulting expense. As an EY adviser, he did not encounter unusually contentious fee negotiations. Once inside SVB, he did not recall being told that his work lacked a budget. Management did ask whether the new systems could be designed efficiently and whether requested headcount could be justified.

But Watson distinguished those questions from an effort to minimize or avoid remediation. His own workstream appeared to demonstrate the institution's willingness to move quickly. The management-governance project had originally been expected to take two to two-and-a-half years after he joined. Six months later, Watson believed it was nine months ahead of schedule and likely to finish at least a year early.

The reaction he received was the "complete reverse of friction": "Can we do this faster? This is going to help us." This experience informed Watson's response to one of the Barr Report's most pointed criticisms: that SVB treated the resolution of supervisory findings "as a compliance exercise rather than as a critical risk-management issue."

Asked whether that characterization reflected what he observed, Watson answered directly: "No, it doesn't."

Long-serving personnel understood, in his telling, that SVB had become a substantially larger institution and needed to "up our game." The objective was not simply to multiply committees and controls. Watson intended to reduce approximately 140 management committees to roughly 80 because preserving all of them would have increased bureaucracy without necessarily improving governance.

Watson's principal evidence was the scale and character of the undertaking. If SVB had been seeking only to satisfy supervisors formally, he argues, it would have spent less on consultants, hired weaker personnel and done the minimum necessary to secure closure of individual findings.

Instead, SVB accepted what he described as an "enormous" transformation program and a substantial continuing cost base. A culture concerned only with compliance, he argues, seeks to "do as little as you can to make the regulators go away." That was not the institution he experienced.

The scale of activity does not establish its effectiveness. Nor does expenditure demonstrate that management identified and prioritized the risks most capable of threatening SVB. But Watson's account provides operational support for the directors' contention that SVB was not indifferent to supervisory findings and did not approach them merely as isolated boxes to be checked.

Watson was equally clear that the program remained incomplete. It had been operating for only approximately six to twelve months when SVB failed.

Few substantive deliverables, if any, had progressed through implementation, Internal Audit validation and final submission for supervisory closure. What Watson's account reveals is that SVB had committed significant resources to an extensive remediation effort that was making progress, but much of the work remained unfinished when SVB entered receivership.

The work was also visible to supervisors. Watson describes three overlapping forms of regulatory engagement. Program leaders met with regulators, generally about once a month, to discuss the transformation program's workstreams, executive sponsors, timelines, principal milestones and deliverables. Individual workstream leaders — including Watson — held separate meetings concerning their areas of responsibility. At the same time, supervisors continued their ordinary examination activity under the continuous-monitoring framework applicable to large institutions.

Delays were reflected in the program plan and communicated. Before meeting supervisors, Watson and the board-governance lead would consult the personnel responsible for program-level regulatory engagement to learn what questions had arisen and what materials should be prepared.

Watson was therefore confident that the Federal Reserve was receiving regular information about both the overall program and the work occurring within it. This transparency is central to his criticism of the postmortem narrative. "All of the issues in question were very transparent to the regulators," he says. "There was nothing surprising about what was there and what was not there."

The information flow, however, was asymmetric. When asked whether his supervisory interactions provided the clarity and feedback needed to understand whether SVB's approach would satisfy expectations, Watson responded: "No. No."

"I would say we were answering their questions," he explains; "they weren't giving us their views." The meetings were structured so that supervisors could learn what SVB was doing, not so that the bank could understand what supervisors believed the work should produce. Watson and his colleagues could present their principles, proposed governance structures and planned escalation arrangements, but they could not obtain confirmation that those designs met the expected standard.

Watson illustrates the problem with questions supervisors asked about how a hypothetical third-party cybersecurity issue would move through SVB's proposed committee structure. He could trace the escalation path and identify when the matter would reach the board Risk Committee. But when he attempted to determine whether the concern involved cybersecurity specifically, the escalation process more generally, or the role of second-line challenge, the response was simply: "Oh, we just asked a question."

Watson would leave such meetings with colleagues attempting to infer the significance of what they had heard: "Well, let's try and guess what they meant by that."

> **Well, let's try and guess what they meant by that.**
>
> Mark Watson
> past-Head of Management Governance
> SVB

Watson regarded the Independent Directors' "cat and mouse" characterization of the dynamic between SVB and Fed examiners as an imperfect description of the relationship, because he was uncertain which participant was the cat and which was the mouse. But if the phrase meant having to "guess what's in the mind of the person [who] sat in front of you," he says, that occurred "all the time."

Watson recognized a legitimate reason for some supervisory restraint. Regulations establish minimum requirements, while supervisory expectations may depend upon the practices of comparable institutions. A supervisor cannot simply impose a requirement inconsistent with the governing rule. Nor can examiners necessarily prescribe the exact organizational form a bank must adopt. But in Watson's experience, this left institutions to determine for themselves what acceptable practice looked like.

"You have to guess how you're going to solve it, and then you do your best," he explains. SVB would design a response, obtain review and approval through its own lines of defense, and submit the completed work. Only then might supervisors indicate whether it was sufficient. "You don't really get an answer to 'Did I answer the exam question correctly?' until you've answered the exam question."

In that environment, banks turn to individuals and firms possessing broader industry knowledge.

"They [banks] bring in consultants," Watson says. "They either bring them in or they recruit people with that experience." SVB did both. It commissioned benchmarking work and recruited personnel from large, closely supervised institutions. The objective was not to lead the industry at any cost, but to place SVB “firmly in the middle” of the large-bank peer group — neither underinvesting nor constructing a system more elaborate than the institution required.

Watson believed the transformation plans were calibrated to that objective. The teams, he says, were confident that “the bogey they were aiming for was solidly in the middle of the pack.” He remembered the workstreams as generally progressing, with his own substantially ahead of schedule. He did not recall hearing that supervisors regarded the program as materially off course or moving too slowly.

Watson allowed that supervisors might have held such concerns. His point was that they were not communicated through the program. Had SVB been told that it was pursuing the wrong result or proceeding at an inadequate pace, he believes the message would have reached the approximately 1,500 people involved in the work. “If they felt we weren’t on par with the middle of the pack doing the right thing at the right pace, they did not communicate it,” he says. “If we’d have found out we were doing the wrong thing, we would’ve course corrected.”

Watson similarly resisted the inference that the transition in Chief Risk Officer leadership had brought the remediation program to a halt. He was uncertain about the precise timing of that transition, but his observation was that, independent of a CRO, SVB’s transformation program had acquired its own workstream leaders, experienced recruits, consultants and project-management infrastructure.

It had become, in his description, “a big juggernaut” whose work did not depend entirely upon the presence or capability of any one executive.

These observations concern governance remediation, not the management of the financial risks that caused SVB’s failure, and Watson was careful to mark that boundary. He was not involved when the extraordinary deposit inflows were invested and did not know what questions the board, management or supervisors asked about duration, hedging, market risk or interest-rate exposure.

That limitation makes Watson’s final observation especially important.

The transformation effort he witnessed did not change materially during the final days of SVB’s life. “The risk management didn’t change from Wednesday to Friday,” he says; “it was a financial issue.” By this he meant that the sudden failure could not be explained by an overnight change in the governance-remediation program. In Watson’s view, the acute vulnerability SVB faced in 2023 arose from its financial position and the reaction to its announced securities sale and capital raise.

Watson believed that the relevant balance-sheet exposure had been visible in SVB’s financial statements and that supervisors, with access to nonpublic information, were positioned to ask more detailed questions about how the deposit inflows had been invested and hedged. In his judgment, the central postmortem question should have been: “How did we miss the financial risk issue?”

Watson’s account speaks to the Barr Report’s finding that supervisors did not fully appreciate SVB’s vulnerabilities. On Watson’s account, supervisors did not lack information about SVB’s governance and remediation weaknesses. Those matters were the subject of MRAs, MRIAs, program-level discussions, workstream meetings and continuous examinations. What appears to have been missing was the synthesis and prioritization necessary to distinguish deficiencies requiring long-term institutional improvement from a financial vulnerability capable of destroying SVB before that improvement could be completed.

Watson places that failure within the transition from regional-bank to large-bank supervision. A threshold-based system, he argues, requires anticipatory supervision: “You should see what’s likely going to happen to this institution.” Rapidly growing banks need a clearer transition between supervisory teams, clearer expectations and a realistic understanding of how quickly large-scale institutional change can be achieved.

Without that foresight, Watson warns, another institution will fail and supervisors will point to the accumulated MRAs and MRIAs as proof that they identified the problems but the bank “just didn’t take them seriously.”

3. "Supervisors did not fully appreciate the bank's vulnerabilities"

In its April 2023 "Preliminary Review of Agency Actions Related to March 2023 Bank Failures," the U.S. Government Accountability Office observed:

> *Our review of FRBSF examination documents for SVB found that FRBSF identified issues related to the concentration of SVB's deposits and funding structure as early as 2018. In particular, FRBSF documents note the potential volatility of SVB's deposits could pose liquidity risks. Additionally, in 2021, FRBSF identified key deficiencies in liquidity risk management for SVB, including modeling of its deposit outflows during stress and testing of its contingent funding plan.*[119]

Nevertheless, the GAO continued:

> *FRBSF was generally positive in its ratings of SVB from December 2018 to June 2022, rating SVB's overall condition as "satisfactory" during that period. In addition, examiners assigned the highest available CAMELS rating for SVB's liquidity-management practices from December 2018 to June 2022. In the same period, examiners assigned the second-highest available CAMELS rating for management practices.*[120]

Watson's testimony thus gives more precise meaning to the Barr Report's conclusion that "supervisors did not fully appreciate the bank's vulnerabilities." The question is not simply whether supervisors knew that SVB had problems. The record suggests that they did. The more probative question is whether they recognized which combination of problems could bring SVB down, communicated that judgment with sufficient clarity and urgency, and acted before a program designed to address longer-term weaknesses was overtaken by a much faster-moving financial threat.

[Board Staff 15] Interview

Starling sought to explore this very question with [Board Staff 15]. In interviews conducted on June 4th and continued on June 12th 2026, [Board Staff 15] offered an account that helps to sharpen this distinction between the attention Fed supervisors devoted to financial versus non-financial risk issues at SVB.[121]

[Board Staff 15] opened our discussion by noting that he devotes approximately half his time to matters involving supervision and regulation. He described the Board's Legal Division as a close partner to the Division of Supervision and Regulation in rulemaking, supervisory policy, and enforcement, but acknowledged that Legal plays a substantially lesser role in the hands-on supervision of individual banks.

[119] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 15.
[120] Ibid., 17.
[121] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

“Being an examiner is a very hard job,” [Board Staff 15] cautioned. “I’ve never been one.” His interview testimony is therefore that of a senior institutional observer, rather than a participant in SVB’s day-to-day supervision.

[Board Staff 15]’s discussion centered on the failure to recognize how SVB’s vulnerabilities interacted.

SVB’s failure, he said, resulted from “a toxic combination of many things,” beginning with its extraordinary growth. SVB doubled in size during 2020 and 2021. Historically, he observed, rapidly growing banks fail at a substantially higher rate than slower-growing institutions: “We’ve always known that fast growth was an indicia of potential future distress. But that bank grew super-fast.”

To this were added a remarkably high proportion of uninsured deposits, a depositor base concentrated in a small number of industries, and a very large securities portfolio carrying substantial duration risk and, throughout 2022 and into early 2023, significant unrealized losses.

None of these facts was obscure. “All of this information was public,” [Board Staff 15] emphasized. “Every fact I’ve just mentioned — the rapid growth, the 90 plus percent uninsured deposits, the concentrated depositor base, the giant securities portfolio, the huge duration risk and mark-to-market losses in the book. Everybody knew that, and almost nobody seemed to be worried about it.”

> “**Being an examiner is a very hard job.**
>
> [Board Staff 15]

That failure was not confined to Federal Reserve supervisors. [Board Staff 15] noted that the rating agencies continued to rate SVB investment grade until its failure, while nearly all the equity analysts covering SVB had maintained buy or hold recommendations. In his view, firm management, supervisors, rating agencies, investors, and analysts all failed to anticipate the danger.

But he was equally clear that this wider failure did not excuse the supervisory lapse: “The supervisors missed it too,” he said. When asked directly whether supervisors had missed the danger despite possessing information beyond that available to the market, [Board Staff 15] answered without qualification: “Yeah, I think they did miss it.”

The evidence for that claim, as [Board Staff 15] described it, lay partly in the disjunction between SVB’s condition and its supervisory ratings. “We had pretty good ratings on Silicon Valley Bank till late in the game,” he observed. “And, even at the end, even at the death day, it had a satisfactory rating for liquidity and for market risk, interest-rate risk.” The problem, in [Board Staff 15]’s telling, was not that supervisors were unaware of the underlying facts. It was “almost like a failure of imagination” to see that the particular combination of facts present at SVB could produce a collapse of such speed, he said.

The distribution and content of supervisory findings reinforce that conclusion.

[Board Staff 15] recalled — with the caveat that his precise count might be slightly off — that SVB had approximately 35 outstanding Matters Requiring Attention or Matters Requiring Immediate Attention near the end of its life. Only seven, he said, concerned the risks that ultimately mattered most: liquidity and interest-rate risk. "And, in hindsight at least," he observed, "it looks like maybe that wasn't the best triage." The remaining 28 addressed matters that, viewed in light of the failure, were "largely irrelevant."

> **"Almost like a failure of imagination.**
>
> [Board Staff 15]

Even the seven findings directed to relevant subjects did not necessarily address the danger in a way calculated to reduce it, [Board Staff 15] argued.

Supervisors were not, he said, directing SVB to hedge substantially more of the duration risk in its securities portfolio or to reduce the portfolio's duration. Instead, "It was a lot of process and procedure and governance and controls criticism that may or may not have helped."

One supervisory finding did instruct SVB to improve the segmentation of depositors according to liquidity risk. And while that may have appeared reasonable ex ante, he said, it failed to capture what ultimately occurred: "They all ran. There was no need to differentiate your depositors. They all ran."

[Board Staff 15]'s account thus identifies a problem more specific than the mere absence of supervisory activity. Supervisors were active. They had identified deficiencies, issued numerous findings, and directed considerable attention toward SVB. But their activity did not reflect an adequate prioritization of the risks capable of producing failure, nor did the findings directed to those risks consistently demand the concrete balance-sheet changes that might have reduced them.

Nor, in [Board Staff 15]'s view, was the problem principally a lack of information. Supervisors possessed information unavailable to the public, but he did not consider that additional information essential to recognizing the danger. Public disclosures were sufficient to reveal the enormous duration risk, the potential for rapidly rising rates to produce severe unrealized losses, and the instability created by a deposit base that was overwhelmingly uninsured, [Board Staff 15] insisted.

"You simply needed to be able to connect all those dots," he said, "and see that this concatenation of facts could result in a really, really rapid sudden demise of that firm."

[Board Staff 15] attributed part of the difficulty to the absence of clear institutional tolerances for interest-rate risk. Rules provide examiners with definite standards against which compliance can be measured. The more difficult work of supervision occurs, he explained, "where it's gray."

Although the Federal Reserve had guidance addressing interest-rate risk, that guidance was high-level and focused substantially on policies and procedures. An examiner could reasonably be uncertain about how much interest-rate risk the Federal Reserve was prepared to tolerate at a particular institution.

"Silicon Valley Bank, everybody knew, ex ante, there was a lot of interest-rate risk going on there," [Board Staff 15] explained, "but no one knew if the amount of interest-rate risk that was going on there was exceeding some risk tolerance threshold, because I don't think we really had adequately set one." Clearer and more concrete supervisory expectations concerning the permissible level of interest-rate risk, he suggested, "probably would've helped."

[Board Staff 15] did not place comparable weight on SVB's transition from the prudential standards deployed by the Regional Banking Organization portfolio to the Large & Foreign Banking Organization portfolio.

He acknowledged "some lack of clarity" concerning the transition, the applicable timelines, and when heightened standards should take effect. But he would not place that issue "towards the top" of his list of causes for SVB's failure, and he doubted that an immediate application of LFBO's full supervisory program would have changed the ultimate outcome. The more consequential gap was substantive, [Board Staff 15] argued: the absence of sufficiently clear limits on interest-rate risk and the failure to recognize how that risk combined with SVB's funding structure.

The Federal Reserve had several institutional mechanisms intended to identify such gaps, [Board Staff 15] noted, pointing to the supervisory portfolios themselves, a Risk function within the Division of Supervision and Regulation charged with looking across the banking system for what are often termed "horizontal risks," and the Division of Financial Stability. Despite these overlapping lines of sight, [Board Staff 15] said, "we lacked imagination and did not see that this particular set of fact patterns at Silicon Valley Bank and, to a lesser extent, Signature and First Republic, could result in the massive, rapid, high-velocity, high-intensity crashes."

At its core, [Board Staff 15] said, SVB's vulnerability was "a two-part story." Interest-rate risk alone did not explain the failure; nor did liquidity risk viewed in isolation. It was "really the toxic combination of those two together that caused the problem" — a large, duration-sensitive securities portfolio joined to an unusually concentrated and predominantly uninsured deposit base.

The supervisory task was therefore not merely to identify each risk separately, but to understand how stress in one could activate the other with extraordinary speed.

[Board Staff 15] ultimately characterized what occurred as both a management failure and a supervisory failure. The rise in short-term interest rates was severe, and not so remote that banks and their supervisors could reasonably disregard it. In his view, the public could expect banks — and banking regulators — to prepare for an increase of four to five percentage points over approximately 18 months. Historical precedent existed for such a movement, and the scenario fell within "the window of the kinds of things that management of a bank should be thinking about and supervisors should be preventing."

[Board Staff 15] did not offer that judgment from the safety of claimed foresight. "I didn't see this coming," he acknowledged. That concession lends weight to his broader point. The lapse was not that supervisors possessed no knowledge of SVB's weaknesses, or that SVB's vulnerabilities were concealed from view. It was that the relevant facts were not assembled into a sufficiently urgent judgment about SVB's susceptibility to a rapid failure.

Supervisors identified many problems but did not adequately distinguish the consequential from the incidental, [Board Staff 15] argued; they addressed liquidity and interest-rate risk, but often through criticisms of process, governance, and controls, and they did not fully apprehend how duration losses, concentrated uninsured funding, and the possibility of a coordinated run could interact. In this sense, [Board Staff 15]'s testimony gives a more precise meaning to the Barr Report's assertion; supervisors did not fail to see the individual pieces of SVB's risk profile, they failed to recognize, communicate, and act upon what those pieces meant when combined.

[Board Staff 3] Interview

That conclusion becomes more compelling when placed alongside the testimony of **[Board Staff 3]**, who was a member of the Board's Risk Function during the period most relevant to SVB's failure.

Starling interviewed [Board Staff 3] on June 15th 2026.[122] In the 2022 timeframe, [Board Staff 3] explained, the Board's Risk function ("Risk") sat within the Board's supervision function, but was intended to look horizontally, across the Federal Reserve's supervisory portfolios, to identify emerging threats, compare their significance across institutions, and bring concerns to the attention of the portfolios responsible for individual banks. [Board Staff 3], therefore, was not a member of the team responsible for SVB's day-to-day supervision. His perspective, instead, was that of someone charged with identifying risks that might not be fully visible within a single supervisory portfolio.

Where [Board Staff 15] described a supervisory institution that possessed the constituent pieces of SVB's risk profile but failed to understand what those pieces meant when combined, [Board Staff 3]'s account suggests that, within at least some parts of the Federal Reserve System, personnel were beginning to assemble those pieces and to warn that the resulting exposure required action.

The failure of supervision concerning SVB, on [Board Staff 3]'s telling, was not simply one of recognition. It was also a failure to resolve competing assessments of the relevant risks and to convert concern into a unified supervisory response. To explore how this may have occurred, [Board Staff 3] offered Starling a view of the organizational limitations under which the Risk function operated.

Risk did not possess the independence, budget, or authority of a conventional 'second-line' risk function. Many of its personnel divided their time between Risk and the supervisory portfolios within which they sat; notably, groups whose judgments Risk might be expected to challenge.

[Board Staff 3] further described the Board's System Risk Council, a body that was intended to coordinate risk judgments across the Board and Reserve Banks, but one that, in [Board Staff 3]'s view, "did not operate effectively." Its members, [Board Staff 3] explained, often continued to wear

[122] Appendix A-3, [Board Staff 3], 15 June 2026.

the “jersey” of their Reserve Bank or supervisory portfolio rather than that of the System-wide Risk function.

[Board Staff 3] reduced the resulting imbalance to a simple formulation: “Risk has one voice, portfolios have four voices. So, if they are unified, it’s four voices to one and four voices is always louder than one. So yes, I think that is a weakness.” Risk could identify a concern, circulate analysis, and urge a portfolio to respond. It could not compel the portfolio to accept its assessment, redirect examination resources, change a supervisory plan, or alter a rating.

“Looking back at examination reports, examiners just didn’t see the risk early enough.

[Board Staff 3]

[Board Staff 3] recalled that the Board’s separate Risk and Surveillance functions had identified interest-rate risk as an emerging trend by the first quarter of 2021. Documents [Board Staff 3] subsequently provided to Starling indicate that a Surveillance report in the first quarter of 2021 pointed to heightened investment securities risk stemming from a greater share of securities holdings on banks’ balance sheets, as banks deployed excess liquidity and sought higher yields. This included increases in long-dated securities and credit-sensitive securities, which served as investment securities risk indicators under BETR. Further, a Surveillance report issued in the second quarter of 2021 warned that the share of high-risk banks for interest-rate risk was elevated compared with historical trends.

As rates began to rise in 2022, Risk became increasingly concerned about the combination of unrealized securities losses and the liquidity pressures that could arise if banks were required to convert those securities into cash. Risk and Surveillance monitored institutions with substantial unrealized losses, examined whether those losses might impair access to Federal Home Loan Bank advances, and prepared memoranda for members of the Board concerning the resulting liquidity risk.

Yet [Board Staff 3] was candid that even this effort began later than it should have.

Risk began “beating the drum” as interest rates rose in 2022, he said, but “that was still too late in my opinion.” The more consequential supervisory moment had occurred earlier, when banks were accumulating long-duration securities during the extended low-rate environment.

“Looking back at examination reports, examiners just didn’t see the risk early enough,” [Board Staff 3] said. “I think it had been too long. I think people had just fell asleep [sic] on interest-rate risk, and people just didn’t remember the ‘80s and ‘90s.” In some instances, [Board Staff 3] recalled, examiners appeared to agree with bank management decisions to purchase longer-duration securities in search of improved earnings, without insisting upon mitigants sufficient to protect against an abrupt reversal in rates.

[Board Staff 3]’s account resists the proposition that supervisors were altogether unaware of the danger. “I think some people saw it,” he said. Reserve Bank personnel had published analyses concerning long-duration securities holdings, and Risk and Surveillance had begun calling attention to unrealized losses and the liquidity consequences that could follow. But, [Board Staff 3] observed, that analysis "didn't seem to translate into a supervisory response."

The central disagreement concerned not the existence or size of the losses, but the probability that banks would ever be forced to recognize them. [Board Staff 3] summarized the prevailing supervisory portfolio response as: "Yeah, yeah, yeah, we see it's large, but they'll never recognize the loss, right? They'll never recognize it." So long as securities remained classified as Held-to-Maturity ("HTM"), and so long as banks retained sufficient funding to avoid selling them, the losses could be viewed as an accounting exposure rather than an immediate threat to liquidity or solvency.

Risk approached the matter differently. Its concern was that the losses had become so large that supervisors could not responsibly discount the possibility of an event that forced their recognition.

"I think people saw the risk," [Board Staff 3] explained. "They just assigned a different probability of something bad happening." In [Board Staff 3]'s characterization, Risk believed that the magnitude of the potential losses meant that "the probability didn't matter." Even a scenario regarded as unlikely warranted supervisory attention where its consequences could be severe.

[Board Staff 3] remembered this disagreement carrying into discussions with the leadership of the large-bank supervisory portfolio.

At the request of the Deputy Director for Supervision, [Board Staff 3] said, Risk established a cross-portfolio group to examine the implications of rising rates. The large-bank portfolio assigned two analysts to participate, one of whom worked on SVB. [Board Staff 3] recalled, however, that leadership of the LFBO portfolio did not initially regard the project as requiring substantial attention.[123]

[Board Staff 3] remembered LFBO leadership expressing the view that the issue should not consume much of the time of the analyst LFBO had assigned to the cross-portfolio group, because it was not expected to become a major problem. The underlying reasoning, as [Board Staff 3] understood it, remained that the losses were "parked in held-to-maturity securities." Absent a sale that tainted the portfolio, why would SVB ever have to recognize them?

[Board Staff 3] did not suggest that Risk had perfectly anticipated which institution would fail. He regarded SVB as being in poor condition but recalled believing that another institution appeared still more exposed to the same risk concerns. [Board Staff 3] described an internal debate in which one part of the supervisory apparatus assigned materially greater weight than another to the possible consequences of a recognized vulnerability.

SVB nevertheless became a specific focus of Risk's concern.

[Board Staff 3] recalled that Risk had urged the LFBO portfolio to downgrade SVB's Liquidity rating months before the bank failed. Qualifying his account as a matter of recollection, [Board Staff 3] recounted: "If I remember, I think liquidity was rated a 2. I think it fails with a 3, and that 3 was made at

[123] Addendum Item 2, *Board S&R and FRBSF Supervision.*

the last minute. It's been a long time since I looked at it, but we were trying to get them to downgrade to at least a 3 several months before it failed."

Risk's concern also found its way into presentations to senior Fed officials.

In February 2023 — approximately one month before SVB's failure — [Board Staff 3] and a Federal Reserve Bank of Cleveland market-liquidity specialist presented their assessment of System-wide liquidity risk to the Heads of Supervision from the 12 Reserve Banks. The purpose was not simply to describe the risk, but to discuss what supervisory action might be warranted. "My recollection was that all 12 Reserve Banks said they have it [liquidity risk stemming from unrealized losses] handled," [Board Staff 3] said.

[Board Staff 3] was struck by the response. He believed that the Deputy Director for Supervision had read Risk's work and understood that a serious problem could develop, but he did not recall her challenging the Reserve Bank heads' assurances during that meeting. [Board Staff 3] was careful to acknowledge the limits of his knowledge: she might have pressed the issue in discussions of which he was unaware. Even so, the episode reinforced his impression that authority to act within the System had become uncertain.

"How much control do you have over Reserve Banks?" he asked. "Who's the ultimate decision maker?" The answer, in his view, was decidedly unclear.

> **How much control do you have over Reserve Banks? Who's the ultimate decision maker?**
>
> [Board Staff 3]

[Board Staff 3] also participated in preparing a briefing for the Board of Governors on the effects of rising interest rates. When Risk considered which institution should be used to illustrate the exposure, [Board Staff 3] recalled that SVB came immediately to mind. Despite concern voiced by the head of the LFBO portfolio that SVB might be an unrepresentative example, Risk retained it because, as [Board Staff 3] put it, "There needs to be more eyes on it." He explained: "We chose SVB — or, I chose SVB — because we thought that it was one of the riskiest banks, and we thought this would be a good way to let the Governors know about it."

The head of the LFBO portfolio objected that highlighting SVB might present the Governors with a distorted picture of conditions across the banking system. His concern was perhaps not without merit: an outlier, if SVB was in fact an outlier, can be a poor proxy for a broader population. But it also illustrates the difference between a portfolio perspective concerned with representativeness and a Risk perspective concerned with the severity of a particular exposure.

According to [Board Staff 3], the Board briefing proceeded with SVB as an example, and the Governors were alerted to the bank's vulnerability approximately one month before it failed. Yet that warning did not produce an intervention commensurate with the danger Risk believed it was presenting through the Board briefing.

[Board Staff 3]'s testimony should not be read to suggest that Risk foresaw the precise sequence that ultimately brought SVB down. "I don't think that we predicted a huge run on uninsured deposits," he acknowledged. Risk's work concentrated more heavily upon deposit betas, the stability of deposits in a rising-rate environment, unrealized securities losses, and the possibility that diminished tangible capital might interfere with access to contingent funding. Its personnel understood that SVB could come under liquidity pressure, but they did not anticipate the speed and scale of the uninsured-depositor run.

That limitation supplies an important qualification to [Board Staff 3]'s account. Risk had identified a dangerous relationship between rising rates, unrealized losses, and liquidity. It had not fully understood the mechanism by which that relationship might become fatal.

In this respect, Risk's analysis still fell short of appreciating the complete combination of vulnerabilities described by [Board Staff 15]: a concentrated and highly connected depositor base, extraordinarily high levels of uninsured funding, embedded interest-rate losses, and a run capable of proceeding at unprecedented speed.[124] [Board Staff 3]'s recollection of SVB's attempted capital raise illustrates the distinction.

When news of the intended capital raising transaction reached the Risk function, the head of the Risk function immediately reacted, according to [Board Staff 3]'s recollection: "That bank's going to fail. Oh my God, that bank's going to fail."

[Board Staff 3]'s own initial reaction was different. For him, the transaction meant: "Finally!" He expected it to force recognition of the problem and bring about a rating downgrade and corrective supervisory action. "Finally they're going to correct this," he recalled thinking. "Finally, they're going to have to downgrade the bank."

[Board Staff 3] therefore understood the capital raise principally as the event that would compel supervisors and management to address a vulnerability Risk had already identified. He did not anticipate that the corrective capital raise itself might precipitate the market's realization of SVB's condition and help to trigger a run. Even among those who regarded SVB as one of the riskiest banks in the System, appreciation of the danger remained incomplete until the final sequence had begun.

[Board Staff 3]'s account also raises a question about how the Barr Report characterized the supervisory failure.

[Board Staff 3] was not interviewed for that review by [Board Staff 14]'s team, although he believed the Risk unit head had been interviewed near the end of the process. [Board Staff 3] said he considered the OIG's Material Loss Review to be more reflective of the contributions to the oversight of SVB made by Risk and Surveillance. In [Board Staff 3]'s view, the established public narrative has consistently understated the extent to which those functions had been "flagging the risk" at SVB well before the bank's failure.

[124] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

Contemporaneous materials [Board Staff 3] has provided Starling — including Risk memoranda, the presentation to the Reserve Bank Heads of Supervision, the Board briefing, communications concerning the selection of SVB as an example for inclusion therein, and discussions of a possible liquidity downgrade — will provide an important means of testing his recollections in the next phase of this Inquiry.

If substantiated by such records, [Board Staff 3]'s account would refine the Barr Report's conclusion consequentially. "Supervisors did not fully appreciate the bank's vulnerabilities" could not then be taken to mean that no one within the Federal Reserve's supervisory function saw the accumulating risk at SVB, or that no one attempted to raise an alarm.

[Board Staff 3]'s testimony suggests that some personnel recognized the significance of SVB's unrealized losses, connected those losses to potential liquidity stress, regarded SVB as among the riskiest institutions in the System, and sought to bring that concern before senior officials.

What the supervisory system failed to produce was an authoritative institutional judgment. Risk could identify and escalate a threat, while the responsible portfolio could assign it a lower probability and decline to alter its supervisory program. Analysis could reach the Reserve Bank Heads of Supervision and the Board of Governors without producing an agreed response. And those who saw the danger most clearly could still fail to anticipate the precipitating event that would convert a serious vulnerability into an immediate failure.

[Board Staff 3]'s testimony thus suggests that the problem was not merely that supervisors failed to connect the relevant dots. It was also that the Federal Reserve lacked an effective means of deciding whose connection of those dots should govern — and of ensuring that a warning, once given, resulted in timely action.

[Board Staff 16] Interview

The institutional failure described by [Board Staff 3] — the production of warnings without an effective mechanism for determining whose judgment should govern — finds another dimension in the account offered by **[Board Staff 16]**, whom Starling interviewed on June 9th 2026.[125]

By then, [Board Staff 16] had spent a long career in Supervision and, beginning in 2019, served in a leadership role over the Community Banking Organization ("CBO") and Regional Banking Organization ("RBO") supervisory programs. If, in his interview with Starling, [Board Staff 3] focused upon the weak position of the Board's Risk function relative to its supervisory portfolios, our discussion with [Board Staff 16] focused upon the Federal Reserve's difficulty in transferring knowledge and supervisory practice from one portfolio to another.

[Board Staff 16] was careful to distinguish that portfolio oversight responsibility from the day-to-day examination of SVB and other banks. In the case of SVB, exam work remained largely delegated to the

[125] Appendix A-14, [Board Staff 16], 9 June 2026.

Federal Reserve Bank of San Francisco. Although the bank was within the Board's RBO program during approximately the first two years of [Board Staff 16]'s tenure, he did not remember hearing SVB's name in connection with its ordinary supervision. SVB came onto his radar only when it became the first domestic institution required to transition from the RBO program into the Large & Foreign Banking Organization ("LFBO") portfolio.

[Board Staff 16]'s account of that transition begins with a distinction between two supervisory models.

Community-bank supervision generally operates through periodic examinations supported by a strong 'surveillance' program. Supervisors examine the bank at a point in time, monitor its financial data between examinations, and increase the intensity of supervision when surveillance reveals a problem or an unusual development. Typically, the Board becomes involved only when a case presents a novel policy question. The model is designed, in [Board Staff 16]'s description, to "jump" when a bank encounters difficulty.

Large-bank supervision operates differently. It is continuous, undertaken by a Dedicated Supervisory Team ("DST") through targeted examinations and continuous-monitoring events. It is supplemented by national programs, horizontal examinations, stress testing, capital and liquidity reviews, and recovery-and-resolution planning. Rather than waiting for a problem and responding to it, the LFBO program is intended to keep important institutions from getting into trouble in the first place.

> **"It's more muddled in the middle.**
>
> [Board Staff 16]

[Board Staff 16] regarded both models as defensible. The difficulty arose between them. "It's more muddled in the middle," he said. And, in [Board Staff 16]'s view, SVB crossed from one supervisory model into the other at precisely the wrong time. It ceased to benefit from an RBO program designed to react rapidly to an emerging financial problem, but had not spent sufficient time in the LFBO program to receive the full benefit of continuous large-bank supervision and its supporting national programs. "I think they got the worst of both worlds," he said.

[Board Staff 16] sought to demonstrate the point through the Federal Reserve's treatment of a much smaller state-member bank. In the second quarter of 2022, that institution became the first state-member bank [Board Staff 16] had encountered with negative tangible common equity. The development was novel, but its significance was immediately apparent to the CBO program and the responsible Reserve Bank.

Quarter-end data for that institution became available after June 2022. By the middle of August, examiners were inside the bank conducting a targeted examination. They downgraded its liquidity and sensitivity-to-market-risk ratings, downgraded its composite rating, and issued three MRAs addressing liquidity, capital planning, and interest-rate-risk management.

The response did not end with the individual institution. [Board Staff 16] and his colleagues understood that it would not be the last bank placed under pressure by rising rates and unrealized securities losses.

Working with Governor Michelle Bowman, who chaired the Board's Subcommittee on Smaller Regional and Community Banking, [Board Staff 16] detailed how his team developed guidance applicable to similarly situated CBOs and RBOs. The resulting materials included an examiner guide, decision tree, job aid, internal workforce communications, and public outreach to bankers. The guide was provided to examiners during the fall of 2022 and published on the Federal Reserve's website in December — months before SVB failed.

"With the benefit of hindsight, we got it right," [Board Staff 16] said of the supervisory response to the redacted institution. For him, that example refuted any unqualified assertion that the Federal Reserve as a whole had failed to recognize interest-rate risk or was institutionally incapable of acting with speed and force. The record would show, he maintained, that "at least within parts of the organization, we mostly got it right."

[Board Staff 16] was not asserting that the Federal Reserve's supervision of SVB succeeded. He was asserting that relevant knowledge and an effective supervisory response existed elsewhere within the Federal Reserve System before SVB failed. The question, then, was why that learning did not travel across the institution and inform the supervision of a bank exposed to the same rate cycle on a much larger scale.

"What broke down in our Board structure that one Governor gets it right and that learning doesn't go through the organization?" [Board Staff 16] asked. "I think that's a hell of a question." [Board Staff 16] considered SVB's transition from RBO to LFBO central to the answer. "A bad handoff is absolutely part of the story here," he said.

> **"A bad handoff is absolutely part of the story here.**
>
> [Board Staff 16]

SVB's transition was novel: it was the first domestic bank to cross into the LFBO portfolio from the RBO portfolio after the relevant asset threshold [$100 billion] had been established. Yet [Board Staff 16] did not believe that the Board had developed an adequate plan for managing that transition or articulating how the two supervisory programs should work together. "There's no question it was botched," he said. "I'm not saying we actually did it well. I don't think that's defensible."

He identified the articulation of such a transition process as a Board responsibility. A Reserve Bank could determine how to staff the supervisory team, but the Board was responsible for defining the supervisory programs and establishing how an institution should pass between them.

[Board Staff 16] acknowledged that rare events do not always warrant detailed procedural manuals. SVB's transition nevertheless required "a good plan," he said, and "there was not a good plan here."

LFBO, moreover, was contending with substantial competing demands. Around the same period, it was absorbing Deutsche Bank, Credit Suisse, and UBS after those institutions were transferred out of the Federal Reserve's most intensive supervisory program [LISCC, now GSIB]. SVB, though large by regional-bank standards, appeared comparatively small against those foreign institutions. [Board Staff 16] believed that this contributed to a natural prioritization problem: LFBO had “bigger fish to fry.”

The result, as [Board Staff 16] described it, was more than an imperfect administrative transfer. It created a gap between two different theories of supervision.

SVB moved from a surveillance-based program designed to “jump when you see a problem” into a continuous-supervision program intended to prevent problems but, in his characterization, less well designed to pivot abruptly when a financial exposure crystallized. At the same time, the national programs that were supposed to reinforce large-bank supervision had not yet fully reached the institution.

“They neither got, ‘Jump when you see a problem,’ nor did they get the time in the program to improve their risk management,” [Board Staff 16] said. This account aligns with Watson’s description of an institution caught between supervisory regimes, but [Board Staff 16]’s emphasis is different.

Watson described the difficulty SVB experienced in attempting to build large-bank governance and risk-management capabilities while supervisory expectations remained unclear. [Board Staff 16] described the corresponding problem within the Federal Reserve: the supervisory system itself had not determined how to preserve the responsiveness of the RBO program while introducing the preventive, risk-management orientation of LFBO supervision.[126]

[Board Staff 16] did not offer the transition as a complete explanation or as an absolution of the RBO program. He emphasized that the chronology of SVB’s financial-risk accumulation remained insufficiently clear to him. The bank’s reliance upon uninsured deposits had long produced substantial liquidity risk. But [Board Staff 16] did not know when SVB materially lengthened the duration of its securities portfolio or when it removed the hedges that might have reduced its exposure.

“Did that happen when it was in an RBO and we missed it, or did that happen when it was in LFBO?” he asked. “I don’t know.” He believed those events probably occurred after the transfer, but could not assert that as fact. This uncertainty places an important limit upon [Board Staff 16]’s counterfactual claim that RBO supervisors would have acted more decisively had SVB remained in that portfolio.

The response to the community bank [Board Staff 16] offered to illustrate his team’s typical efficacy suggests that the CBO and RBO programs were capable of recognizing and responding to unrealized losses once they appeared in tangible equity. It does not establish that those programs would necessarily have identified the particular combination of duration risk and uninsured funding at SVB before that exposure became visible through such losses.

[Board Staff 16] was more confident, however, about the point at which the risk was realized. Once the Federal Reserve began raising interest rates in 2022, the effect upon long-duration securities portfolios

[126] Appendix A-16, Mark Watson, 11 June 2026.

became observable. “You couldn’t miss the realization of interest-rate risk in that rate cycle,” he said. “How the hell could you miss that?”

Yet, after reviewing the supervisory materials released with the Barr and OIG reports, [Board Staff 16] did not find evidence that SVB’s DST responded to that development with the urgency he would have expected. He carefully limited this judgment to the team responsible for SVB, rather than extending it categorically to LFBO as a whole.

“I believe the risk was missed,” he said. “I had nothing to do with its [SVB] supervision in its last two years. So, everything I know about the last two years has come from the Barr Report or the OIG report or other after action.” Even with that limitation, [Board Staff 16] continued: “I haven’t seen in the supervisory record that was released, evidence that they jumped, that they understood the threat the bank was under.”

The problem was one of prioritization.

The LFBO team identified numerous deficiencies and issued a substantial number of supervisory findings, but [Board Staff 16] did not believe those actions demonstrated an understanding of the financial threat confronting SVB.[127] His observation parallels [Board Staff 15]’s concern that supervisors devoted disproportionate attention to process, governance, and controls while the combination of interest-rate and liquidity risk capable of destroying SVB remained inadequately addressed.[128]

[Board Staff 16] also disputed the Barr Report’s suggestion that the RBO program had simply missed SVB’s rapid growth. On semantic grounds, he drew a distinction between the supervisory program established by the Board and its execution by the San Francisco exam team. RBO did not itself examine SVB, he explained. Rather, it articulated the program under which FRBSF did so.

More substantively, [Board Staff 16] reported that the final examination conducted while SVB remained in the RBO portfolio focused on information technology, and that did not appear among the materials publicly released with the Barr Report. That examination produced a recommendation for an enforcement action, [Board Staff 16] said, and SVB had been informed that the proposed action was based upon the conclusion that it had outgrown its systems.

[Board Staff 16] allowed that supervisors might have acted earlier — at $70 billion in assets, perhaps, rather than as SVB approached $100 billion. But he maintained that the record did not support an unqualified assertion that SVB’s growth itself had gone unnoticed. Supervisors had recognized that SVB’s infrastructure was failing to keep pace. What remained insufficiently appreciated was the financial vulnerability accumulating alongside those operational deficiencies.

[Board Staff 16] identified one further institutional development that may have impaired the Federal Reserve’s ability to translate its broader understanding of interest-rate risk into supervisory action.

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[127] Appendix A-6, LFBO Leadership, 3 June 2026.

[128] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

For many years, the Board's Risk function had included a Market and Liquidity Risk section whose remit expressly encompassed interest-rate risk. According to [Board Staff 16], that section was dissolved in August 2022, at the same time rising rates were making unrealized securities losses increasingly consequential.

"The team whose job it is to be all over interest-rate risk is going to be dissolved at the very moment where this risk is being realized?!" he said.

[Board Staff 16]'s account therefore carries [Board Staff 3]'s testimony forward. [Board Staff 3] described personnel within Risk and Surveillance who identified the danger presented by unrealized losses but could not compel the responsible portfolio to act. [Board Staff 16] described an additional institutional divide: the CBO and RBO programs recognized the effect of rising rates upon tangible equity, acted rapidly at other institutions, and developed a programmatic response, but that response did not become an institution-wide supervisory practice applied to SVB.[129]

[Board Staff 16]'s testimony does not support a simple conclusion that one portfolio understood the risk while another did not. He acknowledged that the timing of SVB's risk accumulation remains uncertain, that RBO supervision could have been better, and that the large-bank portfolio team may be able to identify other institutions at which they responded more effectively than appears evident at SVB. Rather, [Board Staff 16]'s broader point was that knowledge present within one part of the Federal Reserve did not reliably migrate to another part confronting a substantially similar set of concerns.

Nor did [Board Staff 16] contend that his criticism represented the prevailing view within the Federal Reserve. Asked how his colleagues would assess the Barr Report, he answered that most would consider it substantially correct and would genuinely hold that view. His own assessment was more critical, but he took care not to convert institutional disagreement into an allegation of complacency.

"I believe everybody acted with good intentions," [Board Staff 16] said. "I believe everybody acted ethically." He disagreed with colleagues and considered some of the resulting narratives mistaken, but emphasized that "we can disagree and still all be ethical."

That qualification is consistent with the purpose of this Inquiry. The significance of [Board Staff 16]'s account does not depend upon attributing bad faith to those responsible for SVB's supervision. It lies in identifying a supervisory system capable of producing the relevant insight and acting upon it in one portfolio, while failing to ensure that the same insight informed the supervision of SVB.

[Board Staff 16] closed our interview discussion by returning to the chronology he regarded as essential. "I hope you guys [have] nailed down a better timeline than I've seen so far," he said. "I really would like to know when SVB loaded up on the risk. I know when the risk was realized."

[129] Appendix A-3, [Board Staff 3], 15 June 2026.

That distinction supplies an appropriate evidentiary boundary for his testimony. [Board Staff 16]'s comparison with the redacted community bank demonstrates that some Federal Reserve supervisors recognized the implications of rising rates and unrealized securities losses by the summer of 2022. It does not, by itself, establish precisely when the SVB supervisory team should have understood the bank's complete exposure.

That requires a reconstruction of when SVB accumulated its duration risk, when it reduced its hedges, when the resulting losses became visible, and what each component of the Federal Reserve knew at each stage. Subject to that further examination, [Board Staff 16]'s testimony suggests that the Barr Report's finding should be framed more precisely.

The Federal Reserve did not uniformly fail to appreciate the relevant financial vulnerability at SVB and other banks in the 2022/2023 timeframe. Parts of the organization appreciated important elements of it, developed a supervisory response, and acted upon that response at other institutions. What failed was the institutional transmission and application of that knowledge across supervisory portfolios and through a poorly managed transition between them.

The question is therefore not only why the supervisors assigned to SVB failed to appreciate the bank's vulnerabilities. It is why a supervisory institution that had already recognized the consequences of rising rates elsewhere did not ensure that the same insight governed its treatment of SVB. In [Board Staff 16]'s words, the handoff from one style of supervision to the other was "about as bad as we could have done it."

Interview with [Board Staff 5]

[Board Staff 16]'s account describes an institution that had recognized the consequences of rising rates elsewhere, but failed to ensure that the same insight governed its treatment of SVB. An interview with **[Board Staff 5]**, permits us to follow that failure into the enforcement process.

Starling interviewed [Board Staff 5] on June 3rd 2026.[130] [Board Staff 5]'s principal responsibility is the Federal Reserve's Enforcement program as it relates to financial institutions. He does not scope or conduct examinations. Rather, Enforcement personnel become involved after examiners identify a problem they believe may warrant an enforcement action — often because the institution has failed to remediate a previously identified deficiency, or because a newly identified problem is too serious to be addressed through ordinary supervisory tools.

"Enforcement is really an escalation of the supervisory process," [Board Staff 5] explained. If an institution does not understand what supervisors require, cannot satisfy those requirements, or reaches a point at which the ordinary supervisory process has reached its limit, "that's when you would look to Enforcement."

[130] Appendix A-5, [Board Staff 5], 3 June 2026.

Enforcement actions are legal instruments capable of restraining a bank's activities and affecting its substantive rights. They must rest upon a supervisory record sufficient to satisfy legal standards more exacting than those applicable to an MRA or other examination finding. If the institution refuses to consent, the Federal Reserve must be prepared to prove its case through an administrative proceeding.

For that reason, Legal cannot responsibly convert every supervisory concern into an enforcement action. The examination report and supporting work-papers must identify the problem clearly and demonstrate how SVB's response has been deficient. The enforcement document must then prescribe "clear and concrete steps" by which the institution can achieve remediation.

[Board Staff 5] cautioned particularly against provisions so indefinite that an institution cannot understand what it must do to obtain release from the action. Legal seeks to avoid requirements drafted in a manner that causes an action to remain "evergreen" — open indefinitely because neither the bank nor its supervisors can identify an objective path to completion.

These requirements create what [Board Staff 5] described as "a natural tension between how fast an examiner can run up that ladder and what the due process and legal requirements are." That tension is not evidence of dysfunction. It reflects the care required when the government seeks to replace supervisory persuasion with a legally enforceable command.

The enforcement process [Board Staff 5] described proceeds in five principal stages.

First, the Reserve Bank submits a recommendation after completing and internally reviewing its examination work. Second, Legal reviews the recommendation and underlying record, determines whether the applicable legal standard has been met, and prepares a draft action. Third, the Reserve Bank considers and iterates upon that draft, often consulting Board supervisory staff, state regulators, or other agencies. Fourth, Legal and Supervision obtain the required internal approvals. Fifth, the proposed action is presented to the financial institution for consent.

At SVB, a proposed Memorandum of Understanding ("MOU"), initiated in 2022, moved through the first two stages of the process described by [Board Staff 5] without unusual delay.[131]

The FRBSF submitted its recommendation in July 2022. The proposed MOU initially focused upon Board oversight and enterprise risk management. At the request of supervisory portfolio staff in Washington, [Board Staff 5] explained, the Reserve Bank added a proposed provision addressing liquidity-risk management, an area in which SVB had already received an MRA.

By August — approximately one month after receiving the recommendation — Legal had completed its review and returned to the FRBSF an MOU that [Board Staff 5] believed satisfied the applicable legal standard. The draft covered Board oversight, enterprise risk management and liquidity-risk management. It was, in [Board Staff 5]'s description, an action Legal was prepared to approve.

[131] Note: an MOU is an informal enforcement action that is generally not disclosed to the public. The primary difference between an MOU and a Consent Order is that the latter is a formal enforcement action disclosed to the public (See Addendum Item 1 — Glossary).

"At that point, in theory, they could have just said, 'Okay, thank you for this action,'" [Board Staff 5] explained. Had the Reserve Bank accepted the draft and moved it through the remaining stages, an MOU addressing liquidity-risk management could have been in place during the fourth quarter of 2022.

The Reserve Bank chose a different course, however. As [Board Staff 5] explained, the FRBSF had additional examinations planned concerning subjects largely unrelated to material financial risk, and preferred to complete that work before proceeding with a comprehensive enforcement action. It also preferred not to include the liquidity provision at that stage, because it expected to conduct a targeted liquidity examination. The plan was to complete the additional work contemplated by the FRBSF over approximately two months, revise the enforcement recommendation accordingly, and return to progressing the MOU.

[Board Staff 5] did not characterize that decision as inherently unreasonable. Examiners commonly prefer a single enforcement action addressing a collection of findings to a succession of narrower actions. The forthcoming examinations were expected to conclude relatively quickly, and their results could then be incorporated into a more comprehensive instrument. But that preference involved a consequential trade-off. "Here they could have proceeded just with the liquidity, a narrower MOU," [Board Staff 5] said, "but they made the judgment that they wanted to wait and include this other work."

Discussions resumed between December 2022 and early March 2023, as the additional examination results were folded into a revised MOU. By then, however, the process had encountered new difficulties.

The Reserve Bank had sought the addition of three provisions addressing cyber and information-technology matters. [Board Staff 5] described the proposed provisions as duplicative and insufficiently specific. They focused upon requiring SVB to identify the root causes of deficiencies, rather than prescribing the concrete measures necessary to remediate them. The proposed language also appeared intended to provide leverage over problems supervisors anticipated finding through examinations that had not yet occurred.

From Legal's perspective, these features of the proposed MOU raised fairness and due-process concerns. An enforcement action could not properly be drafted in so broad a manner that it (1) covered unidentified future deficiencies, or (2) left the institution incapable of determining the actions needed to satisfy its obligations to supervisors. A separate question concerning whether the state regulator possessed authority over SVB's holding company also remained unresolved.

These were not procedural formalities manufactured by Legal. [Board Staff 5] emphasized that the lawyers responsible for the matter were attempting to ensure that the MOU rested upon an adequate record and gave the institution a meaningful path to remediation. Legal was not declining to enforce a clearly articulated financial-risk requirement. It was attempting to make proposed non-financial provisions sufficiently precise to be enforceable.

The liquidity provision, meanwhile, remained exactly as Legal had drafted it in August. "For clarity," [Board Staff 5] said, "the liquidity-risk management provision did not change." The targeted examination for which the action had been postponed therefore did not produce a materially different liquidity requirement.

More consequentially, neither version of the MOU addressed interest-rate risk. "Neither the first recommendation nor the revised recommendation had any mention of interest-rate risk," [Board Staff 5] said.

> **As of February 2023, no one had made a recommendation to include any type of interest-rate risk remediation in an enforcement action.**
>
> [Board Staff 5]

That omission is striking when placed alongside the testimony of [Board Staff 3] and [Board Staff 16]. [Board Staff 3] recalled Risk warning that unrealized securities losses had become too large to discount and selecting SVB for a briefing to the Governors approximately one month before SVB failed. [Board Staff 16] described the broader Federal Reserve System as recognizing by the summer of 2022 that rising rates were producing a significant threat to institutions carrying large unrealized losses. Yet none of that analysis resulted in a recommendation that SVB's interest-rate exposure be addressed through the enforcement action then under development.[132]

[Board Staff 5] explained that Enforcement personnel generally believe an action should reflect the most serious problem confronting an institution at a given point in time. But "as of February 2023, no one had made a recommendation to include any type of interest-rate risk remediation in an enforcement action."

The action was intended to embody the deficiencies supervisors considered sufficiently serious, materially developed, and sufficient to warrant coercive remediation. Its contents therefore offer evidence not merely of what supervisors had observed, but of what the supervisory process had elevated into an authoritative institutional demand.

Interest-rate risk never reached that point. "If you could go back in the time machine and you could take that first MOU and you could have everybody sign it," [Board Staff 5] observed, "You would not have addressed one of the major problems of the firm."

At first appearance, the unfinished MOU might seem principally to illustrate the Barr Report's next finding: that supervisors failed to act with sufficient force and speed after identifying problems. [Board Staff 5]'s account places the failure further upstream. The principal obstacle was not the absence of an accelerated enforcement process or an inability on Legal's part to produce an approvable action. It was

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[132] Note: SVB's HTM bond portfolio, which accounted for about half its assets, had a weighted average duration between 4.6 and 6.2 during mid-2021 to year-end 2022. A duration of 6.2 means that for every 1% increase in interest rates, the value of the bond portfolio would fall by approximately 6.2%, meaning SVB was extremely sensitive to increases in interest rates (See Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data).

that the supervisory recommendation never centered upon the material financial risk capable of toppling SVB.

The Federal Reserve had established a FastTrack procedure in 2021 for straightforward enforcement matters, [Board Staff 5] explained, with the objective of completing the first four stages within 50 days. More complex matters could still be designated as high priorities. Legal and S&R personnel met twice each month — once at staff level and once with senior officers — to review the enforcement pipeline, identify obstacles and determine which cases required greater urgency.

But, during late 2022 and early 2023, [Board Staff 5] did not believe that the SVB MOU was regarded as presenting an intractable problem requiring escalation to the Vice Chair for Supervision or another Board principal. The process appeared to be proceeding through its ordinary stages. Its delay was not interpreted as dangerous because the action itself was not understood as a response to a financial threat on the verge of becoming acute.

Legal, moreover, could not substitute its judgment concerning SVB's condition for that of the supervisors. "We are not the examiners," [Board Staff 5] said. "We are not going to say to a Reserve Bank, 'You must go forward with this enforcement action tomorrow.'" Supervisors retained substantial discretion to determine whether to proceed, what deficiencies the action should cover, and how its provisions should be framed. Legal's role was to help produce an instrument that lawfully achieved the supervisory objective presented to it.

[Board Staff 5] therefore rejected the proposition that SVB's unfinished MOU should be understood primarily as a failure of the enforcement machinery. "Again, I would say that the issue is not an enforcement process issue in so much as it's the inability or the failure to prioritize material financial risk," he said.

"The back and forth is not about interest-rate risk," [Board Staff 5] continued. "It's not about liquidity risk with the exception that they want to do another target exam in two months. It's about how to describe and how to address cyber/IT issues." That distinction closely parallels the concerns expressed by [Board Staff 15]. Supervisors were not inactive. They were examining SVB, producing findings, considering enforcement, and attempting to construct a comprehensive response. But the concentration of supervisory and legal effort did not correspond to the hierarchy of risks capable of causing SVB to fail.

The comparison is revealing because the enforcement process required supervisors to choose. An MRA could identify one deficiency among many; an enforcement recommendation required a more deliberate judgment about which failures warranted the government's coercive authority.

Yet, even at that stage, the proposed action remained concentrated upon Board oversight, broad enterprise-risk-management concerns, cyber and IT deficiencies, and a process-oriented liquidity provision. It did not require SVB to reduce its duration exposure, restore its hedges, restructure its securities portfolio, or otherwise remediate the interest-rate risk embedded in its balance sheet.

Even an action addressing liquidity and interest-rate risk in late 2022 would have required time to implement, [Board Staff 5] noted. The run at SVB was so severe, he said, that he did not know what liquidity plan could have enabled SVB to withstand it. Nor could he identify a legal provision that, imposed only months before the failure, would necessarily have prevented the resulting deposit flight.

"If they had gone back and spotted interest-rate risk earlier and addressed it sooner, and forced the bank to address the duration of its portfolios, some months or years before this, maybe, okay, then that's a different outcome," [Board Staff 5] said. "But that was never the recommendation."

That qualification prevents the MOU from being treated as a lost last-minute opportunity that would certainly have saved SVB. The evidentiary significance of the episode is different. It shows that, even by February 2023, the Federal Reserve's Enforcement channel had not received a supervisory recommendation reflecting the principal financial vulnerability later identified as central to SVB's failure.

[Board Staff 5]'s account therefore connects the testimony of [Board Staff 15], [Board Staff 3] and [Board Staff 16].

[Board Staff 15] described supervisors who saw the individual components of SVB's risk profile without understanding their toxic interaction.[133] [Board Staff 3] described Risk personnel who assigned greater significance to the unrealized losses but lacked authority to compel the responsible portfolio to act.[134] [Board Staff 16] described a programmatic understanding of the interest-rate threat that did not travel effectively across supervisory portfolios.[135] [Board Staff 5] demonstrates the consequence at the point where supervision might have become enforceable: the interest-rate risk was absent from the action altogether.

The MOU chronology thus sits at the boundary between appreciation and action. Supervisors cannot act forcefully upon a risk they have not translated into a clear institutional judgment, supported by an adequate record and expressed through concrete remedial demands. The delay in completing the MOU matters, but its substance matters more. A faster process would simply have produced an earlier action that would still have failed to address one of SVB's principal financial vulnerabilities.

The more probative question is therefore not merely why the MOU remained incomplete when SVB failed. It is why, after supervisors elsewhere in the Federal Reserve System had recognized the implications of rising rates, after Risk had begun escalating its concern, and after SVB had been selected to illustrate that danger to the Governors, no recommendation was made to use the Federal Reserve's enforcement authority to require SVB to address its interest-rate exposure.

[133] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.
[134] Appendix A-3, [Board Staff 3], 15 June 2026.
[135] Appendix A-14, [Board Staff 16], 9 June 2026.

On [Board Staff 5]'s account, this was not principally a failure to wield an available enforcement tool. The tool was being prepared for the problems supervisors chose to place within it. The deeper failure lay in what they chose to leave out.

External analysis — prepared for Starling by Charles River Associates

The preceding accounts raise a further question. Federal Reserve supervisors enjoyed access to Confidential Supervisory Information unavailable to investors, depositors, and other market participants. They were also positioned to compare SVB with peer institutions through the Federal Reserve's horizontal view of the banking system. What, then, could have been discerned by those who possessed neither advantage?

To explore that question, Starling commissioned Charles River Associates ("CRA") to examine market data regarding SVB through independent research using exclusively publicly available information.[136]

CRA's analytical report, attached hereto, does not suggest that SVB's failure was obvious, or that its precise timing and immediate mechanism could have been predicted from public data alone. To the contrary, the CRA report offers an important qualification: "No single indicator, viewed in isolation, reliably singled out SVB as the large bank most likely to fail."

Conventional failure-prediction models would not have prioritized SVB, even when supplemented with several balance-sheet measures on which SVB appeared comparatively weak. "Thus, the weakness," CRA concludes, "was due to a combination of factors." Regarding unrealized losses, SVB was clearly an outlier by the first quarter of 2022 when SVB lost half its capital on a fair-value basis. The full combination of factors was substantially visible by the third quarter of 2022.

SVB's extraordinary growth during 2020 and 2021 had produced a balance sheet in which highly mobile deposits funded an unusually large portfolio of long-duration securities. By the end of 2022, SVB held approximately $120 billion in fixed-income securities, including approximately $91 billion classified as held to maturity. At the same time, 93.9 percent of its domestic deposits were uninsured. More than 87 percent of SVB's deposits had been held in money-market deposit accounts since 2001 — a longstanding feature of SVB's funding model that placed it closer, in CRA's assessment, to a specialized cash-management institution than to a typical regional commercial bank.

The concentration extended beyond the formal classification of those deposits. SVB's customers were drawn predominantly from a common venture-capital and technology ecosystem, shared exposure to the same funding cycle, and communicated through closely connected professional networks.

The resulting franchise was largely uninsured, concentrated, and operationally mobile, making it unusually susceptible to a common shift in confidence.

[136] Addendum Item 5, *Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data*, 29 July 2026.

The Federal Reserve's rapid tightening of monetary policy applied pressure to both sides of SVB's balance sheet, CRA finds. The market value of SVB's long-duration securities fell as interest rates rose. Simultaneously, venture funding contracted sharply, requiring many of SVB's customers to draw down deposits to finance continuing operations. SVB's deposits declined in each of the final three quarters of 2022 — by 4.3 percent, 5.5 percent, and 2.3 percent, respectively.

The effect on SVB's economic capital was visible in its public filings. Based on its March 31st 2022 Call Report, SVB's unrealized securities losses already equaled more than 50 percent of its CET1 capital by the end of the first quarter of 2022. CRA calculates that SVB's unrealized securities losses equaled 80.4 percent of SVB's CET1 capital by the end of the second quarter of 2022, exceeded its CET1 capital in the third quarter, and reached approximately 104 percent of CET1 capital by year-end.

Among the 34 banks with $100 billion in total assets or more on December 31st 2022, SVB ranked third by the ratio of unrealized securities losses to equity, CRA observes. SVB remained adequately capitalized under the applicable regulatory measures only because most of these unrealized losses were excluded from regulatory capital. However, if deposit outflows forced the sale of securities, losses treated as unrealized for accounting purposes would quickly become real.

This does not mean that public-market information furnished a simple early-warning signal, although it may have been the reason SVBFG's share price declined by about 65 percent from its peak in November 2021 until March 8th 2023.

And CRA's modeling demonstrates why it did not. SVB's vulnerability depended upon the interaction of unrealized securities losses, a concentrated uninsured funding base, the operational mobility and interconnectedness of its depositors, and SVB's ability to monetize collateral quickly under stress. Several of those characteristics are not fully captured in standard regulatory ratios.

CRA therefore cautions that analytical models must be understood as "complements to, not substitutes for, supervisory judgment."

That qualification makes the informational advantage enjoyed by supervisors more consequential. Market participants could observe the duration exposure, the decline in deposits, the concentration of uninsured funding, and the mounting unrealized losses. They could not see that SVB had repeatedly failed its internal liquidity stress tests, had not completed planned expansions of its repurchase capacity, had not conducted needed test transactions, and had not operationalized sufficient access to the Federal Reserve's discount window.

Those matters were known, however, or at least available, to supervisors. Nor could an individual market participant readily compare SVB's internal practices with those of peer institutions, as the Federal Reserve could through its horizontal perspective.

The significance of the publicly observable evidence became unmistakable on March 8th 2023. SVB Financial Group ("SVBFG") announced that it had sold substantially all of its available-for-sale securities, realizing an after-tax loss of approximately $1.8 billion; that it intended to double its term borrowings from approximately $15 billion to $30 billion; and that it would seek $2.25 billion in new equity capital. For sophisticated investors and corporate treasury managers, the realized loss on the available-for-sale portfolio supplied a readily legible indication of the losses embedded in the much larger held-to-maturity portfolio.

SVBFG's share price fell approximately 60 percent the following day — after falling about 65 percent from its peak in November 2021 until March 8th 2023 — while warnings propagated rapidly through private communications networks connecting many of SVB's depositors.

CRA's analysis therefore challenges an account in which social media or digital banking created the crisis. Those mechanisms may have accelerated the transmission of information and the movement of funds, but they did not create the financial condition to which depositors reacted. As CRA states:

> "The depositor run [at SVB] was the consequence. The interest-rate risk on the securities portfolio, amplified by a concentrated and volatile deposit base, declining VC funding, and duration risk, was the cause. All were visible, and none were addressed in time."

CRA's analysis does not establish that market participants — or supervisors — should have anticipated the precise catalyst, timing, or extraordinary velocity of the run. It does, however, establish that SVB's underlying fragility was knowable from public information well before March 2023.

> **SVB's vulnerability was not invisible; it just wasn't attended to by supervisors with sufficient alacrity.**

For supervisors possessing substantially more information, the central problem was therefore not the absence of risk signals. It was the failure to assemble those signals into a sufficiently urgent assessment of the threat they presented in combination. Viewed in that light, the exclusion of interest-rate risk from the enforcement action [Board Staff 5] described becomes still more consequential.

SVB's vulnerability was not invisible; it just wasn't attended to by supervisors with sufficient alacrity.

4. "They did not take sufficient steps"

In its April 2023 "Preliminary Review of Agency Actions Related to March 2023 Bank Failures," the U.S. GAO observed:

> *In the years prior to 2023, FRBSF and FDIC identified liquidity and management risks at SVB and Signature Bank — key drivers of the banks' failures. However, neither regulator's actions resulted in management sufficiently mitigating the risks that contributed to the banks' failures. As we noted in a 2015 GAO report on bank failures, although regulators often identified risky practices early in previous banking crises, the regulatory process was not always effective or timely in correcting the underlying problems before the banks failed.*[137]

During its May 11th 2023 "Testimony Before the Subcommittee on Oversight and Investigations, Committee on Financial Services, House of Representatives," the GAO offered:

> *Although Federal Reserve staff stated that the Federal Reserve's supervisory actions compelled SVB to take steps including replacing the board Chair, Chief Risk Officer, and Treasurer and revising its incentive compensation program to incorporate risk management as a formal assessment criteria [sic], its supervisory actions were inadequate given the bank's known liquidity and management deficiencies.*[138]

Furthermore, FRBSF's actions lacked urgency. For example, FRBSF did not give Board enforcement the green light to issue a single enforcement action, despite SVB's serious liquidity and management issues, before SVB's failure.

As of this writing, Starling has had insufficient time to explore this matter as fully as we intend.

That said, we note that we have to date conducted interviews with almost all FRBSF examiners who remain currently employed by the Federal Reserve System and who formed part of the Dedicated Supervisory Team that oversaw SVB, during its time under the purview of the RBO supervisory portfolio, during its transition to the LFBO portfolio, and thereafter (see page 128). Those interviews do not form part of the discussion captured in this Preliminary Report but will feature in a subsequent Interim Report.

All three U.S. government postmortems (Barr, GAO, OIG) agree that examiners saw liquidity and risk-management weaknesses years before failure, as early as 2018, and yet failed to downgrade SVB's ratings. The Barr Report notes that SVB's ratings "did not fully reflect the vulnerabilities," observing that legacy "satisfactory" ratings in the RBO portfolio created baseline inertia that made subsequent ratings

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[137] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 17.

[138] U.S. Government Accountability Office, *Testimony Before the Subcommittee on Oversight and Investigations, Committee on Financial Services, House of Representatives*, 5.

downgrades difficult in practice.[139] The OIG states directly that SVB's "ratings at the time of [its] failure did not align with the bank's true condition."[140]

And these postmortems note that this ratings lag was mirrored by a corresponding delay in escalating formal enforcement actions, as discussed above. The Barr Report notes that supervisors identified interest-rate-risk deficiencies in its 2020, 2021, and 2022 CAMELS exams, but that these concerns were only communicated via informal written advisories or verbal observations rather than through formal supervisory findings.[141] And both the Barr Report and the GAO Review observe that FRBSF and the Board of Governors began working on an informal, nonpublic Memorandum of Understanding ("MOU") in August 2022, but the enforcement action was never finalized before SVB failed in March 2023.[142, 143]

The question that remains for Starling to explore further is why supervisors failed to act more decisively.

Interview with [Board Staff 17]

That exploration must begin with the division of responsibility between Federal Reserve Board personnel and the Reserve Bank examiners responsible for an individual institution.

Starling discussed this in an interview with **[Board Staff 17]** on June 17th 2026.[144]

For SVB, the principal conduit between the FRBSF and [Board Staff 17] was the RBO Central Point of Contact ("CPC"), [FRBSF 8], who coordinated information regarding examinations, supervisory findings, and ratings and communicated the resulting judgments to [Board Staff 17]. She, in turn, reported through her manager, and upward through the RBO supervisory hierarchy.

[Board Staff 17] described the expected information flow as operating in both directions. Reserve Bank examiners were responsible for identifying what they observed "on the frontline." Board analysts were expected to review financial information and supervisory products to determine whether the examiners had missed anything and whether the treatment of a particular institution was consistent with that afforded similarly situated firms elsewhere in the System.

In practice, however, the idiosyncratic supervisory priorities for an institution ordinarily originated with the responsible Reserve Bank. The Board established the broader RBO supervisory program — including metrics affecting examination hours, depth and scope — but the FRBSF developed SVB's annual supervisory plan, in accordance with those Board-established parameters, its firm-specific knowledge, offsite monitoring, management information, continuous-monitoring activities and meetings with bank personnel.

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[139] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 6.

[140] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 29.

[141] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 65.

[142] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 43.

[143] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 22.

[144] Appendix A-15, [Board Staff 17], 17 June 2026.

When asked where responsibility for prioritizing competing firm-specific concerns principally resided, [Board Staff 17] answered: "I think I would want to say it's primarily the Reserve Bank." [Board Staff 17]'s own concerns at the Board were consequently driven largely by findings the FRBSF brought forward. In SVB's case, she recalled, the Board's principal questions concerned whether findings and ratings produced through different supervisory exercises were mutually consistent.

The Board was positioned to challenge a proposed rating or supervisory product, but [Board Staff 17] did not recall the Board originating an independent, institution-specific financial-risk concern and directing the FRBSF to pursue it while SVB remained within the RBO portfolio. That provides important context for assessing the failure to act with sufficient force or speed.

"I know for a fact a lot of pertinent matters were pushed way higher up, because SVB wasn't the typical case.

[Board Staff 17]

A risk that did not acquire sufficient salience within the Reserve Bank's firm-specific supervisory plan might not reach the Board analyst in a form calculated to produce escalation. Conversely, a Board analyst reviewing individual supervisory products for consistency might identify tensions among ratings and findings without undertaking an independent reconstruction of the bank's overall vulnerability.

When [Board Staff 17] returned to the RBO portfolio, in January 2021, two principal supervisory exercises involving SVB came before her: an information-technology examination and the annual full-scope examination assigning SVB's CAMELS ratings, together with the corresponding holding-company assessment. Those examinations — and the proposed supervisory action arising from the IT work — received substantial attention within Board supervision.

SVB was not, [Board Staff 17] emphasized, "the typical bank." Its rapid growth had startled her when she returned from leave. SVB possessed a distinctive business model centered upon venture-capital and private-equity clients, [Board Staff 17] noted. It was also approaching a consequential transition: SVB would be the first domestic institution to move from the RBO portfolio into LFBO supervision after the statutory threshold had been raised from $50 billion to $100 billion. That impending transfer caused significant matters involving SVB to move higher up through the Board's supervisory hierarchy than would ordinarily have occurred for an RBO institution.

"I know for a fact a lot of pertinent matters were pushed way higher up," [Board Staff 17] said, "because SVB wasn't the typical case."

The transition from RBO to LFBO nevertheless proceeded without a written playbook defining how an institution should move between the two supervisory programs. The absence of such guidance created a difficult prudential and legal tension, [Board Staff 17] recalled. Supervisors wanted to determine whether SVB was prepared for enhanced prudential standards, under LFBO supervision, but they were not supposed to impose large-bank requirements upon an institution before those standards became applicable.

“You want to make sure you don’t impose large bank standards on an RBO [institution],” [Board Staff 17] explained, “but people want to know if it’s ready.” The problem was that “the definition of readiness to transition could have been better defined” — or, she added, defined in writing at all.

Until the threshold was crossed, [Board Staff 17] understood that SVB was to be treated as an RBO bank. “You treat it as an RBO until it crosses the threshold,” she said. The result was the regulatory “cliff” described by Miller, Watson, and [Board Staff 16]: SVB was expected to prepare for a materially different supervisory regime without either SVB or its supervisors possessing a sufficiently clear account of what ‘readiness’ for that regime demanded of SVB.

The practical handoff reflected that ambiguity. RBO invited LFBO personnel to attend some of the final vettings of supervisory events, so that the receiving portfolio could understand what was occurring at SVB. But [Board Staff 17] herself lacked the large-bank subject-matter expertise necessary to answer questions SVB raised concerning Regulation YY and Enhanced Prudential Standards. She redirected those questions instead to the LFBO analyst, to whom we will turn next.

Even the underlying supervisory technology changed, [Board Staff 17] remarked. RBO maintained its supervisory record in one platform, while LFBO used another. [Board Staff 17] remembered the resulting transfer as “an unnecessarily really complex technology transition.” Asked whether the broader handoff had been messy, she replied that it “definitely could have been smoother.”

After SVB’s transfer, an RBO analyst and an LFBO analyst prepared a memorandum describing what a transition guide or playbook should contain and submitted it to the Deputy Director for Supervision. [Board Staff 17] did not recall who had commissioned that work. Its timing is nevertheless instructive: the effort to define the transition process followed the first institution’s passage through it.

[Board Staff 17] did not contend that this imperfect handoff caused SVB to fail. Approximately two years had passed between the transfer and the bank’s closure, and SVB had more than doubled in size after leaving the RBO portfolio. [Board Staff 17] therefore resisted drawing a direct causal line from transition difficulties to SVB’s failure. Her interview testimony supports the more limited conclusion that LFBO received a rapidly growing and unusually structured institution through a process in which “readiness” had not been clearly defined, while the respective responsibilities of the sending and receiving supervisory programs were still being worked out.

The proposed 2021 IT MOU, the same proposed enforcement action mentioned by [Board Staff 16], above, provides a more concrete example of how supervisory recognition, ratings and escalation interacted before the transfer.[145]

The FRBSF’s IT examination resulted in a composite IT rating of “3.” [Board Staff 17] explained that a rating at that level typically caused supervisors to consider an informal enforcement action,

[145] Appendix A-14, [Board Staff 16], 9 June 2026.

although such action was not required. The FRBSF concluded that an MOU addressing the IT deficiencies was warranted.

A full-scope CAMELS examination followed shortly thereafter. In that exercise, the FRBSF proposed leaving SVB's Management rating at "2," or Satisfactory. This produced an apparent inconsistency. If the IT deficiencies were serious enough to warrant an MOU, senior Board personnel questioned whether they should also affect the overall Management rating. If they were not sufficiently consequential to affect that rating, the case for an MOU appeared correspondingly less clear.

The matter reached senior personnel in both supervisory portfolios, including RBO head [Board Staff 16] and the LFBO head. [Board Staff 17] recalled a meeting at which Board and FRBSF personnel considered "why they thought the MOU was warranted, why IT was three-rated, but the CAMELS M should be two-rated."

According to [Board Staff 17], the FRBSF's position may have been that IT represented only one specialized area of SVB's operations and was not sufficiently significant to warrant downgrading the Management component, which reflected management across the institution as a whole. [Board Staff 17] did not attribute the opposing position to any particular person, but she identified the central issue plainly: "There was a disconnect between the fact that San Francisco wanted to propose an IT MOU, but still rate the management rating a two."

The FRBSF ultimately withdrew the proposed MOU. [Board Staff 17] believed that something had been transmitted formally through Legal channels, but she did not know the precise procedural history. She was careful not to suggest that Board Legal had rejected the action. Indeed, she clarified that it was someone within Supervision — not Legal — who had impressed upon her that such an action against a bank of SVB's size would require "very high standards."

Her understanding was that supervisors needed to "get your case all squared up, dot your I's and cross your T's, and make sure it's very well-supported." The outcome, however, was that SVB left the episode with a Less-than-Satisfactory IT rating, a Satisfactory Management rating, and no MOU.

This chronology supplies an early illustration of the ratings and enforcement dynamic later criticized by the Barr, GAO, and OIG postmortems. Board supervisors were not unaware of the IT deficiencies, nor were senior Board supervisory staff disengaged. The matter received scrutiny extending across the RBO and LFBO portfolios, but the supervisory process did not reconcile the recognized severity of the deficiencies with SVB's overall Management rating in a manner that supported escalation.

[Board Staff 17] shared with Starling that she found the Barr Report's criticism of RBO supervision painful but, in an important respect, fair. The RBO program, she said, should have been tailored not only by asset size but by institutional risk profile. "Not only was SVB a large bank, but its business model was unique," [Board Staff 17] said, "and those vulnerabilities could have been better appreciated in deriving the supervisory plan and when citing the supervisory finding." She added: "I think those criticisms were very fair, and I think that made it sting more."

[Board Staff 17] appeared circumspect when discussing the period after SVB entered LFBO. Once SVB left her portfolio, she stopped following its condition and concentrated upon her remaining institutions and program responsibilities. She was personally surprised by SVB's subsequent failure, but emphasized that SVB's condition when it failed was materially different from its condition while she was the responsible RBO analyst.

[Board Staff 17] therefore declined to judge whether LFBO examiners acted too slowly after discovering SVB's financial fragilities. She did not know when concerns were recognized, what discussions occurred before exam reports were completed, or how decisions concerning their timing were reached.

She did, however, offer an observation relevant to what the receiving portfolio should have examined. The effect of rising interest rates upon banks' securities portfolios was "very top of mind" at the Board during 2022, [Board Staff 17] offered. Unrealized losses were widespread, and determining their significance required an institution-specific inquiry. Supervisors needed to determine whether losses sat in available-for-sale or held-to-maturity portfolios and, most importantly, whether an institution might be forced to sell securities and recognize losses.

That assessment required a connection between market risk and funding risk. A held-to-maturity loss might remain unrealized if SVB could retain the security. It became dangerous if deposit outflows or another liquidity demand forced a sale. In [Board Staff 17]'s account, the Board understood the broad question presented by unrealized losses; the remaining task was to determine which institutions had a credible reason to recognize them.

[Board Staff 17] argued that supervision too often approached financial exposure questions such as this through the quality of the processes firms used to manage it. Supervisors generally do not direct a bank to eliminate a lawful concentration or dictate how it must run its business; they require risk-management practices commensurate with the exposure. But, in SVB's case, she concluded that "the material financial risks should have been called out" more directly. Supervisory attention to risk-management processes should be balanced against the condition those processes are intended to control, [Board Staff 17] commented.

Her principal forward-looking lesson followed from the uninsured-depositor run at SVB.

[Board Staff 17] did not believe supervisors, management or the broader financial system had appreciated how quickly such deposits could leave SVB. But that experience changed how she would examine an assertion that an adverse event was too improbable to warrant attention, she said. "Even if the probability was close to zero, now I won't take that for granted anymore," [Board Staff 17] shared. "If a bank tells me that's not likely to happen, I'll have to dig further and ask why do you think that's unlikely to happen?"

RBO did not regard SVB as an ordinary institution. Its rapid growth, distinctive business model and impending transition caused significant matters to receive senior attention. Yet the program remained driven principally by asset-size categories and by firm-specific priorities originating with the FRBSF.

Readiness for LFBO supervision, meanwhile, remained undefined. The next question, therefore, is what [Board Staff 17]'s LFBO counterpart understood SVB's condition to be at the moment of transfer.

Interview with [Board Staff 9]

Starling interviewed **[Board Staff 9]** on June 16th 2026.[146]

[Board Staff 9] described his role as "basically being a bit of a firefighter." He typically worked with between three and five large banking organizations, handling matters ranging from applications and acquisitions to examinations, supervisory findings and enforcement actions. The position required him to remain in contact with Reserve Bank leadership, examination staff and the relevant Central Points of Contact ("CPCs"), while carrying material concerns upward through the Board's supervisory chain.

In his characterization, the analyst functioned as "a communicator and therapist, to some degree."

[Board Staff 9] volunteered to work on SVB as it approached the $100 billion threshold, having previously worked with other large and prominent institutions and believing that SVB "would be an interesting bank to help with." He began participating in RBO meetings and working with [Board Staff 17] and other Board and FRBSF personnel in anticipation of SVB's transfer to LFBO.

But SVB was not his sole responsibility. "It's not like I was assigned, 'Hey, your job is the transition for SVB,'" [Board Staff 9] explained. "It's like you have other banks and other responsibilities, in addition you are working on SVB." His account therefore describes a supervisory architecture in which the person positioned to receive information at the Board concerning SVB was simultaneously responsible for several other institutions and a range of supervisory matters.

[Board Staff 9]'s testimony closely parallels [Board Staff 17]'s concerning the absence of an established process for moving SVB from RBO into LFBO supervision.

Preliminary discussions had occurred as SVB approached the former $50 billion threshold, but those discussions ceased after the threshold was raised to $100 billion. When SVB later approached the new threshold, the Federal Reserve was required to reengage with the transition question under changed regulatory and supervisory circumstances that then prevailed.

FRBSF had developed a project plan, [Board Staff 9] recalled, but it "probably looked more like a staffing plan."

Neither RBO nor LFBO leadership had established a playbook specifying when RBO examination work should end, when LFBO personnel should become involved, whether a preliminary LFBO examination should occur, or when SVB should be incorporated into horizontal capital and liquidity reviews. The supervisory processes governing those reviews, moreover, were themselves changing at the time.

The result was uncertainty about the respective roles of the RBO and LFBO personnel involved.

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[146] Appendix A-7, [Board Staff 9], 16 June 2026.

The RBO and LFBO CPCs worked in parallel for a period, but [Board Staff 9] recalled that there was "not necessarily a super clear cutoff" between their responsibilities. "In hindsight," he said, "there probably could have been clearer roles and responsibilities in the transition," with the parties "making it up as they go to some degree."

[Board Staff 9] ultimately put the matter more directly: "There was no playbook. It was designing on the fly."

He attributed this partly to the complexity of translating regulatory change into supervisory practice. Policy staff had to identify the applicable regulatory requirements; Legal and Supervision personnel then had to determine how those requirements would operate in practice; and Board and Reserve Bank leadership had to agree upon staffing, examination sequencing and institutional responsibilities.

To [Board Staff 9]'s knowledge, however, no cross-functional workstream had been established to carry out that task before SVB crossed the threshold.

The absence of a playbook should not be mistaken for an absence of activity. [Board Staff 9] recalled frequent discussions with RBO and LFBO personnel, project plans addressing staffing and examination requirements, and extensive coordination among Board, FRBSF, Legal and Policy staff. "It wasn't like everyone had dropped the ball and didn't care about it," he emphasized.

> **"In hindsight there probably could have been clearer roles and responsibilities in the transition.**
>
> [Board Staff 9]

Rather, there were differing views among supervisory leaders about when and how the transition should occur, and when SVB was to be considered sufficiently prepared to participate in LFBO examinations.

This last consideration presented a practical difficulty. LFBO's horizontal examinations depended upon substantial advance information, personnel capable of answering requests and sufficient institutional readiness to permit examiners drawn from across the Federal Reserve System to evaluate SVB effectively. Without that infrastructure, [Board Staff 9] explained, an examination risked producing "not a clear picture result."

This also meant that the supervisory machinery designed to test the adequacy of an institution's capital and liquidity practices operated most effectively only after the institution had developed the personnel and systems necessary to support the examination — personnel and systems that SVB was in the process of establishing as it worked to address the enhanced prudential standards applied by LFBO supervisors.

Staffing the FRBSF examination team also presented a related problem.

Although a staffing plan existed, it required review through a resource-approval process, after which FRBSF still had to hire or reallocate personnel. [Board Staff 9] described staffing during the RBO-to-LFBO transition as “not as clear and tight as it needed to be,” and acknowledged that “the full staffing of the San Francisco Reserve Bank exam team on SVB could have been more robust.”

Meanwhile, SVB was changing rapidly. Its extraordinary deposit growth during the pandemic enlarged the institution even as the bank attempted to build the systems, personnel, and governance arrangements required under the LFBO framework, [Board Staff 9] explained. SVB and its supervisors were therefore attempting to construct new infrastructure while the object of supervision was itself expanding at exceptional speed.

[Board Staff 9] defended the principle that a regulated institution bears responsibility for understanding the statutes, regulations and guidance applicable to it, conducting its own gap analysis and securing whatever professional expertise it requires. Supervisors, in his view, should not be expected to prescribe every action necessary to achieve compliance. At the same time, he acknowledged that the applicable supervisory processes and interpretations were in flux, making it difficult to communicate every expectation to SVB with complete clarity.

Asked whether SVB understood what was required of it, [Board Staff 9] drew an important distinction between knowledgeable individuals and institutional preparedness. “Certain people in that institution understood the expectations,” he said. “I don’t think the institution did.”

SVB was growing so quickly, and undergoing so much internal change, that it “was not as prepared for the [RBO to LFBO] transition as [it] could be.” Asked whether SVB had been fully prepared and whether he had received all the information that might have been useful when it transitioned to LFBO, [Board Staff 9] answered: “No.”

[Board Staff 9] nevertheless did not describe the institution inherited by LFBO as one understood to be in imminent danger of failure. The most immediate concern was its growth. “The pace of growth was absolutely crazy,” he initially said, before correcting himself: “I mean, not crazy. I mean, it was very fast for an institution of its size.” That growth implicated the adequacy of management, staffing, governance and operational infrastructure.

In the low-rate environment that had prevailed, [Board Staff 9] argued, SVB’s placing a large volume of newly received deposits into longer-dated Treasury securities did not appear, in itself, to be an obviously reckless strategy at the time. Market participants and policymakers had broadly expected interest rates to remain low, [Board Staff 9] recalled, and deploying deposits into Treasuries “was not outlandish” at the time.

The more probative issue was how SVB managed the resulting interest-rate exposure. [Board Staff 9] recalled a specific occasion on which the FRBSF team told him: “We should talk about interest-rate risk.” He then participated in a call with SVB’s chief financial officer during which SVB disclosed that it had removed certain hedges. [Board Staff 9] remembered the immediate reaction: “Why did you take your hedges off?" The disclosure prompted greater supervisory attention to interest-rate risk and ultimately a supervisory finding.

But [Board Staff 9]'s retrospective assessment of that finding was unambiguous: "In hindsight, was it as strong as it should be? Of course not."

Additional MRIAs followed, and supervisors began drafting an MOU. [Board Staff 9] believed that the contemplated enforcement action addressed interest-rate risk indirectly through provisions concerning financial management and governance. As the preceding discussion of Starling's interview with [Board Staff 5] reflects, however, neither draft MOU contained an express interest-rate-risk requirement.

[Board Staff 9]'s explanation helps to illuminate why. Supervisors tended to characterize the root cause of a financial-management failure as a question of who was managing the institution and how they were governing it. "Even though the financial position was scrutinized and understood," he explained, "the way it was communicated at that point was more about how are they governing their company."

This distinction is important. [Board Staff 9]'s account suggests that supervisors did not entirely overlook SVB's financial position. They examined it, questioned the removal of hedges and issued a finding addressing interest-rate risk. Yet the contemplated enforcement response translated the resulting concerns into the language of governance and financial-management process rather than directly requiring remediation of the material financial exposure. The MOU itself then became caught in a lengthy drafting and approval process. "It took way too long," [Board Staff 9] acknowledged.

By the fall of 2022, the issue had become more acute. [Board Staff 9] recalled that, during September, October and November, "there was a lot of concern over the balance sheet." He emphasized: "It's not like there wasn't concern. There was concern." That concern did not, however, crystallize into a judgment that SVB faced a clear and present danger of failure.

[Board Staff 9] communicated concerns up the supervisory chain, but did not understand SVB to be in an immediate failure situation. One reason involved the prevailing interpretation of SVB's deposit base.

SVB's deposits were highly concentrated within the venture-capital and technology ecosystem, but that ecosystem was then regarded as economically powerful, and the deposit relationships were considered to be unusually cohesive. A large deposit base concentrated within that sector could therefore be viewed as a source of strength as well as vulnerability. "Deposits were considered stable forms of funding for the most part — until they weren't," [Board Staff 9] observed.

Nor did [Board Staff 9] identify Treasury securities as the most likely cause of failure at the time. His principal concerns were the pace of growth; the capacity of management, staffing and governance to keep pace with that growth; and the adequacy of SVB's technology and operational infrastructure. "I didn't necessarily think that Treasuries would take them down," [Board Staff 9] said. Rates subsequently increased with a speed that surprised both SVB and much of the industry, producing substantial unrealized losses across many institutions.

SVB also competed for attention with other troubled or complex institutions in the LFBO portfolio. [Board Staff 9] clarified that SVB's transition was his foremost concern and that SVB was among the portfolio's significant concerns. It was not, however, universally understood to be the institution most likely to fail.

These considerations led [Board Staff 9] to offer a qualified endorsement of the Barr Report's conclusions.

He agreed that "the bank definitely did not manage its risks properly" and that "the RBO and LFBO transition was not as tight as it could be." He also agreed that supervisors could have placed greater emphasis on material financial risk and communicated their concerns more clearly.

> **"I didn't necessarily think that Treasuries would take them down.**
>
> [Board Staff 9]

But [Board Staff 9] cautioned against reducing the failure to a single error or actor. SVB's business model had operated successfully for years before the bank "grew too fast and got over [its] skis." The extent of the resulting vulnerability was not fully understood by either SVB or its supervisors: "They were aware of it, we were aware of it, but no one was aware to what degree."

[Board Staff 9] was particularly candid when asked to assess his own actions with the benefit of hindsight.

He agreed that supervision had not reached the level it should have before the failure. At the time, he believed the Federal Reserve was building toward an adequate supervisory infrastructure, "but we were not there at that point." The FRBSF team was not yet staffed as robustly as it could have been, while the Board's LFBO program had failed to prepare adequately for the transition.

He also acknowledged that he personally "could have been much more assertive around some of the interest rate factors." In retrospect, he wished he had insisted: "This needs to be an enforcement action. This shouldn't be an MRA. This should be more. The rating should go down immediately."

[Board Staff 9] added that supervisors were already moving in the direction of adverse ratings at SVB, but the qualification only sharpens the issue under examination: the relevant question is not merely whether supervisors were moving toward stronger action, but whether they moved with sufficient urgency to overtake SVB's deteriorating financial position.

[Board Staff 9]'s testimony thus supplies the receiving side of the handoff from RBO described by [Board Staff 17].

LFBO inherited a bank understood to be growing exceptionally quickly, struggling to build management and control infrastructure, and entering a more demanding supervisory regime. The transition was managed through extensive but improvised supervisory coordination, without a settled playbook, with incomplete staffing, overlapping responsibilities, and competing demands upon the supervisors involved.

Once SVB entered LFBO supervision, supervisors did identify interest-rate and balance-sheet concerns. They questioned the removal of hedges, issued a supervisory finding, contemplated an enforcement action and, by the fall of 2022, they had expressed substantial concern about the balance sheet. But those concerns were communicated principally through findings directed at governance and process; the contemplated MOU remained unfinished; ratings had not yet been reduced with the force [Board Staff 9] now believes to have been warranted; and SVB's concentrated deposit base was still understood as a potential source of strength.

[Board Staff 9] therefore does not describe supervisors who saw nothing. He describes supervisors who saw many of the component risks but did not combine them, soon enough, into an institutionally authoritative judgment that demanded immediate corrective action.

[Board Staff 9]'s account thus gives more precise meaning to the conclusion that supervisors failed to act with sufficient "speed, force, and agility," as Vice Chair for Supervision Barr would later highlight. The warning signals were present, but they moved through a supervisory system that was itself still preparing, staffing, interpreting and deliberating when the financial threat to SVB overtook it.

5. An overly "deliberative" supervisory approach

The Barr Report does not attribute the Federal Reserve's delayed response to the accumulating fragility of SVB to an absence of supervisory information. Rather, it describes a system in which identified supervisory concerns crawled from observation to formal finding, from finding to rating change, and from rating change to enforcement action.

In the Barr Report's formulation, supervisors continued to accumulate evidence and to seek consensus regarding potential remediation requirements long after the need for a stronger response should have become apparent. Supervision of SVB fell victim to the 'frog in a pot of slowly boiling water' effect.

The Report highlights SVB's supervisory ratings. A November 2021 liquidity examination produced six findings, but examiners characterized them as foundational matters rather than material deficiencies specifically related to SVB's readiness for enhanced prudential standards. SVB had received a Satisfactory rating only months earlier, in July 2021. "Despite the observed weaknesses," the Report states, "because SVBFG had just recently been rated as Satisfactory in July 2021, staff questioned whether it would be reasonable to come out with a new rating so quickly."[147]

That hesitation illustrates what the Report portrays as ratings inertia. A previously assigned Satisfactory rating did not merely describe SVB's condition at a point in time; it became a presumptive baseline against which later evidence was judged. As the Report explains, "the rating assigned as a smaller firm set the default view of SVBFG as a well-managed firm when a new supervisory team was assigned in 2021 after SVBFG's rapid growth." The practical consequence was that "[t]his made downgrades more difficult."[148]

The same pattern appeared in the treatment of interest-rate risk. According to the Report, supervisors identified deficiencies during SVB's 2020, 2021, and 2022 CAMELS examinations, but "did not issue supervisory findings." Instead, "[t]he deficiencies were only communicated as written advisories or verbal observations."[149]

A formal MRA was not issued until November 2022, after SVB management informed supervisors that net interest income — which the bank had expected to benefit from rising rates — was instead projected to decline. Supervisors then planned to reduce SVB's Sensitivity to market risk rating from Satisfactory to Less-than-Satisfactory, but SVB failed before the downgrade was finalized.[150]

The Barr Report emphasizes that supervisors were not entirely inactive during this period. They conducted examinations, communicated deficiencies, and issued findings. But those actions did not produce a timely adjustment in the Federal Reserve's authoritative assessment of SVB. "While supervisors did issue supervisory findings," the Report concludes, "the delay in a rating downgrade

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[147] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 9.

[148] Ibid.

[149] Ibid., 65.

[150] Ibid., 64.

meant that SVBFG effectively continued to operate below supervisory expectations for more than a year despite its growing size and complexity."[151]

The rating actions taken in 2022 were the first downgrades of SVB or its holding company since 2017.[152]

It is from this chronology that the Barr Report draws its central conclusion: "Overall, the supervisory approach at SVBFG was too deliberative and focused on the continued accumulation of supporting evidence in a consensus-driven environment."

A divorcing of responsibility, authority & accountability

The Report links this deliberative tendency to the division of authority between the Board and the Reserve Banks. Formally, the Board had delegated to the Reserve Banks supervisory authority over firms such as SVBFG, including authority to assign supervisory ratings. In practice, however, "Reserve Bank supervisors typically seek approval from or consensus with Board staff before making a rating change."

Enforcement actions involving banks with more than $100 billion in assets were not delegated and required approval by Board staff. This arrangement, the Barr Report argues, created uncertainty about where authority resided and what degree of agreement was required before action could be taken. "The lack of clarity around governance processes and the need for consensus often led to a lengthy process," it states.[153]

The Board's dual role compounded the difficulty.

Board personnel supplied substantive input into supervisory judgments — including ratings formally assigned under delegated Reserve Bank authority — while also exercising oversight over the Reserve Banks themselves. According to the Report, this arrangement created "conflicting incentives for the Reserve Banks" and "an additional force that pushes toward consensus around supervisory judgments."[154]

Supervisory judgments can have significant legal and financial consequences and must be adequately supported. On its face, achieving consensus across a broad range of thoughtful specialists before taking supervisory decisions and enforcement actions might seem desirable, even admirable.

An unintended consequence, however, is that consensus became a practical prerequisite for action even where formal authority had already been delegated. Responsibility could therefore be distributed across Reserve Bank examiners, Reserve Bank leadership, Board supervisory personnel, and Board

[151] Ibid., 9.
[152] Ibid.
[153] Ibid., 10.
[154] Ibid.

Legal staff, without any one participant in that chain possessing both uncontested authority and clear accountability for producing a timely decision and decisive action.

The challenges that flow from this divorcing of responsibility, authority, and accountability are well-known and long-observed among those working within the Federal Reserve System, as the Barr Report notes.

The Report situates this problem within a broader supervisory tendency identified after the Global Financial Crisis. It cites a non-final review, commissioned by the Federal Reserve Bank of New York, that identified "delay from a consensus-driven culture that smooths over complex issues," together with "an excessive risk aversion and deference from supervisors," "a shift toward reviewing risk processes rather than the risk itself," and "a focus on recognition of risks rather than actions."[155]

The Barr Report regards the recurrence of similar concerns at SVB as evidence that the problem was not unique to one bank or one supervisory team. At its core, the Report's criticism concerns the kind of proof supervisors believed necessary before acting. It describes "a perceived need to form ironclad assessments about what had already gone wrong" and insufficient willingness to make judgments "with a more open mind about what could go wrong." This produced what the Report characterizes as a "hesitancy to move decisively," particularly during periods of strong economic growth and favorable business performance.

The distinction is between retrospective proof and prospective supervision; hospice care versus preventative medicine.[156] The Barr Report argues that the supervisory process placed excessive weight upon eliminating uncertainty before acting, even though the function of supervision is partly to respond to risks before their consequences become certain.

> **The root cause of these delays around supervisory actions is difficult to ascertain.**
>
> The Barr Report

Then-Vice Chair for Supervision Barr articulates the intended alternative in his introductory letter: "We need to develop a culture that empowers supervisors to act in the face of uncertainty." At SVB, he writes, "supervisors delayed action to gather more evidence even as weaknesses were clear and growing." The result was that "supervisors did not force SVB to fix its problems, even as those problems worsened."[157]

And yet the Report is cautious about the strength of its causal attribution. "The root cause of these delays around supervisory actions is difficult to ascertain," it acknowledges.

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[155] David Beim and Christopher McCurdy, *Federal Reserve Bank of New York Report on Systemic Risk and Bank Supervision* (draft, August 5, 2009), https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-08-05%20FRBNY%20Report%20on%20Systemic%20Risk%20and%20Supervision%20Draft.pdf.

[156] Stephen Scott, "Why Supervisors Should Consider the Hippocratic Oath," The Banker, June 26, 2026, https://www.thebanker.com/content/4ce6429a-03e1-407b-8020-8ac8dac4ada2.

[157] Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 3.

Governance issues associated with delegated authority "may play a role," the Barr Report notes, without identifying any official holding the responsibility or authority for driving the changes needed or confronting accountability for a failure to do so. And in the course of Starling's Probative Inquiry as conducted to date, this well-known, long-observed, and nevertheless persistent problem was in constant evidence.

Interview with Senior S&R leadership

Indeed, in our initial engagement with current senior Board staff in Supervision & Regulation ("S&R"), these frustrations were a focus of early discussions.[158]

[Board Staff 10] shared her belief that the examiners saw the risk [at SVB], but either didn't appreciate its severity or didn't act upon it. Where the dynamic was "we saw it and didn't act," [Board Staff 10] argued, Starling's Inquiry must ask what supervisors actually do after identifying a concern, and why.

[Board Staff 13] likewise stated that the risks facing SVB were recognized within the Federal Reserve, while **[Board Staff 11]** questioned why supervisors had not acted as early as March 2022, when SVB's business model appeared, to him at least, to have become potentially unsustainable.

> **"No one knows who can make a decision to permit something, but every single person here holds a 'pocket veto' to prevent something.**

These accounts lend support to the Barr Report's description of an overly deliberative supervisory approach, and begin to explain how that condition operated in practice.

[Board Staff 4] characterized the Federal Reserve as suffering simultaneously from "too many cooks in the kitchen" and a highly siloed structure. She described a historically intentional culture of consensus within S&R which, however well intended, could in practice obscure processes and weaken accountability.

In this connection, [Board Staff 4] recalled Barr Report lead writer [Board Staff 14] observing: "No one knows who can make a decision to permit something, but every single person here holds a 'pocket veto' to prevent something."

[Board Staff 10] described supervisory decisions as feeding upward through a committee structure, which she associated with a lack of individual decision-makers within S&R and a lack of individual accountability. [Board Staff 13] similarly characterized the system as having multiple layers of decision-making, with limited clarity on accountability.

The division of authority between the Board and the Reserve Banks appears to have contributed further ambiguity. Supervision is formally delegated to the Reserve Banks, while supervisory

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[158] Appendix A-10, S&R Leadership, 17 & 18 February 2026.

expectations, policy priorities, escalation, legal review, and reputational accountability also run up through the Board.

Yet [Board Staff 13] described a general sense that, historically, Board leadership has sought to accommodate the Heads of Supervision at the Reserve Banks, emphasizing inclusiveness while continuing to maintain that supervisory authority was ultimately delegated to the Reserve Banks by the Board. Leadership appeared to avoid directly confronting this tension, she observed.

[Board Staff 4] likewise noted that it was not always clear whether Reserve Bank Heads of Supervision were accountable to their respective Reserve Bank presidents or to the Vice Chair for Supervision at the Board. [Board Staff 10] questioned whether the Federal Reserve possessed a clear 'three-lines-of-defense' structure. In her account, the Reserve Banks could perhaps be described as functioning effectively as a first line, while the Board provided something resembling second-line oversight that was often backward-looking.

This structure risked creating a jurisdictional no-man's-land. Reserve Bank personnel might possess delegated authority but nevertheless seek alignment with the Board before exercising it, while Board personnel might exert substantial influence over supervisory judgments while maintaining that direct responsibility remained with the Reserve Bank.

These early interviews also identified a horizontal version of the same problem in the relationship between specialist Risk teams and the "portfolio" teams responsible for supervising institutions of differing size and systemic significance.

[Board Staff 13] stated that Risk had identified and communicated concerns regarding SVB to portfolio supervision teams well in advance of the bank's failure, but suggested that the portfolio teams may not have acted on those warnings. She acknowledged that the "push-and-pull dynamic" between Risk and portfolio teams (CBO, RBO, LFBO, and GSIB) can be healthy, but cautioned that it can also result in critical risks being dismissed inaccurately as false positives.

[Board Staff 10] described the same recurring tension: Risk teams raise alarms and highlight concerns, while portfolio teams may respond that the matter is "not a priority."

Portfolio teams may possess institutional knowledge that permits them to place warnings in a well-informed context, while the Risk team may detect worrying patterns that are less visible from within the supervision of a single institution. The difficulty is not the existence of these complementary views, even when they are in competition. The question is how the Federal Reserve adjudicates between them.

Our early interviews suggest that the system lacked a sufficiently clear mechanism for determining when a specialist warning should be treated as a false positive and when it should trigger escalation, a change in supervisory posture, or direct risk-reduction measures. In the absence of such a mechanism, disagreement became a source of delay.

The supervisory actions that did emerge from this process, moreover, may also have been directed too often toward improving risk-management processes rather than reducing risk directly.

[Board Staff 10] observed that supervisors frequently wrote MRAs focused on process improvement. And even where supervisors identified a financial risk, she said, they might require the development of better models rather than prescribe an immediate change in the institution's financial position. She emphasized that an MRA should identify its anticipated impact on the institution; if supervisors could not explain that impact, she questioned why the MRA was being written.

[Board Staff 13] similarly described supervisors as emphasizing stronger risk-management frameworks rather than prescribing concrete risk-reduction measures. This distinction bears directly upon the experience at SVB, as outlined by the Independent Directors in the Statement they provided Starling, attached hereto.

Legal review and concerns regarding due process added another potential conversion bottleneck.

[Board Staff 11] emphasized that earlier intervention at SVB might have exposed the Federal Reserve to legal challenge, including a claim that it had acted too aggressively. Yet the interviews also suggest that legal review could become an opaque stage in an already diffuse process.

[Board Staff 13] observed that, while banks might be told that enforcement actions were forthcoming, field supervisors were not always kept informed of their progress because the actions were "stuck in Legal."

[Board Staff 10] explained that, for more serious measures such as MOUs and enforcement actions, Board staff and Board Legal became involved, and the matter might escalate all the way to the VCS. The result could separate those responsible for the day-to-day supervision from knowledge of whether, when, or why a contemplated action was advancing through Legal.

It could also further obscure responsibility for delay. What appeared from one vantage point to be supervisory hesitation might appear from another to be legal caution, a need for Board alignment, unresolved disagreement among specialists, or deference to authority formally delegated elsewhere.

Our early interviews with S&R leadership complicate claims that this condition might result from the supervisory philosophy of any particular Vice Chair for Supervision.

[Board Staff 10] observed that successive Vice Chairs brought different approaches to supervision and created different expectations for examiners. She said that Vice Chair Quarles spoke about due process in terms that examiners interpreted as establishing a very high bar: that a bank had to break the law before a supervisor could sanction it. But she did not believe that Vice Chair Barr necessarily articulated his expectations any more clearly. In [Board Staff 10]'s view, a Vice Chair cannot rely on speeches alone; examiners need more explicit direction if they are to understand what is expected of them in their examination work.

Supervision nevertheless shifted under Barr toward greater enforcement, [Board Staff 10] said, though not necessarily for the "right" issues. This suggests that the organization may be highly responsive to perceived signals from its leadership without possessing reliable mechanisms for translating those signals into doctrine, training, decision-rights, and tested supervisory practice.

[Board Staff 4] questioned whether Quarles's "guidance on guidance" had been accompanied by examiner training or other efforts to ensure that it had "stuck." [Board Staff 10] was uncertain whether S&R had tested whether policy messages were understood as intended by the staff to whom they were directed. In such an environment, examiner conduct may be shaped by actual policy, perceived policy, institutional rumor, local custom, or a potentially defensive interpretation of what senior leadership is believed to prefer.

Senior S&R staff described repeated efforts to remedy these governance problems.

[Board Staff 4] referenced a "Future of Supervision" initiative and a "One Fed Supervision" change management effort initiated following SVB's failure. The former included an assessment of existing governance arrangements but, according to [Board Staff 4], did not progress to actionable recommendations. In this context, [Board Staff 4] recalled [Board Staff 14]'s sardonic assessment: "We're really good at admiring the problem."

[Board Staff 10] participated in an effort under then-Vice Chair Barr to develop RACI matrices intended to clarify who owns what, what gets escalated, and who is responsible for escalating concerns. She said that effort "fell apart when leadership changed."

[Board Staff 12]'s account points to the personnel incentives capable of sustaining this condition. She characterized Federal Reserve employees as inherently risk averse and suggested that employees who maintain a low profile, meet baseline expectations, and align with prevailing views are more likely to succeed, while outliers may be marginalized.

[Board Staff 12] also observed that an institutional desire to demonstrate collaboration can produce additional bureaucratic structures and forums: multiple meetings, committees, and repeated efforts to solicit broad input. Collaboration, on [Board Staff 12]'s account, can become performative: evidence that process has been followed, but not necessarily that a consequential decision has been made.

These initial interviews therefore lend provisional support to the Barr Report's diagnosis, while making it both more concrete and more complex.

Interview with past-Governor Daniel K. Tarullo

Relevant perspective was offered by past-Governor **Daniel K. Tarullo**, whom Starling interviewed on March 27th 2026.[159] Tarullo served as a member of the Federal Reserve Board from January 2009 until April 2017 and chaired its Committee on Supervision and Regulation.

[159] Appendix A-12, Daniel K. Tarullo, 27 March 2026.

In this capacity, he exercised the supervisory-oversight function before the 2010 Dodd-Frank Act created the Vice Chair for Supervision ("VCS") as a statutory office. As Tarullo explained, the Board had previously designated an "oversight governor," who was "really the predecessor of the VCS." For some eight years, Tarullo led the Board's supervisory function in this capacity.

"Supervision is actually hard to do," Tarullo explained.

Prudential rules operate through measures and assumptions that approximate risk, Tarullo explained; they cannot anticipate every combination of circumstances capable of undermining a bank's resilience. Supervision must therefore determine whether "something [is] going on here that wasn't contemplated when the capital rules were adopted," such that compliance with the rules no longer produces the safety and soundness those rules were intended to secure.

SVB supplied what Tarullo called the case par excellence. The bank remained substantially compliant with the regulatory rules applicable to it while carrying significant capital and liquidity vulnerabilities. Effective supervision consequently requires more than confirming compliance. Supervisors must examine an institution as a whole, identify how its risks interact and, where necessary, "take action." That function necessarily involves discretion and, Tarullo emphasized, it "requires insight."

Moreover, the exercise of that discretion, in Tarullo's account, demands active executive leadership.

Asked why we need a Vice Chair for Supervision, Tarullo answered: "Because there's an executive function there." Supervision and regulation are, he said, "by two orders of magnitude the most important, complicated thing that goes on at the Fed other than monetary policy." The institution therefore needs "somebody who is an executive, who is driving the organization and the process and pushing at things."

"Supervision is actually hard to do.

Daniel K. Tarullo
past-Governor, Federal Reserve Board

Tarullo did not suggest that the Vice Chair should operate as an unchecked chief executive. Supervisory policy must move through committees and, where required, he argued, it must receive the approval of the Board. Other Governors possess their own statutory responsibilities and votes, Reserve Banks possess delegated supervisory authority, and other agencies may have jurisdiction over the same institution. The role was, in Tarullo's formulation, "an executive function, but one that is not solely a hierarchical position."

That distinction complicates the Barr Report's criticism of a "consensus-driven environment."

Tarullo did not regard consultation or consensus as inherently inimical to effective supervision. His experience constructing LISCC persuaded him that collective deliberation could reduce the personal and institutional stakes associated with raising an emerging concern.

A supervisor need not necessarily arrive before senior officials with a fully developed recommendation and face a binary approval or rejection, Tarullo argued. Instead, a supervisor could bring forward an observation — concerning leveraged lending at one institution, for example — and initiate a collective inquiry. Personnel supervising another institution could then compare that perspective against whatever they were seeing, while specialist staff could contribute data and analysis, and participants in the exam process could then determine whether the concern was idiosyncratic, systemic, or insufficiently substantiated.

Tarullo described this as a "non-hierarchical, non-confrontational process" that blended problem-solving with oversight. Properly conducted, such deliberation would not inhibit action; it would allow a concern to be identified and tested without turning its presentation into a referendum upon the judgment or professional standing of the individual who raised it. "Properly conducted" being the operative phrase in that description.

Notably, Tarullo's model for supervision contained an essential feature missing from the accounts offered by several of Starling's other interviewees: deliberation must culminate in a decision. "If there's no consensus," Tarullo explained, "the VC or the Director of the Supervision and Regulation Division may have to make the decision." Consensus informed the judgment. It did not displace the obligation of an identified official to make decisions based on such judgments.

The distinction is consequential. The supervisory lapses described in Starling's initial interviews did not arise because too many people were permitted to contribute views. They appear to have followed when peer consultation had no defined terminus; when the absence of agreement prevented action by default; and when no identified official could determine whether or when the institution should take action.

Tarullo sounded another note of caution: leadership must identify supervisory priorities, but those priorities, he observed, "rarely fall away. They are only additive." Over time, supervisors thus acquire an expanding list of matters they are expected to examine and report upon. That absorbs attention and creates uncertainty about whether supervisors are authorized — or expected — to pursue a concern that may not already be reflected among leadership's stated priorities.

Personnel naturally attempt to discern what senior officials want, Tarullo explained. Their assignments, professional standing, and opportunities for promotion may depend upon it. So when senior leadership's policy position is unclear, Tarullo said, "the safest thing to do is probably not to push it very much."

A supervisor who escalates a concern only to be rebuffed has exposed the limits of their influence internally and, potentially, to the supervised institution. Tarullo distinguished this from the older concern that examiners might soften their judgments in the hope of later employment by a bank. The incentive he described operates within the Federal Reserve itself: an "internal labor market," in which personnel seek to conform not only to what leadership has said, but to what they believe leadership might in fact want.

The result is "a certain conservatism." A supervisor may identify a problem, challenge the bank, and begin to press for corrective action. But if the matter then disappears into the supervisory hierarchy, bank leadership recognizes what occurred. As Tarullo described the dynamic, the passage of time communicates that "the higher ups have said, 'We're not going to push this.'"

The supervisor's authority is thus weakened, even though no formal decision may have been communicated and the responsible senior official may remain difficult to identify.

For Tarullo, uncertainty concerning process intensifies this problem. Field supervisors may know that a proposed action is moving slowly without knowing why. "Is this going slower because the VC doesn't want it to happen?" they may wonder. "Or is it going slower because the guy in Washington has too much stuff on his plate?" In Tarullo's formulation: "They just don't know."

This observation gives practical meaning to the ambiguity described by [Board Staff 10], [Board Staff 4], and [Board Staff 13].

Where decision-rights, escalation paths and expected timelines are unclear, delay itself becomes a message, but an indecipherable one. Field personnel cannot determine whether they should assemble further evidence, revise their recommendation, press the matter more forcefully, await a legal judgment or understand the absence of action as an implicit rejection.

> **"What was the process? Where did it go? Who makes the decisions?"**
>
> Daniel K. Tarullo
> past-Governor, Federal Reserve Board

Tarullo applied this concern to several points in SVB's supervisory chronology, emphasizing that he had no inside knowledge regarding such. His assessment was drawn from the Barr Report, the OIG Material Loss Review, and the supervisory records released publicly. The questions he raised were thus those of an experienced former oversight governor examining the postmortem record.

The first episode Tarullo called out concerned the proposed downgrade to SVB's Management rating in May 2021 that did not occur. "What happened there?" Tarullo asked. "What was the process?"

The second involved the decision not to downgrade SVB's Liquidity rating later in 2021, notwithstanding concerns raised as SVB transitioned from RBO to LFBO supervision.

The public account suggested that supervisors hesitated because SVB had received a Satisfactory rating only months earlier, and additional evidence was thought necessary. But that account did not reveal what the supervisory team was expected to understand from the earlier decision. Did the responsible officials wish to avoid appearing to repudiate the work of the predecessor portfolio? Did they resist downgrading banks absent substantially more evidence? Or did some other consideration govern?

We "just don't know," Tarullo observed.

Tarullo also pointed to the Board's surveillance function [Risk] identifying SVB in June 2022 as an institution presenting concern because of the scale of the unrealized losses in its longer-duration securities portfolio. "What the heck happened?" he asked. "Nothing happened apparently, but why?"

Tarullo cautioned against attributing the result automatically to Vice Chair Quarles's supervisory philosophy. "Sure, it could have been Randy [Quarles]," he said. "But it could have been twelve other reasons why it didn't happen either, and we just don't know."

That qualification is significant. An opaque decision process invites retrospective political explanation, Tarullo offered. Former supervisors may attribute inaction to an understood preference for a "lighter touch," while former leaders may respond that no such direction was given. Without a contemporaneous record of who considered a given warning, what judgment was reached, who made that judgment and why, neither proposition can be tested adequately.

Other episodes appeared still more troubling to Tarullo. When SVB's internal models produced unfavorable results concerning interest-rate risk and liquidity stress, management changed assumptions used in the models. "A redder flag is hard to imagine," he commented. Yet the public materials did not permit him to determine how that information moved through the supervisory process or why it failed to precipitate a stronger response.

Tarullo's recurring questions were: "What was the process? Where did it go? Who makes the decisions?"

Tarullo believed that the proposed Management downgrade in 2021 warranted particularly close attention. The public account, he said, appears to him either to have been "sanitized" or prepared without access to the relevant underlying facts. The episode "had the feel of somebody overruling the line people," Tarullo said. He formed a similar impression concerning the Liquidity rating: it appeared as though someone "higher up the chain" had said no, "but you can't tell that from the reports."

Tarullo argued that responsibilities should be clarified ex ante and that consequential supervisory decisions should be documented internally. This would allow participants to understand their authority while events were unfolding and provide a record from which the OIG or another reviewer could reconstruct what occurred afterward. In his experience, even conscientious postmortem investigators often struggled to identify the cause of inaction, because the critical judgments and handoffs are rarely recorded in a manner that permits responsibility to be traced.

Tarullo placed these governance problems within a broader question concerning the purpose of supervision.

He agreed that supervisors can devote excessive attention to matters of secondary importance and to risk-management process at the expense of material financial vulnerability. "Certainly, the record of the SVB failure suggests supervisors were spending too much time looking at the bank's liquidity management process," he observed, "and not enough assessing the potential liquidity vulnerabilities" arising from uninsured deposits, unrealized losses and industry concentration. But Tarullo resisted the conclusion that process is irrelevant. A bank's risk-management process may reveal latent dangers before they appear in current financial measures, he noted.

The task is therefore to use process supervision as a means of identifying emerging vulnerability, rather than allowing the evaluation of process to become an end in itself.

The same distinction informed Tarullo's discussion of enforcement. Supervision should ordinarily begin by identifying the problem and requiring the bank to propose a credible remedy. Supervisors should remain open to an alternative remedy capable of meeting the required prudential outcome, rather than dictating the precise corrective mechanism that the bank must employ. But if the institution does not produce a plausible response within a reasonable period, Tarullo argued, supervision must escalate, potentially through an MOU or another enforcement instrument.

Once the matter reaches that stage, Tarullo said, "the action should be pretty quick." The difficulty is that "it takes so long to get to the point where the supervisors want to do something, and then there's a big delay." An effective iterative process should already have created a record of the supervisory concern, the bank's response, and the demonstrated inadequacy of any remediation.

If senior officials wait until the enforcement stage to demand that the entire record be developed anew, the process becomes needlessly legalistic. "If you don't trust your process and monitor it along the way," Tarullo warned, "then you're going to over-legalize things at the end."

Tarullo identified this as a philosophical point of disagreement with Quarles, while emphasizing his personal respect for him. In Tarullo's view, an insistence upon treating every supervisory escalation as though it were an Administrative Procedure Act hearing misunderstands the supervisory function.

Supervision exists precisely because prudential regulations address risk indirectly and cannot prescribe in advance how every dangerous condition will present itself, Tarullo argued. If supervision is reduced to on-site enforcement of established rules, then materially more stringent rules would be required to capture the risks the exercise of supervisory judgment no longer addresses.

Tarullo's testimony thus sharpens the Barr Report's institutional diagnosis.

An effective supervisory system cannot dispense with deliberation, because supervisory judgments require multiple sources of information, specialist expertise, comparison across institutions, and fair consideration of competing views, Tarullo argued. Nor can it dispense with evidence, due process, or legal discipline.

But deliberation must be joined to executive responsibility. Consensus should inform a decision, not become an indefinite condition precedent to one. When agreement cannot be achieved, an identified official must possess and exercise the authority to take a decision, and supervisory staff must know where the matter stands, why a decision was reached, what is expected next, and when further escalation is required.

Tarullo ultimately identified two recurring supervisory shortcomings: the failure to identify an emerging problem, and the failure to follow through after one has been identified.

The case study of SVB appears to have involved both: alarm bells associated with the firm's rapid growth, asset concentration, and dependence upon a single industry did not sound sufficiently in the period during which SVB accumulated its exposure; and when more explicit warnings later emerged, supervisory processes failed to convert them into timely, authoritative action.

Interview with LFBO leadership

The questions posed by Tarullo — "What was the process? Where did it go? Who makes the decisions?" — were put directly to three Board officials responsible for the Large & Foreign Banking Organization ("LFBO") supervisory portfolio during the period surrounding SVB's transition into that portfolio and its subsequent failure.

Starling interviewed [Board Staff 8], [Board Staff 6], and [Board Staff 7] on June 3rd 2026.[160]

Their account helps to distinguish between the formal architecture of LFBO supervision and the way supervisory decisions were reached in practice.

Formally, the LFBO program was developed and overseen by the Board, while the Reserve Banks were responsible for executing that program at individual institutions. Each Reserve Bank developed the supervisory strategy for the LFBO firms within its district, conducted most examinations, and possessed delegated authority to assign supervisory ratings. Board personnel participated in those examinations through consultation, portfolio oversight, specialist risk functions, and complementary horizontal examinations conducted across multiple institutions.

The LFBO Management Group brought these participants together. [Board Staff 6] emphasized, however, that it was not itself a decision-making body. Rather, it provided a forum within which Reserve Bank proposals could be presented, questioned, compared against other institutions, and considered in light of Board policy and portfolio-wide experience.

That structure offered clear advantages. Horizontal examinations allowed specialist personnel to compare practices and vulnerabilities across firms. Ratings discussions brought together the institution-specific knowledge of the Dedicated Supervisory Team, the perspective of Board analysts, and the experience of managers and officers across the LFBO portfolio. [Board Staff 8] also described a formal "divergent view" process, developed by the Board following the Global Financial Crisis, through which an individual who disagreed with an initial judgment could require the underlying facts to be reconsidered.

But the process was elaborate. A proposed rating would ordinarily be discussed by the Management Group, reviewed by the Board analysts responsible for the firms, considered by Firm Oversight

[160] Appendix A-6, LFBO Leadership, 3 June 2026.

managers, and then discussed among the broader group of Board LFBO managers, officers, and the portfolio lead. Where Board personnel disagreed with the Reserve Bank's proposal, additional bilateral discussions would follow. In some cases, [Board Staff 7] explained, the Reserve Bank changed its proposed rating after those discussions.

[Board Staff 6] characterized this as a "well-vetted process," adding: "There's lots of discussion at the Board." The difficulty was identifying when that discussion had ended, who possessed authority to end it, and who would be accountable for the resulting judgment and ensuing actions.

"At the end, I think it's really hard to understand who's actually making the final decision," [Board Staff 7] observed. "I think that always has been the case."

Formally, Reserve Banks made supervisory decisions pursuant to authority delegated by the Board. In practice, [Board Staff 7] explained, the process operated "more like building consensus during a decision-making process than one person making the final call after considering pros and cons laid out." Although Reserve Banks were supposed to decide in consultation with Board staff, he said, "the 'in consultation' part has always been vague."

"I think it's really hard to understand who's actually making the final decision.

[Board Staff 7]

When asked whether the uncertainty concerned who made a particular decision, who possessed the authority to make it, or both, [Board Staff 7] answered: "I think it's both."

[Board Staff 6] offered an important qualification: decisions *were* made; the problem concerned 'ownership' of such. Board personnel might tell Reserve Bank supervisors that the decision was theirs, subject to consultation, while Reserve Bank personnel asked: "Do I really own it?"

[Board Staff 8] agreed that there was "a lack of clarity around authority and when, if there is authority, it can be exercised in making decisions." Nor was it always clear, she added, how that authority should be communicated, or at what point it should be exercised.

[Board Staff 7] traced the ambiguity to the structure of delegated supervision itself.

The Board delegated day-to-day supervision to the Reserve Banks, while retaining responsibility for overseeing their performance and ensuring that supervision was consistent, effective, and aligned with Board policy. When that oversight function became intermingled with institution-specific decision-making, he explained, "it all of a sudden becomes really blurry." A Reserve Bank might formally possess the authority to decide, while simultaneously understanding that the Board was reviewing both its proposed decision and its performance in reaching it.

The specific firm oversight analysts charged with connecting the flow of information and decision across these organizational levels occupied a particularly difficult position. [Board Staff 8] described their "dual hatting": they were expected both to understand the daily supervision of an institution and to exercise oversight over the Reserve Bank team conducting that work. Those at the Board were often substantially more junior than the Reserve Bank officers with whom they interacted, responsible for several institutions, and unable to possess the same depth of institution-specific information as the on-site Dedicated Supervisory Team.

That arrangement could complicate information flows. [Board Staff 8] suggested that on-site personnel might hesitate to speak freely out of concern that their actions would later be criticized by the Board. At the same time, a Board analyst could not be involved in the supervision of the institution as fully as the Reserve Bank team. Analysts relied upon their managers and officers for guidance and escalation, but, [Board Staff 8] acknowledged, "sometimes it is difficult to know what to do."

Moreover, the enforcement process introduced an additional series of handoffs. Ordinarily, supervisors conducted an examination, issued findings, considered a ratings downgrade, and then determined whether an enforcement action was warranted. The Reserve Bank would submit a recommendation, Board LFBO personnel would review it, and the matter would then move on to Board Legal. [Board Staff 6] said that these processes "could be fairly extended."

> **Sometimes it is difficult to know what to do.**
>
> [Board Staff 8]

At the time preceding SVB's failure, [Board Staff 8] explained, "there were no set timelines" and no system indicating that an action had entered "yellow status or red status." Board Legal may have maintained its own internal controls, the interviewees cautioned, but those controls were not visible to them. Reserve Bank personnel would occasionally ask [Board Staff 6] or [Board Staff 7]: "Where's the enforcement action?" Board LFBO personnel would then pursue an update.

S&R has since established a more structured process, with timelines and personnel responsible for monitoring an action on both the supervisory and legal sides. During the period relevant to our Inquiry, however, no similarly visible mechanism ensured that a proposed action moved from recommendation to completion within any specified timeframe. This gives practical substance to Tarullo's warning that supervision can become excessively legalistic.

SVB's transition from RBO to LFBO supervision provides a concrete illustration of the broader problem. SVB was the first domestic banking organization to cross into LFBO supervision following the relevant changes to the applicable thresholds post-EGRRCPA. [Board Staff 7] recalled that, although communications occurred, the Federal Reserve lacked a formal internal process specifying what the transferring portfolio and the receiving portfolio were each required to do. "We didn't have anything written down," he said, describing the absence of a defined transition playbook.

An LFBO analyst had been assigned to monitor SVB before the formal transition, and Reserve Bank personnel were expected to communicate across the two portfolios. But the interviewees with whom Starling spoke were unable to recall precisely how the transition was governed, who was responsible for ensuring the necessary handoff occurred, or what records would establish that the expected coordination had taken place at all.

[Board Staff 8] recalled that the difficulty became apparent after the transition from RBO to LFBO, when supervisors began referring to a "cliff effect." The working assumption had been that the principal change for a domestic firm entering LFBO would involve its preparation for enhanced prudential standards. "And in fact, it turned out to be more than that," [Board Staff 8] explained. LFBO staff realized: "Whoa, we were a lot less prepared for this transition." SVB was found not to be at the supervisory baseline LFBO personnel had expected it to have prior to the transfer.

[Board Staff 8] said that, to her knowledge, there had been no known concern at the time regarding the quality of RBO supervision of SVB. "It was after the transition that we realized that this satisfactorily rated firm in fact was not." A targeted liquidity review conducted after the transfer revealed not only that SVB was poorly prepared to satisfy enhanced prudential standards, but that it also failed to meet basic liquidity-risk-management expectations that should have applied while it remained in the RBO portfolio.

The subsequent treatment of SVB's first LFBO Liquidity rating provides perhaps the interview's clearest illustration of the Barr Report's criticism.

[Board Staff 7] recalled that the Dedicated Supervisory Team's Central Point of Contact (CPC) initially proposed a Deficient-1 rating following the first LFBO liquidity examination. The proposal rested substantially upon the conclusion that SVB was not meeting even the liquidity-risk-management expectations applicable to an RBO institution. [Board Staff 7] and [Board Staff 9] agreed with the proposed rating.

According to [Board Staff 7], however, FRBSF leadership was "adamant about not issuing the deficient rating" until supervisors had conducted further assessment, and SVB had completed its first Horizontal Liquidity Review. The resulting rating assigned was Conditionally Meets Expectations. "This rating was a wrong call in my opinion," [Board Staff 7] said.

The episode closely resembles the condition described in the Barr Report. The supervisory concern had been identified; the field supervisor had proposed a rating reflecting its severity; and the responsible Board personnel agreed. Yet the authoritative supervisory judgment was deferred while the institution accumulated additional evidence through another review.

[Board Staff 7] appropriately qualified the causal significance of that decision. He did not contend that assigning the deficient rating would necessarily have prevented SVB's failure. "Again, from big picture perspective," he said, "I don't think rating the firm Deficient would have prevented the ultimate failure." But it was, in his judgment, "one piece that we clearly missed to make the right call."

Looking back more broadly, [Board Staff 7] concluded: "From my perspective, I think we were slow." Supervisors were slow to provide SVB with "the right message, and a strong message," he said, and should have acted more quickly in assigning ratings and communicating the severity of their concerns. He pointed as well to the enforcement action that was never issued before the bank failed. "It could have been a lot faster," he said, "but we were sitting on it for so long" because of what he described as "structural procedural flaws."

[Board Staff 6] agreed that supervisors should have moved more quickly to change SVB's ratings. He also identified a more difficult supervisory judgment that the institution failed to make with sufficient force: recognizing that the bank's business model itself had become unsustainable. Supervisors needed to be able to tell an institution: "Your business model is really broken, and you need to do something about it." Acting "much faster on that way up," as SVB constructed its balance sheet during 2021, might have allowed the Federal Reserve to confront the underlying vulnerability before the available options had narrowed.

[Board Staff 8] highlighted a related difficulty. Once supervisors identified a large number of deficiencies at an institution, the resulting findings did not necessarily communicate which vulnerabilities posed the greatest danger or required the most immediate remediation. "When you push on everything, the firm can't address it," she explained. "They're just overwhelmed, because we come in and we say, 'Now congratulations. Now you have 30 MRIAs.' And they don't know what to fix first."

Supervisors identified many genuine weaknesses at SVB, [Board Staff 8] observed, but "did not correctly identify the interest-rate risk" that may have precipitated the crisis. Other identified weaknesses might also have produced failure, under different circumstances; in her assessment, "[t]his was a very poorly run firm." [Board Staff 6] emphasized that the fundamental weaknesses exposed after the LFBO transition were not merely matters of enhanced prudential standards: "That wasn't an EPS issue though, that's fundamentals."

Their collective recollections suggest that the Federal Reserve's extensive supervisory activity failed to produce a sufficiently prioritized, authoritative, and timely message regarding the vulnerabilities that most urgently threatened the bank.

Most significantly for present purposes, the interviewees did not describe the underlying S&R governance problem as having yet been resolved.

[Board Staff 8] expressed greater confidence that, following the Barr, GAO, and OIG postmortems, LFBO personnel were more alert to firm-specific and emerging risks across the portfolio. But, as of our June 2026 interview, she did not believe there was "better clarity on kind of whose job it is to do what and where authority lies." Her conclusion was direct: "The governance issues persist."

Interview with [Board Staff 13]

The ambiguity described by [Board Staff 8], [Board Staff 6] and [Board Staff 7] was considered further in Starling's June 3rd 2026 interview with **[Board Staff 13]**.[161] Having occupied roles at both the Board and a Reserve Bank, [Board Staff 13] was positioned to describe not only how supervisory authority appears on an organizational chart, but how that authority is experienced by those expected to exercise it.

Asked about the respective responsibilities of the Board and the Reserve Banks, [Board Staff 13] began bluntly: "They're conflicting halves, let's be clear."

[Board Staff 13] distinguished among the Federal Reserve's supervisory portfolios. Supervision of the largest and most systemically important institutions was organized as a national program, heavily directed from the Board. In the governance structure she understood to apply there, the official leading the portfolio was the ultimate decision-maker; "the buck stops with that person." Where disagreement remained, the matter could be elevated to the Vice Chair for Supervision.

Responsibility was less clearly situated in the other portfolios, however. In the regional- (RBO) and community-bank (CBO) programs, [Board Staff 13] characterized the Board's message to the Reserve Banks as: "Go do your supervision. If you have questions, come here."

LFBO occupied an intermediate position. Reserve Banks remained responsible for executing supervision, but Board personnel participated in rating vettings, horizontal examinations and other portfolio-level judgments capable of affecting the result.

A Board portfolio leader who disagreed with a Reserve Bank could challenge its position and elevate the matter, [Board Staff 13] explained. However, "most Reserve Banks would probably say, 'Okay, we'll do what you want.'" Formal authority might remain delegated, but the Board's capacity to review the resulting judgment and the Reserve Bank's performance gave its views substantial practical force.

That influence did not necessarily bring corresponding accountability. [Board Staff 13] believed that, when a bank failed, responsibility tended to "roll down to the Reserve Bank," even where Board analysts had participated in the underlying supervisory assessment. She described her relevant experience:

"I think my eyes have been opened, since I've been here [at the Board], to really how much it doesn't matter if you call and say, 'Hey, Board analyst, I'm going to do this. Are you cool with it?' And they say, 'Yes.' That's not going to cover you. And I think, in the past, Reserve Banks may have thought it did." [Board Staff 13] summarized the resulting arrangement as one in which "there is delegation and you'll be held accountable for that delegation." Yet the consultation expected before exercising that authority could make the delegation less complete than it appeared.

A Reserve Bank Head of Supervision could, in principle, act without securing Board agreement. But doing so required judgment concerning which disagreements warranted escalation and whether the

[161] Appendix A-17, [Board Staff 13], 3 June 2026.

institution was prepared to expend "political capital" in a dispute with Board personnel. A Head of Supervision at a Reserve Bank who brought every disagreement to Washington might invite questions about why the role had been delegated at all.

Most Reserve Banks would nevertheless consult the responsible Board analyst on an important matter, [Board Staff 13] said. That analyst, however, did not possess authority to decide: "The analyst is not going to make a decision either. They're going to talk to somebody higher than them, and then however high it's going."

[Board Staff 13] described the expected chain. A Central Point of Contact ("CPC") at a Reserve Bank communicated with the Board analyst assigned to the institution. The analyst could elevate an issue to the portfolio head; the portfolio leader could take it to the responsible Deputy Director; the Deputy Director could refer it to the Division Director; and the Division Director could seek direction from the Vice Chair for Supervision. Participants might be skipped in practice, and a sufficiently confident official might act without appealing upward across the entire chain. But that was the general path through which an unresolved concern was expected to move.

This formal hierarchy suggests that authority was not entirely absent. [Board Staff 13] believed the Division Director "would clearly have authority to act." And if the Director remained uncertain about the appropriate course of action, "they should ask the Vice Chair, ultimately." [Board Staff 13]'s unanswered questions concerned the operation of that authority chain in the case of SVB: "Where did that communication stop?" How did the concern reach the Board's agenda? When did the Division Director become aware of it? And was it discussed with the Vice Chair?

The distinction is important. [Board Staff 13]'s account does not support an assertion that no official possessed the legal or organizational authority to act. It instead suggests that participants below the Division Director often remained uncertain about whether they should exercise delegated authority, continue consultation, gather more support, or push the issue further upward — and that the available record did not make clear where the matter ultimately came to rest.

> **"I think the authority part was definitely unclear.**
>
> [Board Staff 13]

[Board Staff 13] stated the point directly: "I think the authority part was definitely unclear."

She illustrated that uncertainty through her recollection of the Deputy Director for Supervision when SVB failed. [Board Staff 13] was asked about an anecdote recounted to Starling, in which the former Deputy Director had expressed frustration that she was "not a decision-maker around here."

[Board Staff 13] emphasized that she could offer only her own perception of the circumstances. The former Deputy Director for Supervision appeared on the organizational chart as responsible for major supervisory functions, [Board Staff 13] explained, but at the same time she was not necessarily situated within the governance bodies where particular decisions were made. “She’s responsible,” [Board Staff 13] observed, “but they’re not coming to her in any way for any decision-making.”

Such circumstances could leave an official accountable for a function without possessing a defined place in the process by which the function they occupied permitted them to exercise authority.

Enforcement presented a similar difficulty. [Board Staff 13] recalled occasions when the former Deputy Director for Supervision might have believed that an enforcement action was necessary while Board Legal took a more conservative view. “I remember saying, ‘[Name], whose decision is it?’” [Board Staff 13] said. “I don’t think it was clear.”

[Board Staff 13] believed that the former Deputy Director for Supervision handled much of the Division’s daily work and elevated to the then-Division Director only those matters she regarded as requiring his attention.

The former S&R Director, in [Board Staff 13]’s recollection, “was not in the weeds at all.” That arrangement may have been operationally sensible, but it placed considerable weight upon the Deputy Director for Supervision’s judgment as to when a matter had become significant enough to require the intervention of an official possessing clearer authority.

The relationship between the Board’s Risk function and its supervisory portfolios, [Board Staff 13] offered, created a horizontal counterpart to this vertical ambiguity.

[Board Staff 13] described Risk as a group intended to look across supervisory portfolios, to identify emerging concerns, and to tell the personnel responsible for the affected institutions: “These are risks that we’re seeing in your portfolio and you should follow up on these risks.” Risk did not itself conduct the institution-specific examinations or control the supervisory portfolio, [Board Staff 13] said. The head of the responsible portfolio could either accept the warning from Risk and redirect work, or respond: “Thank you. We’ve got it.”

[Board Staff 13] believed that Risk had raised concerns relevant to SVB to the head of the LFBO portfolio, but she did not know when the concerns were raised, whether they were sufficiently timely, or precisely how the portfolio lead responded. “They said something to the portfolio,” she observed, “and the portfolio did whatever, either something, or nothing. I don’t know.”

This qualification is significant. While [Board Staff 13] did not independently corroborate the specific chronology offered to Starling by [Board Staff 3], her description confirms the structural limitation central to [Board Staff 3]’s account: Risk could identify and communicate a concern, while authority to change a firm-specific supervisory response remained with the portfolio lead and Reserve Bank personnel responsible for the firm’s oversight.[162]

[Board Staff 13] explained further that the LFBO portfolio also possessed specialist groups conducting horizontal examinations and evaluating particular risk areas. Those groups operated

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[162] Appendix A-3, [Board Staff 3], 15 June 2026.

within a governance structure led principally by the portfolio leadership. [Board Staff 13] recalled that this created the potential for overlapping assessments between the Board-wide Risk function and the portfolio's own risk specialists, although she was unclear whether the two groups had disagreed over SVB.

Here again, the difficulty was not the existence of multiple perspectives. It was the absence of a clear mechanism for determining whose assessment should control when perspectives diverged.

Enforcement introduced yet another institutional boundary. [Board Staff 13] recalled that Enforcement attorneys had once sat within S&R at the Board. Following OIG criticism of delays, however, the Enforcement function was transferred to the Fed's Legal Division. [Board Staff 13] remembered reacting to that recommendation: "Oh, no." In her experience, the enforcement process became "even slower."

"Enforcement was very slow," [Board Staff 13] said. She did not know the relevant timelines for SVB and did not attribute the unfinished MOU to any particular Legal official. Her point was broader: the transfer of a matter from supervision into a separate Legal process could produce further disagreement concerning both the substance of the action and the speed with which it should proceed.

[Board Staff 13]'s account therefore identifies several points at which a supervisory concern could lose momentum without any participant necessarily deciding that it should be abandoned.

The Reserve Bank could hesitate to exercise delegated authority without Board support. The Board analyst could receive the concern but lack authority to resolve it. The portfolio leader could seek additional consensus or elevate the matter. Risk could warn the portfolio without being able to compel a response. The Deputy Director for Supervision could carry functional responsibility without occupying a clear place in every decision-making structure. The Division Director for Supervision might possess ultimate authority but remained relatively removed from the daily work. And a proposed enforcement action could enter a slow legal process in which the required evidentiary burden and remedial judgments were re-examined and often considered wholly anew.

[Board Staff 13] reduced the problem to the meaning of delegation itself. "I think you have to get behind what 'delegated authority' meant to you," she said.

"There is a fundamental definitional problem that we have pretty much wrangled with forever since I've been in this organization," [Board Staff 13] said. In her assessment, "everybody knows the real answer is [that] the Board's responsible, that stuff's delegated," but the Board had nevertheless sought to accommodate the Reserve Banks receiving that authority.

[Board Staff 13] captured the opposing perspectives succinctly. From the Board's position: "I delegated that to you and your bank failed; you have a problem." From the Reserve Bank's position: "You delegated to me, but you're responsible for directing the decisions and you do oversight of me; so you're responsible." This reciprocal attribution of responsibility is perhaps the clearest expression of the accountability problem under Starling's current examination.

Each side could plausibly identify authority or oversight residing with the other. Consultation made supervisory judgments collective enough to diffuse accountability, while delegation made the consequences individual enough to permit responsibility to be assigned downward after failure.

[Board Staff 13] contrasted this history with the supervisory reorganization underway at the time of her interview. Under Vice Chair Bowman, she said, strategic direction was coming more directly from the top, and personnel were attempting to implement changes without constructing another elaborate collection of governance bodies and workstreams.

Her description of the current approach was revealing: "It has to get done. And I guess I feel like I'm taking the authority to do it," she said. "Now, I may not do it right, and there'll be consequence from that, but I feel like we're in that stage right now."

[Board Staff 13] also identified the evidence required to move Starling's Probative Inquiry beyond general institutional diagnosis.

There "should be a whole chain of events," she said, including communications between the Reserve Bank and the Board, approximate dates of conversations, the concerns conveyed, and the responses received. If a matter reached a Board analyst, the inquiry should determine what the analyst did with it and to whom it was passed. "There should be a weak, but some paper trail," [Board Staff 13] observed.

Our interview with [Board Staff 13] did not aim to identify an individual who may have failed to act upon a particular warning at SVB. Rather, it explored why the formal allocation of supervisory authority cannot provide any reliable answer to that question, and why retrospective statements that seek to suggest that such responsibility lay simply with either the FRBSF or the Board are insufficient.

[Board Staff 13]'s testimony therefore substantially supports the diagnosis of a deliberative, consensus-driven supervisory environment, while sharpening its meaning.

Consensus did not eliminate formal authority. It raised the practical cost of exercising that authority, complicated the path by which disagreements were resolved, and permitted responsibility for the eventual outcome to be contested between the Board and the Reserve Bank. The central question, thus, is not whether supervisory authority had been delegated as a formal matter; it is what each participant understood that delegation to permit and require.

Interview with [Board Staff 4]

[Board Staff 13]'s account raises a further question. If uncertainty concerning decision-rights — authority, accountability, and responsibility — was longstanding and widely recognized within the Federal Reserve, what had the institution attempted to do about such challenges before SVB failed?

Starling explored that question with **[Board Staff 4]** on June 3rd 2026.[163] [Board Staff 4]'s responsibilities within S&R include the business-enablement and operational functions intended to support the

[163] Appendix A-4, [Board Staff 4], 3 June 2026.

Division's supervisory work. [Board Staff 4] participated in an initiative at that time known as the "Future of Supervision."

The initiative appears to have begun during 2020, under the then-Division Director. It was designated a High-Priority Initiative ("HPI") through the Division's strategic-planning process, and a committee responsible for Strategy, Planning, and Performance developed the relevant priorities. The Supervision Committee considered those, and the resulting recommendations proceeded to the Division Director for sign-off.

The "Future of Supervision" initiative had thus begun before [Board Staff 4] arrived at the Fed, but her experience provides a firsthand account of how the institution attempted to diagnose and reform many of the same governance problems later identified in the Barr Report.

[Board Staff 4] explained that she inherited responsibility for the initiative from her predecessor. By the time [Board Staff 4] arrived, in August 2021, the project had already been underway for several months and yet, [Board Staff 4] recalled, "we were still wordsmithing the charter. That's how much progress had been made." In other words, months in, and the initiative's sponsors had not yet settled the document defining its purpose, scope, membership, and working arrangements.

The initiative thus reflected the very institutional complexity it was intended to examine. The initiative's sponsors included [Board Staff 4], the Deputy Director for Supervision, representatives of the Reserve Bank Heads of Supervision, and personnel from the Division of Consumer and Community Affairs ("DCCA"). That second division was relevant because supervisory responsibility at the Federal Reserve is itself divided between S&R and DCCA and, through them, between two different Board Governors.

"The two supervisory functions are actually split between two divisions and two oversight Governors," [Board Staff 4] explained, "which creates a lot of confusion." She added that the arrangement "remains true" today. Reserve Bank Heads of Supervision may therefore receive direction from different Governors depending upon the type of supervisory work involved.

At the same time, Reserve Bank budgets, personnel and technology platforms support both functions. In [Board Staff 4]'s account, this creates recurring tensions regarding priorities, resource allocation and whose direction should govern a Head of Supervision responsible for multiple mandates.

The Future of Supervision project was intended to take a broader view of these arrangements. [Board Staff 4] understood it as an opportunity for the Federal Reserve to pause its daily work, assess its organizational health and determine whether it was prepared to supervise effectively in a changing financial environment. The inquiry was to consider matters ranging from technology required to support S&R's operations, to its reliance upon numerous committees to coordinate work across the Board and Reserve Banks.

The project was not intended merely to produce a diagnosis. Rather, a "Current State Assessment" was to be paired with an evaluation of the supervisory environment and recommendations for organizational change. “Here’s what we think the future looks like, and here’s how we need to change to get better,” [Board Staff 4] recalled as the intended second stage of the effort.

But the initiative struggled to determine what it was. [Board Staff 4] recalled extensive discussion about “membership, scope [and] process”: whether the appropriate interests were represented, who would vet the work, whether the initiative should focus principally upon S&R’s internal operations, and whether it should examine supervisory decisions and outcomes more directly.

The project’s scope expanded and contracted repeatedly. “That’s why we spent so much time figuring out what is this thing we’re trying to do,” [Board Staff 4] explained.

The participants also debated whether to retain an outside party to support the effort. They considered the potential scope of work, possible contractors, and available contracting vehicles. [Board Staff 4] advocated strongly for external assistance, but none was ultimately retained.

These debates were not frivolous. A review intended to reconsider the future of Federal Reserve supervision necessarily presented difficult questions concerning breadth, representation and institutional legitimacy.

But the process also illustrates the practical danger of requiring agreement upon every feature of an inquiry before permitting the inquiry to advance — something Starling has experienced directly throughout the course of our present efforts.[164]

Several work products eventually emerged. The “Future of Supervision” team ran a survey to help identify who was Responsible, Accountable, Consulted and Informed — the familiar “RACI” framework — for important supervisory functions. Initiative sponsors held an internal conference, “Verge,” solicited ideas from personnel across the Reserve Banks through an “IdeaScale” campaign and produced a draft “Current State Assessment” dated March 2023 — shortly before SVB’s failure.

[Board Staff 4] remembered the RACI exercise as principally confirming what personnel within the institution already understood. “We are complicated,” she said. “But how complicated do we need to be?” The exercise also captured “the level of consensus required” to progress things and the persistent tension between the Board and the Reserve Banks over “who does what,” [Board Staff 4] said.

[Board Staff 4] did not recall the RACI presentation culminating in a determination of what changes should ensue. She recalled a meeting at which the initiative’s results were presented and discussed, but not a corresponding conclusion: “Here’s what we should do about it.”

The initiative’s work also remained concentrated among senior personnel. Although the project had been formally identified as an “HPI” and information about its existence was circulated through the Federal Reserve System, [Board Staff 4] doubted that personnel outside the governing committees had any substantial visibility into its progress.

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[164] Starling Advisory, *2023 Stress Events Probative Inquiry Interim Briefing #2*, 19 June 2026.

“We do, here, have a culture of being really top-heavy,” [Board Staff 4] explained — not necessarily in the number of senior officials, but in the tendency to keep organizational initiatives within the confines of the Supervision Committee and the layer immediately beneath it. Staff personnel were rarely involved directly in the design of such initiatives, [Board Staff 4] observed.

As a result, many employees may have known that the Future of Supervision effort existed, without possessing “much of a line of sight at all into what was happening.”

The drafting process supplied another illustration of the prevailing culture. [Board Staff 4] recalled “very serious concern about the words on the page” and how they might be received outside the Federal Reserve. She described a broader institutional “fixation” upon “guarding against potential negative perception,” more pronounced than she had encountered at other federal agencies where she had worked earlier in her career.

[Board Staff 4] did not attribute that sensitivity to any particular official or function. Nor did she suggest that concern about public interpretation is inherently improper. A central bank and supervisory authority must exercise care in how it characterizes its own operations. But [Board Staff 4] regarded the degree of sensitivity as problematic, particularly where it impeded candid diagnosis or agreement over language.

The “Current State Assessment,” for example, went through multiple drafts. [Board Staff 4] suggested that comparing those drafts might reveal for Starling who intervened, which formulations changed, and how the final discussion draft differed from its earlier versions. Her observation points toward a useful evidentiary inquiry: not merely what the assessment ultimately said, but what the institution proved unwilling to say, who objected, and whether efforts to protect against external criticism altered the force of the diagnoses ultimately reached.

Eventually, the sponsors assigned an experienced Board officer [name as yet to be determined] to work full-time on the “Current State Assessment,” joined by a Reserve Bank colleague [name as yet to be determined]. The decision reflected their recognition that “no one’s holding the pen on this,” [Board Staff 4] said, and that the initiative required personnel able to dedicate sustained attention to it.

Even then, [Board Staff 4] recalled, progress was difficult because “nobody can actually ever give up the pen on anything.” A person might be assigned primary drafting responsibility, but the number of participants retaining an effective claim upon the work made it difficult to move forward decisively.

When the principal Board officer [name unknown to Starling] later accepted another position and left the Federal Reserve, the project “kind of fizzled.”

The HPI also suffered from what Federal Reserve personnel call “side-of-desk work”: employees accountable for demanding day-to-day responsibilities were assigned important additional initiatives without being relieved of their principal duties. “It is a real problem,” [Board Staff 4] said. “We have a real hard time dedicating people to do a job that needs doing that’s not their day job.”

When employees were evaluated and held accountable principally for their ordinary responsibilities, the additional initiative could not consistently command their attention, regardless of its designation as "high priority," [Board Staff 4] explained. Although participation might ultimately support an award or recognition, [Board Staff 4] did not recall an incentive structure specifically tied to completing the HPI.

SVB's failure supplied the immediate reason that the "Future of Supervision" initiative ended: supervisory personnel stopped work not directly related to the crisis and concentrated upon the affected banks. But [Board Staff 4] did not regard the SVB crisis as the whole explanation for the HPI's demise. By the time SVB failed, the "Future of Supervision" initiative had already failed to acquire the momentum necessary to complete the work intended, [Board Staff 4] said.

"I would also posit that it fell under its own weight," [Board Staff 4] said. "I think it lost momentum, and it lost momentum because we never had momentum. It just became too much of a quagmire, everything, no driving force, that it just failed."

Asked whether the project had been stalled, [Board Staff 4] offered a revealing correction. "In the confines of how we operate," she said, "it was moving at pace." The initiative was proceeding normally, by the institution's own standards. Its extended charter negotiations, repeated drafting, distributed sponsorship, gradual progress, and slow but eventual demise reflected the ordinary method by which the Federal Reserve tends to conduct such work, [Board Staff 4] argued.

> **"Accountability and authority almost never go together.**
>
> [Board Staff 4]

In that sense, [Board Staff 4] agreed, the initiative became "a victim of the problem it [was] trying to solve."

The Future of Supervision effort also reinforced [Board Staff 4]'s broader concern that accountability and authority were routinely separated within S&R. Ideally, she argued, the Vice Chair for Supervision would establish the policy direction — "This is what you need to be doing, this is what I want you all to do" — and the Division Director would be responsible for constructing an organization capable of delivering upon that direction. But assigning responsibility below that level did not necessarily confer power to act, [Board Staff 4] argued. "Accountability and authority almost never go together," she said. If the Division Director assigned her responsibility for redesigning the organization, [Board Staff 4] explained, "I am accountable. I have zero authority."

Ultimate authority rested with the Governors. How that authority passed through the organization and could be delegated effectively was, in [Board Staff 4]'s words, "unclear." Asked whether she believed the Governors themselves possessed a clear understanding of that delegation, she answered: "No."

[Board Staff 4] contrasted this daily condition with the Federal Reserve's performance during a crisis. She repeatedly heard it said internally that the institution was "really good in a crisis" — an assessment with which she agreed. The reason was not that crisis suddenly supplied personnel with greater expertise. Rather, the institution temporarily changed how it worked, [Board Staff 4] said.

Amidst crisis, processes considered unnecessary were stripped away or bypassed. Fewer people participated, because decisions had to be made quickly. The institutional "need for perfection" diminished, and "the bar for acceptable comes down, which enables more to get done faster."

The cadence of work changed as well. In ordinary circumstances, [Board Staff 4] observed, an issue might prompt the response: "Let's have the pre-meeting in three weeks and then the meeting again after that." Crisis therefore did more than increase urgency. It temporarily narrowed participation, relaxed the requirement for consensus, and permitted identifiable individuals to act swiftly with imperfect information — precisely the characteristics the Barr Report argues were missing from the supervision of SVB before its condition became acute.

[Board Staff 4] reduced the required reform to a simple proposition: "We need clear decision makers to make decisions. That's what we need. And that's what we struggle with. It's that simple."

Her preferred structural remedy was correspondingly direct. If permitted to make one fundamental change, [Board Staff 4] would realign the supervisory functions within the Reserve Banks so that each possessed "a clear line directly and only to the Vice Chair for Supervision." In her view, the currently split reporting lines were what "allows for this confusion of who gets to make decisions." A direct supervisory line to the Vice Chair would not solve every problem, [Board Staff 4] allowed, but it would provide "the overlay of clarity that would allow all the other problems to be solved."

"I don't think we've ever actually gotten to the point of trying remedies," [Board Staff 4] concluded. "We've never even tried because we don't get that far."

[Board Staff 4]'s account of a reform initiative becoming "a victim of the problem it [was] trying to solve" brings us appropriately back to [Board Staff 14], the principal staff author of the Barr Report.[165]

Looking back upon that review with three years' distance, [Board Staff 14] identified one inquiry he would pursue more fully if given additional time: "Probably more on the actual decisions, about who made which decision about which things to pursue or not to pursue."

The Barr Report documented supervisory observations, examinations, findings, ratings, and contemplated enforcement measures. What it reconstructed less fully were the decision-making processes connecting them. As [Board Staff 14] explained, Risk personnel, firm-specific supervisors, portfolio leadership, Reserve Bank officials, Board staff and Legal each brought "different experiences, different comparison points, different frames of reference." But the more difficult question was: "For any given decision, who actually said, 'We're going to escalate this or not escalate that'?"

That question becomes especially consequential where the record reflects prolonged activity without a completed supervisory decision.

[Board Staff 14] pointed to the proposed MOU as an example. He remembered no material disagreement between the documentary and testimonial records concerning the basic chronology. But

[165] Appendix A-11, [Board Staff 14], 30 April 2026.

he remained unable to identify the person who determined that the action was not yet ready: “Why did the MOU at the firm take six or seven months to get finalized? I don’t know. Who was the person who actually said, ‘No, it’s not ready yet?’”

[Board Staff 14] framed the unfinished Barr inquiry succinctly: “Who made which decisions? Were they in the right positions, with the right information, with the right incentives, to make good decisions? We know things took time. Why?”

“I don’t know the answer to the question of ‘why did the MOU take so long to get executed,’” [Board Staff 14] said. “It took months to draft, redraft, continue to build evidence for an MOU for a $200 billion firm. [And] yet it took a weekend to vote on a Systemic Risk Exception, including the Treasury, the FDIC, and the Fed…?” he wondered aloud.

“Could people maybe not have moved as fast because of lots of the institutional culture issues, the consensus environment,” [Board Staff 14] asked rhetorically. “Sure.” This reinforces [Board Staff 4]’s observation that the Federal Reserve becomes capable of acting rapidly when crisis supplies unmistakable urgency, narrows participation in decision-making, and clarifies the necessity of reaching a decision.

The recurrence of these problems gave [Board Staff 14] particular concern. In preparing the Barr Report, his team reviewed post-Financial Crisis lessons-learned materials and found “many of the same issues” that he witnessed in the review he led in 2023. [Board Staff 14] imagined a future review, perhaps conducted in 2031, rediscovering that same earlier work, the Barr Report, and Starling’s present work, only to document the same institutional weaknesses once again.

“But actually getting things to change,” he observed, “how do you do that is much harder.”

6. "A shift in the stance of supervisory policy impeded effective supervision"

The established public narrative advanced in the Barr Report holds that the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 ("EGRRCPA"), together with the "tailoring" rules adopted under then-Vice Chair for Supervision Randal Quarles, produced "a weaker regulatory framework" for firms such as SVB.[166]

EGRRCPA altered the prudential standards governing the regulation and supervision of large banking organizations. It raised from $50 billion to $250 billion the asset threshold at which enhanced prudential standards applied automatically, while preserving the Federal Reserve's authority to apply tailored standards to firms holding between $100 billion and $250 billion in assets according to their size, complexity, and risk profile.

The Barr Report contends that the Board's implementation of this authority placed firms such as SVB within a materially less demanding regulatory and supervisory framework. By its account, the resulting regime reduced applicable standards, delayed their application as SVB grew, increased the complexity of the regulatory framework, and encouraged a less assertive supervisory posture.

"Tailoring" was therefore not an incidental feature of SVB's regulatory and supervisory history. The Barr Report argues that it removed or delayed particular regulatory requirements and supervisory processes that might have exposed or constrained SVB's vulnerabilities earlier.

Among the four principal conclusions advanced by the Barr Report, this is the least directly corroborated by the GAO and OIG postmortems.

Treatment of EGRRCPA by the GAO

The GAO Report assigns substantially less causal weight to EGRRCPA and regulatory tailoring than does the Barr Report. Its treatment is principally descriptive. In a footnote, the GAO explains that EGRRCPA raised from $50 billion to $250 billion the threshold at which enhanced prudential standards applied automatically and authorized the Federal Reserve to tailor the regulation of firms with between $100 billion and $250 billion in assets. The Board's implementing rules placed SVB within Category IV, making it subject to the "least-stringent enhanced prudential regulation requirements" applicable to banking organizations with more than $100 billion in assets.[167]

The GAO nevertheless identifies evidence suggesting that the supervisory framework applicable to SVB before its transition into the LFBO portfolio may have affected the intensity of its supervision.

When SVB crossed into the LFBO portfolio in June 2021, unnamed Federal Reserve staff told the GAO, SVB became subject to a larger dedicated examination team — including an examiner specifically

[166] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 13.
[167] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, 19.

assigned to liquidity — and "more rigorous supervisory requirements." Once SVB became subject to that more intensive framework, supervisors identified liquidity and management deficiencies that had not previously been identified through the RBO supervisory program.[168]

The GAO also reports that, in scoping its August 2021 liquidity review, FRBSF acknowledged that it had conducted only limited supervisory work on liquidity and stress testing during the preceding two supervisory cycles.[169]

In explaining that limited work, FRBSF cited two contributing circumstances: the pandemic-related pause in RBO examinations and the tailoring of enhanced prudential standards, which had resulted in less stringent regulation for institutions within the RBO portfolio. The ensuing LFBO liquidity review identified "foundational shortcomings" in SVB's liquidity stress testing, limits framework, and contingency funding plan.[170]

These observations provide some support for the proposition that a lower-intensity regime delayed the discovery — or at least the formal recognition — of deficiencies at SVB. But the GAO does not convert that evidence into a finding that EGRRCPA, the Board's implementing rules, or the broader policy of tailoring materially caused SVB's failure.

Notably, the explanation concerning the effects of tailoring comes from FRBSF's own supervisory memorandum; it is not presented as an independent causal conclusion reached by the GAO. The GAO expressly deferred that question, stating that it intended to examine in future work how SVB's Category IV designation affected its supervision before failure.

In placing the 2023 failures within the context of its earlier work on untimely supervisory escalation, the GAO recalls its 2011 finding that the Prompt Corrective Action ("PCA") framework relied upon capital measures that were lagging indicators of bank health and might therefore compel intervention only after recovery had become difficult.[171]

The GAO recommended that federal banking regulators consider additional, noncapital triggers tied to unsafe banking practices that would require "early and forceful regulatory actions." Although regulators established a working group and made other changes to the framework, they did not implement noncapital triggers of the kind the GAO had proposed for consideration.

Thus, the GAO Report provides qualified and circumstantial support for the Barr Report's account.

It records circumstances consistent with SVB having received less intensive scrutiny while in the RBO portfolio and observes that serious liquidity and management deficiencies were identified after SVB entered the more demanding LFBO regime.

[168] Ibid., 19.
[169] Ibid., 20.
[170] Ibid.
[171] Ibid., 27.

But it does not conclude that EGRRCPA or regulatory tailoring caused that result. Rather, the GAO situates these events within a longstanding supervisory problem extending across regulatory agencies and predating the 2018 legislation: regulators could identify material weaknesses without converting that knowledge into timely ratings changes, enforcement measures, or other actions capable of compelling remediation before a bank's condition deteriorated beyond recovery.

Treatment of EGRRCPA by the OIG

Unhelpfully, the OIG uses "tailoring" in two materially distinct senses. First, it uses the term in connection with the categorical reduction in regulatory and supervisory intensity that followed EGRRCPA and the Board's 2019 implementing rule. The OIG found that firms holding less than $100 billion in assets — including SVB before it crossed that threshold — were no longer subject to enhanced prudential standards, and that RBO examination teams were expected to supervise larger and smaller institutions within that portfolio in substantially the same manner.[172]

A Board official interviewed by the OIG described the resulting examination framework as becoming "more 'small bank like' and less intense," with institutions holding $10 billion and $95 billion in assets treated substantially alike. Notably, the OIG did not identify that official by name, title or organizational unit.[173]

The OIG nevertheless found that the expansion of the RBO portfolio was not accompanied by additional guidance or training for examiners responsible for the larger institutions newly included within it.[174] The OIG also found that management allocated insufficient examiner resources and hours to SVB, and that the assigned RBO examiners lacked sufficient experience supervising large and complex institutions.[175]

But the OIG also uses "tailoring" to describe the institution-specific intensification of supervision that *should have occurred* at SVB. In this second sense, a "more-tailored supervisory approach," the OIG argued, would have departed from the categorical treatment of SVB as merely another RBO and accounted for its rapid growth, concentrated business model, increasing complexity and distinctive risk profile.[176]

Such an approach would have involved additional examiner resources and hours, greater large-bank expertise, more robust examination work, and supervisory planning directed toward SVB's salient vulnerabilities. The OIG concluded that this stronger, risk-responsive tailoring might have enabled examiners to identify the severity of SVB's problems earlier, supported earlier CAMELS downgrades, and perhaps prompted more decisive supervisory action.

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[172] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank*, 31.
[173] Ibid.
[174] Ibid.
[175] Ibid., 32.
[176] Ibid., 30.

Read as a whole, the OIG's criticism was not that tailoring was inherently bad policy. It was that the categorical "tailoring" following EGRRCPA reduced the baseline level of supervision, while the Federal Reserve failed to exercise the supervisory judgment needed to "tailor" that baseline upward for an outlier such as SVB.

Importantly, the OIG does not isolate EGRRCPA as a sufficient explanation. It treats the post-EGRRCPA supervisory framework as one of several factors that prevented RBO supervision from evolving with SVB's growth and increasing complexity — alongside inadequate resources, insufficient expertise, and the pandemic-related examination pause. And it argues only that stronger tailoring "may" or "could" have changed the supervisory response, not that EGRRCPA alone caused the supervisory failures evident at SVB. Its position is therefore more qualified than the broader causal proposition advanced by the Barr Report.

Interview with [Board Staff 2] (revisited)

It should be recalled that **[Board Staff 2]** was a principal co-writer of the Barr Report, working under the direction of lead writer [Board Staff 14]. [Board Staff 2] described his responsibility set as having led the work regarding supervision, rather than regulation or other topics considered by the Report.

In that context, we discussed the Barr Report's conclusions regarding the impact of EGRRCPA and tailoring on supervision at SVB.[177] That discussion addressed two related questions: how supervision changed as an institution crossed the post-EGRRCPA portfolio thresholds, and how supervisory personnel interpreted the policy signals associated with Vice Chair Quarles.

On the first question, [Board Staff 2] resisted the idea that supervision necessarily changed through an abrupt categorical break when a bank moved from one portfolio to another. Outside the rules and reporting requirements triggered at particular thresholds, [Board Staff 2] described supervisory intensity as something that should increase progressively with an institution's size, complexity, business activities, and risk:

"I don't find that there is a hard cutoff for the portfolio lines in terms of how the supervision is done. There is a migration," he said.

As an institution grows, [Board Staff 2] explained, supervisors can increase examination frequency, assign more dedicated personnel, add specialist expertise, undertake targeted examinations and expand continuous monitoring. "More intensity means more exams and more monitoring touchpoints," he said. "We spend more hours on the firm based on size, complexity, and risk. We also add more expertise."

[177] Appendix A-2, [Board Staff 2], 5 May 2026.

Importantly, [Board Staff 2] observed that these measures could be employed before a statutory threshold was crossed: "you can have increased expectations given a business below the Dodd-Frank line."

[Board Staff 2] nevertheless recognized "a bit of a jump" at the $100 billion threshold, when additional stress-testing, risk-management and reporting requirements became applicable. But he identified a potential paradox in the resulting intensification. The data, reporting, and process demands associated with enhanced prudential standards could absorb the attention of banks and supervisors.

"The data and process issues as Enhanced Prudential Standards come into play seem to overwhelm supervisors and banks, distracting from levels of or concentrations in risk," [Board Staff 2] said.

That observation complicates any assumption that the earlier application of more demanding standards would necessarily have directed supervisory attention toward the risks that ultimately brought SVB down. A more intensive regime could produce more information, examinations and findings while still concentrating attention upon governance, models, reporting and process rather than the institution's material financial position.

[Board Staff 2]'s understanding of the portfolio boundaries had also evolved since the Barr Report was written. At the time of that review, he had regarded the divisions between CBO, RBO, and LFBO supervision as "very hard lines." But subsequent experience led him to conclude that supervisory practices ordinarily changed more gradually: "It wasn't as stark as I believed it to be when I did the SVB report," [Board Staff 2] explained.

SVB remained an important exception. [Board Staff 2] recalled that its transition "from RBO to LFBO was not smooth." It occurred during the COVID pandemic, and "the team took a while to get staffed up."

But he did not attribute the ratings inertia observed during that transition exclusively to the regulatory boundaries established through EGRRCPA tailoring. The reluctance of the incoming LFBO team to reverse a recently assigned RBO rating may also have reflected "human nature," [Board Staff 2] said: a hesitation to override colleagues with longer experience supervising the institution before gathering additional evidence.

> **"The data and process issues as Enhanced Prudential Standards come into play seem to overwhelm supervisors and banks, distracting from levels of or concentrations in risk.**
>
> [Board Staff 2]

[Board Staff 2] insisted that past-VCS Quarles had never instructed examiners to reduce the intensity of supervision. Rather, as [Board Staff 2] understood it, Quarles's emphasis was on ensuring that supervisory actions were grounded in applicable law, regulation, and legitimate supervisory authority. Those policies may have changed things at the margins, [Board Staff 2] said, “but the core really stay[ed] the same.”

[Board Staff 2] was emphatic about Quarles’s likely response had SVB’s danger been presented to him clearly: “I’ve heard Quarles speak about the [Barr] Report and sort of the key takeaway for the tone of supervision stuff, that he never said, ‘Turn down supervision.’ And I agree, he did not,” [Board Staff 2] said. “And had he seen that risk and we recognized it and we told him, ‘Hey, there’s this big risk at SVB,’ he would have said, ‘Go do something about it.’ He may have picked up the phone and called them himself,” [Board Staff 2] argued. “That was my impression of the man.”

[Board Staff 2] allowed that there may have been a distinction between what Quarles had intended and what supervisory personnel may have believed to be his expectations. His experience led him to conclude that examiners and supervisory leaders sometimes “overreact” to or misinterpret the priorities announced by a Vice Chair. “Vice Chairs’ comments,” he said, “are prone to overreaction among staff.”

[Board Staff 2]’s later reflections concerning supervisory guidance illustrate the point. He believed supervisors had become increasingly uncomfortable directing a bank to reduce a lawful but dangerous financial position. Instead, they might criticize the processes by which the position was governed and monitored.

In SVB’s case, that meant identifying deficiencies in the management of the held-to-maturity securities portfolio without requiring SVB to reduce or hedge the underlying exposure. “We stopped being sensitive to the level of risk,” [Board Staff 2] concluded.

He offered only a tentative explanation for this development. Quarles had properly objected when guidance establishing a concentration threshold came to operate as though it were a binding rule. But [Board Staff 2] thought that message may have been translated too broadly.

“I think some of that translated into ‘we can’t tell banks how much risk they take, how to do their business,’ which I think may have been at play in SVB,” [Board Staff 2] said. “But that’s the thing that it’s not in the papers, you won’t find it anywhere, but it’s something that I’ve thought about since doing that SVB review.”

This qualification helps explain [Board Staff 2]’s present discomfort with the prominence given to the Barr Report’s fourth finding, regarding EGRRCPA and tailoring. He continued to stand by what the review team found and “generally how [they] wrote it.” But he believed that particular finding was received publicly as an effort to blame Quarles, which had not been the writers’ intention.

The resulting controversy distracted from what [Board Staff 2] considered the two essential conclusions: “Honestly, I would’ve stopped at Key Takeaway 2. So I would’ve done 1 and 2. The bank screwed up, we missed it, end of story,” [Board Staff 2] asserted.

Interview with [Board Staff 14] (revisited)

[Board Staff 14], who led the production of the Barr Report, offered a similarly qualified account of the role that EGRRCPA and tailoring may have played in connection with SVB.[178] [Board Staff 14] emphasized that the Barr Report's four principal conclusions were presented in descending order of significance. The finding concerning EGRRCPA, tailoring, and the shift in supervisory policy was the fourth and least important of the Report's four principal causal findings.

[Board Staff 14] described that fourth conclusion as "poorly understood." The Barr Report, he explained, "did not say there was a bad law" [EGRRCPA]. Its criticism concerned implementation: "the way it was implemented" created "step functions in how supervision was done" and resulting confusion "as firms move between portfolios."

[Board Staff 14] did not retreat from the related conclusion that the stance of supervisory policy had shifted. "Was that part of the story? I think it was," he said. "I think the evidence supports that it was." But he immediately qualified the significance of that finding: "Was it the driving factor? No."

In his view, public and congressional attention had become disproportionately focused upon the Barr Report's fourth conclusion. "It seemed misguided from the beginning that some thought the fourth conclusion was the most important thing," he observed. "I think it mattered," but the central cause remained that "the firm failed to manage its risk," [Board Staff 14] insisted. "The evidence is crystal clear on that, and that was the prime cause of what happened."

Nor did [Board Staff 14] understand the fourth finding principally as an indictment of Quarles. His own explanation was more institutional. Different policymakers bring "different risk appetites" to the supervisory function, he said, and the resulting differences are "not a question of right or wrong"; they reflect choices about "how do I want to prioritize and make trade-offs?"

[Board Staff 14] regarded tailoring itself as one such trade-off. Supervisory intensity should generally rise with the size and systemic significance of the institution. "Everyone would agree that that's an upward sloping line," he explained. "That's the definition of tailoring. But how steep? That's a policymaker choice."

Less intensive supervision reduces regulatory burden, but it also accepts some greater probability of failure, [Board Staff 14] explained. Indeed, he argued that, "if we didn't have some bank failures, then we're not tailoring supervision." The question is therefore not whether tailoring permits differentiated treatment; that is its purpose. The question is whether policymakers and supervisors drew the relevant distinctions in the right places and understood the risks thereby accepted.

[178] Appendix A-11, [Board Staff 14], 30 April 2026.

SVB exposed the uncertainty inherent in those distinctions. Portfolio classifications — CBO, RBO, LFBO, and LISCC — gave supervisors some indication of where an institution belonged on [Board Staff 14]'s supervisory curve. But SVB moved from one portfolio to another as it grew, while the supervisory intensity appropriate to its unusual business model and risk profile remained uncertain.

As [Board Staff 14] observed, before the failure "very many people" would not have expected a $200 billion bank to warrant invocation of the Systemic Risk Exception. Yet SVB did, "because of the context and the similarity with other business models, the speed of the run, et cetera." For [Board Staff 14], that experience suggested that "maybe we need to reconsider the slope": institutions previously regarded as non-systemic proved capable of generating systemic consequences.

Quarles's significance to this account lies principally in how a policymaker's chosen risk appetite was communicated through the supervisory system. [Board Staff 14] framed the operational problem from the examiner's perspective: "if I hear one policymaker say, 'Speed, force, and agility,' and another say, 'Due process,' what do I do differently when I go to work tomorrow morning?" That, he said, was "the challenge for the 4,000 people in supervision."

The answer is transmitted partly through institutional culture: "the soft norms," behavioral signals, feedback, promotion decisions, and an understanding of "who gets yelled at." Because examiners do not communicate directly with the Vice Chair on each supervisory matter, the message is filtered through what [Board Staff 14] called a "telephone game." Staff receive different messages and must determine "what's important" and "where the tone is shifting."

Tarullo, Quarles, Barr, and Bowman each brought different approaches to the role, [Board Staff 14] said. "One is not right and one is not wrong. They're just different."

For [Board Staff 14], the institutional response should therefore begin with "clarity on the principal's risk appetite" and "clear governance on who makes what decision." In the period surrounding SVB's failure, there was some clarity as to the first: "people understood that Vice Chair Barr's and Vice Chair Quarles's risk appetites were different." There was, however, "not enough" clarity regarding who possessed authority and responsibility for particular supervisory decisions.

Interview with past-VCS Randal K. Quarles

Starling explored these issues with past-VCS Randal K. Quarles, the first Senate-confirmed Vice Chair for Supervision and the official most closely associated with the implementation of EGRRCPA and the Board's subsequent tailoring rules.[179]

Quarles disputed the Barr Report's characterization of his policy agenda as one of "burden easing." He described his objective as preserving the safety-and-soundness gains achieved after the Global Financial Crisis while improving the efficiency with which those protections operated.

[179] Appendix A-9, Randal K. Quarles, 4 March 2026.

As he explained: “There is a public interest in a safe and sound financial system, but there is also a public interest in an efficient financial system. And that’s not because that’s easier on the banks, but because there is a public interest in ensuring that the financial system can provide as much support for the real economy as is consistent with safety and soundness.”

On his account, the first imperative following the Crisis had properly been to repair weaknesses in the regulatory framework. The next was to consider whether that framework could be made more efficient without impairing its effectiveness. Quarles placed EGRRCPA and the tailoring rules within that second phase. The purpose, he said, was to recognize differences among institutions, “tailor this for smaller institutions that don’t pose as much risk to the safety and soundness of the system,” and recalibrate certain requirements in light of experience. “There was really nothing we pulled out by the root,” he maintained. “It was not about burden easing.”

Quarles offered a similar explanation for the interagency “Guidance on Guidance” initiative that the Barr Report identifies as having contributed to a change in supervisory posture. In Quarles’s telling, supervisory guidance had sometimes come to operate as binding regulation without having passed through the legally required rulemaking process. He used leveraged-lending guidance as an example. What had originally been intended as a threshold for closer supervisory scrutiny — leverage exceeding six times EBITDA — had evolved into something approaching a categorical prohibition: “5.9 times EBITDA, good. 6.1 times EBITDA, bad.”

The purpose of the new policy, Quarles said, was to restore the distinction between guidance and a binding rule. “Guidance is guidance,” he explained. But Quarles denied that this meant supervisors were no longer to exercise judgment:

“The guidance on guidance was not saying, ‘All right, the barn doors are open. No one can express a view on excessive leverage.’ It’s that, what had essentially been a regulatory cap is now more porous, but it’s only up to a point,” Quarles explained. “There’s still supervisory judgment that’s being exercised around this guidance.” If the Board wants to impose firm limits of any sort, he argued, it should look to do so through notice-and-comment rulemaking. Otherwise, supervisors remained responsible for assessing underlying risk and this involves some element of judgment.

Quarles nevertheless acknowledged that “supervisory practice did change” following the policy’s implementation, pointing to an increase in the average leverage associated with bank lending. His position was not that the policy had no effect, therefore, but that its intended effect was to restore the appropriate application of supervisory judgment, rather than to suppress it.

Quarles also rejected the suggestion that his emphasis upon due process required supervisors to accumulate an excessive evidentiary record before acting.

Quarles described the appropriate degree of burden as dependent upon the degree of uncertainty surrounding the issue. A new accounting standard, for example, might justify dialogue while banks and supervisors developed experience with its implementation. Established financial risks called for a different response. Quarles viewed due process and deliberation as appropriate where the Federal Reserve's own knowledge remained uncertain; they were not meant to delay action against familiar and well-understood threats to a bank's safety and soundness.

He recalled explaining to examiners during visits to each of the twelve Reserve Banks: "There are things that we know are critical to the exposure of an institution … since the first Venetian gold merchant set up his bench on Rialto in the 13th century." Where we know that something is clearly an issue, "Tell the banks that this is a problem. Make them fix it."

Quarles similarly disputed the inference the Barr Report draws from the abandonment of proposed supervisory guidance concerning technology-service providers. He emphasized that staff involved in that decision-making had not submitted the proposal and been instructed to withdraw it. Rather, as Quarles understood the Barr Report's account, they had concluded for themselves that it would not be supported and chose not to elevate it.

"They said, 'We worked on it. And then we thought, well, we better not tell anybody about it,'" Quarles observed. "I don't know what I'm supposed to do about that." Had the matter been raised in Washington, he maintained, staff would have been told to put the proposal forward: "there will be back and forth about this," Quarles said, "and it may not be approved in exactly the way you're proposing, but it will get a hearing."

As [Board Staff 2]'s and [Board Staff 14]'s accounts affirm, the Barr Report's claims in this connection turn not only upon what senior policymakers intended, but also upon how their expectations were understood by those responsible for conducting supervision. An instance in which experienced staff abandoned a proposal because they anticipated that it would not be welcomed may thus reveal a consequential failure of internal communication, rather than an instruction to abandon certain workstreams.

Quarles described extensive efforts to explain his position, including town-hall meetings with examiners at every Reserve Bank. This does not establish whether the distinctions he intended — between guidance and rules, uncertain and established risks, and initial engagement and subsequent enforcement — were consistently understood by examiners and applied in practice.

Quarles also questioned whether EGRRCPA, the tailoring rules, or SVB's movement from the RBO to the LFBO portfolio could plausibly explain the failure to address the risks that proved consequential.

He acknowledged that SVB's extraordinarily rapid growth made its transition difficult to manage and that the Federal Reserve may understandably have "struggled a bit" with it. But he maintained that the relevant interest-rate risk was neither obscure nor dependent upon the application of LFBO standards. The Federal Reserve required internal interest-rate-risk testing in both portfolios. "This is interest-rate risk," he said. "All you need is a spreadsheet and a green eyeshade. There's nothing magic about it."

Asked whether the RBO-to-LFBO transition had allowed the supervisory "ball" to drop between two teams, Quarles answered: "I don't think so." Although he did not know the details of a transition that occurred after he left the Federal Reserve, he found it "very difficult" to see how it could have been consequential because "interest-rate risk is not something that changes in assessment between an RBO and an LFBO bank."

Quarles's account leaves an important question for further inquiry: evidence concerning what a policymaker intended does not, without more, establish how a policy change affected behavior throughout a large and organizationally complex supervisory system. Whether those distinctions survived their transmission through the organization, and whether senior leadership took sufficient steps to determine how its messages were being received, is a matter that requires closer attention.

Quarles described a supervisory system in which extensive process, diffused authority exercised through a "miasma of committees," and institutional reluctance to prioritize risks could prevent identified problems from producing decisive action. He said that this problem was evident to him when he arrived at the Federal Reserve. His principal concern, therefore, was not with particular supervisory judgments but, rather, with "the process with which decisions were reached and prioritized or not prioritized."

He illustrated the problem with a cease-and-desist order developed during his tenure. Faced with an urgent data-quality deficiency, the supervisory instinct had been to require consultants, comprehensive process reviews, work plans, and years of remediation and validation. Quarles pressed instead for the institution to identify the critical problem, require the bank to correct it promptly, verify the correction, and move on.

"We don't need a consultant to spend years studying the problem," he recalled arguing. "We need them to get started on fixing the problem now."

> **"When we have a view about what is required, we must communicate that view.**
>
> Randal K. Quarles
> past-Vice Chair for Supervision

In Quarles's account, this process orientation arose partly from a longstanding tension embedded in the supervisory role. Examiners were properly instructed that they were not to manage the banks they supervised. At the same time, they understood that any serious bank failure would expose them to criticism for having been "asleep at the switch." The examiner was thus placed in an untenable position: "I can't manage the bank, but I'm going to be held accountable for any problem at the bank that's serious."

The institutional response, Quarles argued, was to substitute process for prioritized judgment.

Supervisors could determine whether a bank had created appropriate committees, commissioned reviews, prepared lengthy reports, and elevated matters to its board, without stating what outcome the Federal Reserve expected the bank to produce. Quarles regarded that as a misunderstanding of the prohibition against managing a bank. Where supervisors had reached a judgment concerning an established risk, he said, they were obliged to communicate it: "when we have a view about what is required, we must communicate that view."

Quarles described the solution he sought to promote in similarly direct terms. Supervision should not remain "relatively agnostic" about the outcome of an elaborate governance process. It should tell an institution: "This is what you have to fix." That necessarily required supervisors to distinguish urgent vulnerabilities from lesser concerns, rather than treating every finding as an undifferentiated part of a comprehensive remediation program. It also required senior leadership to defend reasonable prioritization decisions when a risk assigned lower priority subsequently materialized.

Quarles recognized the reasons why supervision became more centralized following the Global Financial Crisis: Washington-based direction promised greater consistency and reduced the risk of regional supervisory capture. But he also described the resulting costs.

Centralization, he said, produced "a much less nimble system" in which decisions concerning particular institutions were made with "less granular information" about the risks they faced. Reserve Bank examiners could be reluctant to send matters to Washington because they feared losing control of them in a process that might take considerable time to resolve.

And communication in the opposite direction was no easier. Quarles considered the Vice Chair for Supervision to be "the chief executive officer of the supervisory function." Yet when he proposed regular discussions with the examiners directly responsible for the largest and most troubled institutions, the proposal was regarded as an intrusion into staff responsibilities.

He likened the institutional response to an admiral telling civilian leadership: "Mr. Vice Chair, will you go back to your office, and the Navy will run the blockade." Ultimately, Quarles said, he was permitted to meet only quarterly, and only with the examiners in charge of the global systemically important banks.

Quarles also acknowledged that his own approach to overcoming this institutional resistance may have been insufficiently forceful. He entered the Federal Reserve believing that its culture resembled "a combination of a law firm and a university faculty" and that an overtly directive leadership style would be counterproductive. He therefore sought to exercise his authority collaboratively.

In retrospect, he conceded, "I was probably too collaborative in exercising that authority." That concession is significant when considered alongside the Barr Report's criticism of a deliberative and consensus-driven supervisory environment. Quarles did not accept that his policies instructed examiners to retreat. But he recognized that the supervisory function required a leader capable of bringing deliberation to a close and ensuring that decisions were carried into effect.

"When a decision has been made and, okay, now it's time to execute," he said, "then it's time to execute." His retrospective judgment that he had been "too collaborative" raises the possibility that a policy message intended to encourage careful judgment and procedural fairness entered an institution already inclined toward prolonged consultation, unclear decision-rights, and reluctance to act without broad internal agreement.

Quarles therefore rejected the Barr Report's attribution of the problem to a recent change in political or supervisory posture. He traced it instead to structural incentives that had developed over decades.

"This is not something that happened in 2017 or 2021 or 2023, or 2000," he said. "This has been going on since the '80s, this gradual development of our current supervisory practice."

Quarles rejected the contention that SVB had been supervised laxly, noting that it was subject to "well over 30 MRAs and MRIAs," substantially more than most institutions of comparable size. The problem, in his view, was not an absence of supervisory activity, but a failure to distinguish the existential risk from the many other deficiencies being recorded: "We're going to identify any issue that we've seen. We're not going to prioritize anything because that would be managing the bank."

Thus, "notwithstanding that there's this flaming asteroid in the sky about interest-rate risk," the supervisory response focused upon whether SVB had established a committee and reported to its board — not upon the direct instruction: "Fix this." SVB, Quarles concluded, "was not a laxly supervised bank. It was a bank for which the supervisors had established no priorities."

Interview with [Board Staff 1]

At the time of the Barr Report's production, **[Board Staff 1]** was in the Division of Supervision and Regulation.[180]

In the production of the Barr Report, [Board Staff 1] was paired with a senior lawyer in the Board's Legal Division to address the Report's regulatory-policy component. "[Name] from Legal and I were partnered to work on the regulation or policy," [Board Staff 1] recalled, adding that she believed she had been selected because her team operated as a central coordinator for the relevant subject-matter experts. Their work drew upon specialists in capital, liquidity, stress testing, and resolution planning and was undertaken, [Board Staff 1] recalled, on a "pretty condensed timeline."

[Board Staff 1]'s description of the assignment is particularly significant. She observed that "if you're able to frame the question effectively, that can be half the battle to winning the argument."

In her recollection, Barr had framed the regulatory-policy inquiry by asking the team to construct a counterfactual: "Pretend that didn't happen, pretend Congress didn't pass the statute [EGRRCPA], that we didn't do tailoring, what regulations would the firm [SVB] have been subject to if all that hadn't happened?" The resulting work was principally an exercise in what [Board Staff 1] called "legal archeology."

The team examined historical versions of the Code of Federal Regulations to identify requirements that would have applied to SVB had Congress not enacted EGRRCPA and had the Board not adopted the subsequent tailoring rules. "Our brief," she later explained, was "look at the regulations that applied to SVB and to look at the regulations that would have applied to SVB in the absence of the Crapo bill and the tailoring rulemakings."

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[180] Appendix A-1, [Board Staff 1], 16 June 2026.

Her team was not examining whether changes in supervision had contributed to the failure: "We weren't looking at the supervisory side."

On its face, this was a factual comparison between two regulatory regimes. [Board Staff 1] nevertheless regarded the framing as consequential. Because EGRRCPA and the ensuing tailoring rules had deliberately reduced the requirements applicable to certain firms, asking what would have applied in their absence would necessarily produce a list of additional requirements to which SVB might otherwise have been subject.

In [Board Staff 1]'s characterization, it was "almost like you're framing it [to conclude], look how much less you were doing because Congress passed that statute." When asked directly whether the assignment had presupposed a conclusion, [Board Staff 1] answered carefully: "That's how it felt to me."

She described the perceived logic as follows: "There were fewer requirements due to the tailoring rulemakings, and SVB failed. To prevent a failure like that from happening again, shouldn't the regulations be revisited / modified / updated / changed / strengthened to prevent this from happening next time?"

"If you ask the question that way," [Board Staff 1] continued, "you're going to come to that conclusion." She associated that framing with what followed the Report's publication: a postmortem that, in her description, "launched 1,000 policy work streams."

[Board Staff 1] was equally explicit, however, that she did not participate in meetings with Barr and did not claim personal knowledge that he had predetermined a specific finding. Moreover, the direction she received was indirect. "A lot of this was getting filtered on either from one of Vice Chair Barr's advisers at the time, or from [Board Staff 14]," she said.

That adviser, [Board Staff 1] confirmed, served as a "go-between" with Barr's office and reviewed the Report. She nevertheless declined to infer from that chain of communication that Barr had intentionally established a predetermined result: "I don't want to speculate unfairly because I honestly don't know."

[Board Staff 1] also distinguished her own assessment from the conclusion expressed in the Barr Report. Whether additional requirements would have prevented SVB's failure was, in her view, "almost impossible to know." Banks manage their affairs in response to the requirements actually imposed upon them, she reasoned, making the counterfactual inherently uncertain.

"I think that the Barr Report was much more definitive than I am on it," she said. "I would not have landed at the same conclusion, personally." [Board Staff 1] said she did not believe that it followed from her analysis that, but for tailoring, "everything would've been fine," or that imposing new liquidity requirements was necessarily "the appropriate fix" or "the right conclusion to come to."

[Board Staff 1]'s testimony therefore raises questions about the framing of the Barr Report's regulatory-policy conclusions that demand further inquiry which Starling has yet to conduct.

Interview with [Board Staff 15] (revisited)

Where [Board Staff 1]'s account raises questions about the framing of the Barr Report's inquiry into EGRRCPA and tailoring, the testimony of [Board Staff 15] challenges the causal conclusion that emerged from it.[181]

[Board Staff 15] did not dispute that a change in VCS could materially alter the Fed's direction. Comparing the tenures of Tarullo, Quarles, Barr, and Bowman, he observed that there had been "pretty significant changes each time" the supervisory leadership changed, and "very significant changes in general trajectory on regulation and supervision."

What [Board Staff 15] rejected was the proposition that the Quarles-era changes materially contributed to SVB's failure. Indeed, he shared that he had objected to that suggestion while reviewing early drafts of the Barr Report. "I was not happy with the Barr Report's general indictment of the [Randy] Quarles regime," he recalled. "I did live through the Quarles regime. I was here the whole time."

Although Quarles "definitely had a change in tone from Dan Tarullo," [Board Staff 15] said that nothing he witnessed in his conversations with Quarles, his speeches, or his Reserve Bank town halls suggested that this change in tone "would be a material contributor to the failure of Silicon Valley [Bank]." He held the same view of the regulatory changes: "I also don't think that the tailoring work that Randy spearheaded while he was the Vice Chair for Supervision was a material contributor to what happened at Silicon Valley [Bank]."

[Board Staff 15] recalled seeing the contrary proposition in early drafts of the Barr Report and objecting to it directly. "I asked for it to be removed," he said. "I think I was partially successful in getting at least some of the tone softened maybe over time, but I think this was my principal complaint about where the Barr Report went."

[Board Staff 15] acknowledged that some of those interviewed for the Barr Report may have perceived the Quarles-era policy changes differently, but he said that their reported perceptions were "just not consistent with what my understanding was of what happened during the Quarles era."

[Board Staff 15] stated his position directly: "I would not assign any significant causal role in the demise of Silicon Valley Bank to any kind of cultural change that Vice Chair Quarles would've instituted when he became Vice Chair [for Supervision], or to any of the regulatory tailoring work that was done in the Quarles era." Quarles had made regulatory changes, many "directly inspired" by EGRRCPA, and had changed the supervisory culture "to some extent." But, [Board Staff 15] continued, "I don't see a way

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[181] Appendix A-13, [Board Staff 15], 4 & 12 June 2026.

to tell a great causal story of how any of the changes that Randy [Quarles] made increased the probability of failure of Silicon Valley Bank."

On the regulatory side, [Board Staff 15] understood EGRRCPA as a congressional directive to alter the framework inherited from Dodd-Frank. "Congress did pass a law in 2018, and told the Fed to do more and better tailoring for the large regional banks in the United States," he said. "We did that. I think we did that in a pretty faithful way to the statutory text and spirit under the leadership of Randy Quarles." He did not suggest that the resulting calibration was beyond reasonable dispute.

"You could argue about whether Randy propounded too much deregulation for the category-four firms, between $100 and $250 billion," he allowed. "You could argue both sides of that." His narrower claim was that he did not see those decisions as a material cause of SVB's failure.

On the supervisory side, [Board Staff 15] agreed that Quarles had sought to change both process and emphasis. Quarles promoted "more of a focus on due process," greater "transparency of supervisory expectations," and greater attention to "the stuff that matters, like capital and liquidity and interest-rate risk." Correspondingly, he encouraged less attention to "governance and controls and paperwork and process and that sort of thing." In [Board Staff 15]'s account, this was not an instruction to supervise less forcefully; it was an instruction to redirect supervisory attention toward material financial risks.

[Board Staff 15] also rejected the proposition that Quarles had improperly imported the full requirements of legal enforcement into ordinary supervision.

> "The falcon cannot always hear the falconer.
>
> [Board Staff 15]

Supervision and enforcement, he explained, rest upon different legal authorities and do not carry identical procedural requirements. "I don't think the same due process requirements apply in supervision, examination, issuance of MRAs, issuance of MRIAs," he said. But the answer was not to conduct supervision as the "'Wild, Wild West'" or to "slap banks around with no due process with any thought that comes to our mind." In his view, it was "perfectly reasonable for Randy [Quarles] to say he wanted to see a little more due process and transparency provided to banks in the supervision, examination, and rating processes," and he regarded that as "a good development."

[Board Staff 15] nevertheless acknowledged the possibility that Quarles's intended message was not the message received in the field.

"I think there's definitely a risk of signal degradation," he observed, "that the falcon cannot always hear the falconer." When senior officials communicate principally through speeches and occasional meetings, "there's going to be a risk of the message not quite getting communicated correctly or being misunderstood or misinterpreted." That "very well could have happened."

But [Board Staff 15] distinguished that possibility from the content of the message he personally heard. "To me, the message he [Quarles] was delivering was, we need to focus less on paperwork and process," he said, and "focus more on material financial risks, like capital, credit risk, liquidity risk, interest-rate risk." An examiner hearing Quarles speak in 2018, 2019 or 2020 might reasonably have concluded that less time should be devoted to "process and procedure and governance and controls." [Board Staff 15] thought it would be "really hard," however, to interpret the same message as directing supervisors to spend less time conducting "credit risk reviews, or liquidity risk reviews, or interest-rate risk reviews."

Here, [Board Staff 15] emphasized the limits of his knowledge. He did not see every conversation within the Reserve Banks and did not know "what the examiners said to themselves in various rooms." Likewise, the exchanges between Reserve Bank examiners and the enforcement lawyers who reported through Legal would generally not have reached him. He therefore could not exclude the possibility that a different message was inferred or operationalized below the level at which he observed Quarles.

His testimony is that he did not hear Quarles communicate such a message — not that no examiner could have perceived one. [Board Staff 15] suggested that this question should be tested against supervisory outcomes rather than resolved through impressions alone.

In this direction, he recommended examining the ratings assigned to large banking organizations during the Quarles years. In his recollection, the percentage rated less than well managed declined only in a "slow, modest, steady" fashion: "there was no cliff." That "evolutionary, steady, modest, paced decline in tough ratings," he argued, was evidence that Quarles had not "drop[ped] an anvil on the examiners, and they then dropped tools."

His rejection of the Barr Report's broad causal account did not lead [Board Staff 15] to contend that every more stringent requirement would have been irrelevant to SVB. He identified the regulatory treatment of unrealized securities losses as one concrete example.

Because SVB fell below the applicable asset threshold, it was not required to incorporate those losses into regulatory capital. [Board Staff 15] described the original threshold decision as "a reasonable decision at the time," but reasoned that, had SVB been required to recognize those losses in real time, it probably would have reduced the size or duration of its securities portfolio or hedged its exposure. That change, he believed, would have "helped in a non-trivial way."

[Board Staff 15] similarly acknowledged problems surrounding SVB's transition from the RBO to the LFBO portfolio. "There definitely was some lack of clarity around the transition and what new standards ought to apply when," he said, and a clearer framework might have made the handoff "better and easier."

But he would not place that problem near the top of the causal hierarchy: "I just probably wouldn't have that on my top eight list of things that caused the failure of Silicon Valley Bank." Even if LFBO had applied a fully developed supervisory program immediately upon SVB's crossing $100 billion in assets, he did not believe "we probably would've had a different outcome at the end of the day."

[Board Staff 15]'s testimony thus does not contest that EGRRCPA changed the regulatory framework, that Quarles altered supervisory policy and tone, or that those messages may have been misunderstood as they moved from "central command" into the field. It contests the causal inference drawn from those facts.

In [Board Staff 15]'s account, Quarles sought to redirect supervisors from process-oriented concerns toward material financial risks, not to weaken their scrutiny of capital, liquidity, or interest-rate risk. But because [Board Staff 15] lacked direct visibility into the day-to-day supervision of regional banks, his testimony leaves an important question unresolved: whether the supervisory force of Quarles's intended message survived its transmission through the institution — or whether, as [Board Staff 15] himself allowed, "the falcon" failed to hear "the falconer."

Questions in this regard are best explored through interviews with those in the field — "the falcon" — responsible for the day-to-day supervision of SVB. In this direction, Starling has interviewed almost all FRBSF examiners who remain employed within the Federal Reserve System and who served on the Dedicated Supervisory Team responsible for SVB while it was supervised within the RBO portfolio, during its transition to the LFBO portfolio, and thereafter:

[FRBSF 1]

[FRBSF 2]

[FRBSF 3]

[FRBSF 4]

[FRBSF 5]

[FRBSF 6]

[FRBSF 7]

[FRBSF 8]

[FRBSF 9]

[FRBSF 10]

[FRBSF 11]

[FRBSF 12]

[FRBSF 13]

[FRBSF 14]

[FRBSF 15]

[FRBSF 16]

Those interviews have sought to distinguish the message intended at "central command" from the message received and operationalized in the field. Starling has asked whether EGRRCPA and the implementing tailoring framework changed the practical intensity of SVB's supervision; whether they affected staffing, examiner hours, expertise, examination scope or the standards applied; and whether supervisors understood the Quarles-era emphasis upon due process, transparency and material financial risk as requiring greater discipline in the exercise of supervisory judgment — or as raising the institutional threshold for criticism, ratings downgrades, formal findings, and enforcement action.

Starling has also sought to determine how responsibility was allocated as SVB grew rapidly and moved between supervisory portfolios; whether RBO and LFBO personnel possessed a common understanding of SVB's condition and the work that remained outstanding; and whether supervisory delay resulted from policy direction, resource and expertise constraints, pandemic-related disruption, uncertainty regarding governing standards, fragmented decision-making, or judgments specific to SVB. Particular attention has been given to whether examiners felt empowered to elevate concerns, how those concerns moved through FRBSF and the Board, and whether signals from senior leadership or Legal altered the manner or urgency with which those concerns were expressed.

These interviews permit the inquiry to move beyond competing accounts of what Quarles intended, what senior officials believed they had communicated, or what the Barr Report later inferred. The more probative question is what the supervisors responsible for SVB understood their mandate to be, how that understanding shaped the work they performed and the actions they recommended, and whether any loss of supervisory force can be demonstrated in the contemporaneous record rather than inferred retrospectively from the fact of SVB's failure.

A discussion of those interviews falls outside the scope of this present Preliminary Report and will feature instead in a subsequent Interim Report Starling will deliver to S&R later in the year.

7. A run, "unprecedented" in its speed, "fueled" by social media

The Barr Report distinguishes between the vulnerabilities that left SVB susceptible to failure and the event that brought about its immediate collapse. In his introductory letter, Vice Chair Barr writes that, "[w]hile the proximate cause of SVB's failure was a liquidity run, the underlying issue was concern about its solvency."[182] The Report thus presents the run as the mechanism through which weaknesses accumulated over a longer period became fatal.

According to the Report's chronology, SVB's March 8th announcement of a balance-sheet restructuring — including the sale of securities at a loss and an intended capital raise — was followed the next day by rapidly accelerating withdrawals of uninsured deposits. The Report states that these outflows "reflected fundamental concerns about the bank" and "appear to have been sparked by a number of interrelated factors": deteriorating sentiment within the technology sector, the prospect of adverse action by credit-rating agencies, and:

> *"highly correlated withdrawals from SVBFG's concentrated network of VC investors and technology firms who, fueled by social media, withdrew uninsured deposits in a coordinated manner at an unprecedented rate."*[183]

The Barr Report thus places social media within a broader combination of circumstances, but it assigns social media a specific causal role: it is said to have "fueled" highly correlated and coordinated withdrawals at an "unprecedented rate."[184]

The Report supports its characterization of the run's extraordinary scale and speed by observing that SVB lost more than $40 billion in deposits on March 9th and that management expected to lose more than $100 billion on March 10th. Taken together, these actual and anticipated withdrawals represented approximately 85 percent of SVB's deposit base. In its "Key Takeaways," the Report states simply that "[t]his unprecedented outflow" led California authorities to close SVB.[185]

The Barr Report's Executive Summary repeats the social-media proposition in more qualified terms, stating that the run "appears to have been fueled by social media" and by SVB's concentrated network of venture-capital investors and technology firms. But it later offers a broader formulation, asserting that "social networks, media, and other ties reinforced a run dynamic that played out at remarkable pace."[186]

Barr's introductory letter extends that proposition into a broader claim about the changing nature of bank runs. "The combination of social media, a highly networked and concentrated depositor base, and technology," Barr writes, "may have fundamentally changed the speed of bank runs." He then

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182 Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 2.

183 Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 4.

184 Ibid.

185 Board of Governors of the Federal Reserve System, *Key Takeaways, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, i.

186 Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 24.

assigns separate functions to communication and transaction technology: "Social media enabled depositors to instantly spread concerns about a bank run, and technology enabled immediate withdrawals of funding."[187]

By the Report's concluding recommendations, the "unprecedented pace of deposit flows" has become an example of the unexpected shocks against which banks and supervisors may need to build greater resilience.

The Barr Report thus advances several related but analytically distinct propositions:

- First, the speed and scale of the SVB run were historically unprecedented.
- Second, withdrawals were highly correlated and undertaken in a coordinated manner by members of SVB's concentrated depositor network.
- Third, social media helped to cause or accelerate that coordination.
- And fourth, digital transaction technology converted rapidly spreading concern into immediate deposit flight.

The quantitative evidence offered by the Report bears directly upon the first proposition. Whether it also substantiates the Report's claims regarding coordination and the causal contribution of social media is a separate question, which the Barr Report does not answer.

Echoes from Basel

Nevertheless, by October 2023, the Barr Report's account had migrated into the work of two international standard-setting bodies. Reports issued by the Basel Committee on Banking Supervision ("BCBS") and the Financial Stability Board ("FSB") reiterated not only the proposition that the run on SVB was unprecedented in its speed, but also the more contestable assertion that coordinated withdrawals were "fuelled" by social media.

The BCBS *Report on the 2023 Banking Turmoil* is candid about the derivative nature of its account. Its discussion of SVB, it explains, "draws heavily on" the Barr Report and the postmortems issued by the GAO and the California Department of Financial Protection and Innovation, together with the Bank of England's account of SVB UK.[188] Against that sourcing backdrop, the BCBS reproduces the Barr Report's formulation almost word for word, describing:

> *"highly correlated withdrawals from SVBFG's concentrated network of VC investors and technology firms who, fuelled by social media, withdrew uninsured deposits in a coordinated manner at an unprecedented rate."*[189]

Apart from its use of the British spelling "fuelled," this is the language of the Barr Report.

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[187] Michael S. Barr, *Letter of Transmittal, in Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, 2.
[188] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*, 6.
[189] Ibid.

The BCBS does provide quantitative context for the exceptional speed and scale of the run. Its historical comparison estimates an 85 percent outflow from SVB over two days — combining the withdrawals completed on March 9th with those expected on March 10th — and contrasts that figure with the outflows experienced by other distressed banks.[190]

And the BCBS appropriately cautions that this comparison relies upon publicly available information, incorporates expected rather than completed withdrawals in SVB's case, and is subject to definitional and timing differences. That analysis lends support to the characterization of the run as extraordinary in its speed and magnitude. It does not, however, establish what role social media played in producing those outflows.[191]

Elsewhere, the BCBS converts the SVB account into a broader supervisory proposition, referring to "the role of social media and the digitalisation of financing in hastening the speed and impact of a bank's distress." It distinguishes, at least implicitly, between two mechanisms: digital banking technologies that remove frictions previously slowing the movement of funds, and communication platforms that accelerate the circulation of concerns about a bank's viability.[192]

But the Report offers no SVB-specific analysis connecting the timing or content of social-media communications to the timing of deposit withdrawals. Its discussion explains how social media might accelerate a run, but it does not independently demonstrate that social media did so at SVB.

The FSB's October 2023 report, "2023 Bank Failures: Preliminary Lessons Learnt for Resolution," adopts the Barr Report's conclusion even more directly. It states that SVB's balance-sheet vulnerabilities, concentrated and uninsured deposits, and "social media influence" combined to produce the run.[193] It then offers:

> *"This run on deposits at SVB appears to have been fuelled by social media and SVB's concentrated network of venture capital investors and technology firms that withdrew their deposits in a coordinated manner with unprecedented speed."*[194]

The accompanying footnote cites the Barr Report alone. And the FSB subsequently generalizes from this account under the heading "Speed of bank runs accelerated by digital innovation." There, it reasons that "[t]he ubiquity of social media and mobile banking may mean that bank runs … when they happen, happen faster."[195]

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[190] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*, 9.
[191] Ibid.
[192] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*, 20.
[193] Financial Stability Board, *2023 Bank Failures: Preliminary Lessons Learnt for Resolution*, 18.
[194] Financial Stability Board, *2023 Bank Failures: Preliminary Lessons Learnt for Resolution*, 19.
[195] Financial Stability Board, 2023 *Bank Failures: Preliminary Lessons Learnt for Resolution*, 25.

Turning again to SVB, it asserts that "[s]ocial media posts advised depositors to withdraw funds from SVB, and many uninsured depositors did so all at once," while adding that the depositors' participation in "closely overlapping virtual communities may have contributed to the synchronised nature of the deposit outflows."[196]

These propositions are plausible, and the FSB's use of "appears" and "may" preserves an important measure of qualification. But the published study does not identify any independent empirical examination of the relevant social-media activity, depositor communications, or relationship between the timing of those communications and the withdrawal instructions received by SVB.

Instead, its central SVB-specific causal assertion is sourced to the Barr Report, while its subsequent elaboration is presented without supporting analysis sufficient to verify that assertion independently.

Thus, the apparent agreement among the Barr, BCBS, and FSB reports should not be mistaken for three independent findings. The BCBS supplies useful comparative evidence regarding the speed and scale of the run, and both international bodies identify credible mechanisms by which digital communications and transaction technologies *could* accelerate depositor flight. But neither independently substantiates the narrower causal claim that social media in fact "fuelled" coordinated withdrawals at SVB.

What the October 2023 reports demonstrate most clearly is the international diffusion of the Barr Report's account: repetition increased the claim's institutional prominence without increasing the breadth of the evidence offered in its support.

"Social Media as a Bank Run Catalyst"

One of the first efforts to provide an empirical foundation for the "social-media-fueled" account of SVB's failure was an academic working paper entitled *Social Media as a Bank Run Catalyst*, authored by J. Anthony Cookson, Corbin Fox, Javier Gil-Bazo, Juan Felipe Imbet, and Christoph Schiller. The initial manuscript was dated April 18th 2023 — less than six weeks after SVB failed — and its abstract opened with an unusually categorical assertion: "Social media fueled a bank run on Silicon Valley Bank (SVB), and the effects were felt broadly in the U.S. banking industry."[197]

Notably, this first public draft of the paper employed the same consequential verb — "fueled" — that would appear ten days later in the Barr Report.

Reporting of the study began no later than April 21st, when *Money* described it as a "new working paper," linked readers to SSRN, and reported its conclusion that social-media discussion had amplified bank-run risk.[198] The paper was also discussed that day by the *New York Times*' *DealBook*.[199] SSRN's

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[196] Ibid.
[197] J. Anthony Cookson, et al., "Social Media as a Bank Run Catalyst" (working paper, April 18th 2023), 1, https://www.fdic.gov/system/files/2024-07/cookson-paper.pdf.
[198] Sarah Hansen, "Study Finds Twitter Chatter Fueled SVB Collapse — and Other Banks Are at Risk," *Money*, April 21st 2023, https://money.com/twitter-svb-collapse-study/.
[199] Andrew Ross Sorkin et al., "Why BuzzFeed Is Closing Its News Division," *DealBook, The New York Times*, April 21st 2023, https://www.nytimes.com/2023/04/21/business/dealbook/buzzfeed-news-shuts-down.html.

formal record nevertheless identifies April 24th as the date on which the manuscript was posted, while separately identifying April 18th as the date it was written.[200]

Broader press attention followed immediately. On April 24th, *Axios* reported that "Twitter fueled" the run,[201] while *Fortune* described the paper as the first major study to examine the issue and announced that its authors had confirmed that social media contributed to SVB's collapse.[202] Such coverage gave the paper's original causal formulation wide public visibility. But *Axios* also recorded a significant limitation: the researchers had not possessed deposit outflow data and were thus using declines in publicly traded banks' stock prices as a proxy for run severity.

The original analysis drew upon millions of tweets concerning publicly traded banks, and examined the relationship between Twitter activity, banks' traditional vulnerabilities, and movements in share prices. The authors reported that banks with greater pre-existing Twitter exposure suffered larger stock-market losses during the March turmoil, particularly where they also carried large, unrealized securities losses and high proportions of uninsured deposits.

At higher frequencies, they found that negative tweets — especially those authored by members of the technology and startup community or employing terms associated with withdrawal and contagion — were followed by adverse movements in stock prices. From these associations, the Cookson paper inferred that SVB depositors active on Twitter played a central role in the run.

The paper could not, however, observe the decisions or communications of SVB depositors directly. Nor could it capture discussions conducted through text messages, telephone calls, WhatsApp groups, Slack channels, or other private networks. The paper's authors later acknowledged that the absence of publicly available data made it difficult to determine what part those less visible communications had played in precipitating the run.[203] The study therefore provided evidence concerning a relationship between public Twitter activity and market distress — not an account of the channels through which withdrawal decisions were actually made.

Nevertheless, despite this acknowledgement, the Cookson paper's use of the term "fueled" to describe the effect of social media on the run at SVB was echoed four days later in the Barr Report.

After initial publication, the Cookson study continued to evolve. A May 5th 2023 draft retained the categorical opening that social media had "fueled" the run.[204] By June 23rd, however, the authors had

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[200] J. Anthony Cookson, et al., "Social Media as a Bank Run Catalyst," SSRN, posted April 24th 2023, last revised August 11th 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4422754.
[201] Emily Peck, "Twitter Fueled Run on Silicon Valley Bank, New Paper Finds," *Axios*, April 24th 2023, https://www.axios.com/2023/04/24/twitter-svb-bank-run.
[202] Will Daniel, "Twitter Poses a Risk to the Financial System and Helped Fuel the SVB Run, Says First Major Study to Investigate the Topic," *Fortune*, April 24, 2023, https://fortune.com/2023/04/24/twitter-financial-system-risk-silicon-valley-bank-run-study/.
[203] Tony Cookson, Christoph Schiller, and The Conversation, "The Economists Who Studied the Tweets That Predated the SVB Bank Run and Implosion Reveal How Social Media Fuels Financial Panic," *Fortune*, May 2nd 2023, https://fortune.com/2023/05/02/did-twitter-cause-silicon-valley-bank-run-financial-panic-economists-research/.
[204] J. Anthony Cookson, et al., "Social Media as a Bank Run Catalyst" (working paper, May 5th 2023), https://acpr.banque-france.fr/sites/default/files/medias/documents/20231128_socialmediabankruns_202305.pdf.

incorporated quarterly deposit data and reframed the abstract around an effort to "quantify social media's role" in the broader distress of regional banks.[205]

That later version of the paper reported that banks in the highest third of pre-run Twitter exposure lost 6.6 percentage points more stock-market value and that social-media exposure was associated with greater outflows of uninsured deposits during the first quarter of 2023. It also reflected feedback received through presentations to, among others, the European Central Bank, Deutsche Bundesbank, the U.S. Treasury, the Office of the Comptroller of the Currency, and the Single Resolution Board.

The paper was thereafter presented widely within academic and policy circles. The April 18th copy was eventually posted to the FDIC website in connection with the agency's 22nd Annual Bank Research Conference, at which the authors presented the study, on September 28th 2023.[206]

> **"We find that negative Twitter sentiment does not amplify bank run risks.**
>
> Cookson, et al. (2026)

The study also began to enter official policy analysis. The European Central Bank cited a July 2023 update to the paper later that year.[207] In October 2024, the Financial Stability Board cited the Cookson study in a more extensive examination of depositor behavior, finding "some evidence" that social media had influenced recent runs while emphasizing the difficulty in drawing definitive conclusions.[208]

The paper received on-going attention from U.S. policymakers throughout the balance of 2023.

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[205] J. Anthony Cookson, et al., "Social Media as a Bank Run Catalyst" (working paper, June 23rd 2023), https://www.communitybanking.org/-/media/files/communitybanking/2023/social-media-as-a-bank-run-catalyst.pdf?sc_lang=en.

[206] Federal Deposit Insurance Corporation, "22nd Bank Research Conference Agenda," September 28–29th 2023, https://www.fdic.gov/analysis/cfr/bank-research-conference/annual-22nd/2023-brc-agenda.html.

[207] Katharina Cera, Allegra Pietsch, and Andrzej Sowiński, "Financial Stability Considerations Arising from the Digitalisation of Financial Services," *Financial Stability Review*, European Central Bank, November 2023, https://www.ecb.europa.eu/press/financial-stability-publications/fsr/focus/2023/html/ecb.fsrbox202311_03~b8acd7ec17.en.html.

[208] Financial Stability Board, *Depositor Behaviour and Interest Rate and Liquidity Risks in the Financial System: Lessons from the March 2023 Banking Turmoil* (Basel: Financial Stability Board, October 23rd 2024), https://www.fsb.org/2024/10/depositor-behaviour-and-interest-rate-and-liquidity-risks-in-the-financial-system-lessons-from-the-march-2023-banking-turmoil/.

Table 1: Presentations of "Social Media as a Bank Run Catalyst" (Cookson, et al.) at conferences, workshops, and seminars sponsored or co-sponsored by U.S. financial regulatory institutions in 2023

Date	Event	Sponsors	Key Details
23 Jun 2023	Treasury/OCC seminar	U.S. Treasury / OCC	Acknowledged in June 23 manuscript and author CV. Exact date, agenda, and attendees not publicly identified.
28 Sep 2023	22nd Annual Bank Research Conference	FDIC	Presented in Arlington, VA. Martin Gruenberg delivered conference remarks.
4 Oct 2023	Community Banking Research Conference	St. Louis Fed, FDIC, CSBS	Cookson presented. Governor Michelle Bowman gave keynote; FDIC Chair Martin Gruenberg also spoke.
19 Oct 2023	Stress Testing Research Conference	Federal Reserve Bank of Boston	Cookson presented; Leslie Shen discussed; Vice Chair for Supervision Michael Barr delivered keynote following the paper session.
13–14 Nov 2023	Nontraditional Data, ML & NLP in Macroeconomics	Federal Reserve Board	Corbin Fox presented. Governor Lisa Cook opened conference.
16 Nov 2023	Financial Stability Conference	Cleveland Fed & Treasury OFR	Cookson presented; Anna Kovner discussed; Treasury OFR co-hosted.
30 Nov–1 Dec 2023	CEMLA/Dallas Fed Financial Stability Workshop	Federal Reserve Bank of Dallas	Cookson presented; Dallas Fed discussant Nitzan Tzur-Ilan.

Following further revision and peer review, the Cookson paper was ultimately published in the February 2026 volume of the *Journal of Financial Economics*.

While its title remained unchanged, its presentation of findings was far more discriminating than that of the original April 2023 manuscript. For instance, the categorical declaration that social media had "fueled" the SVB run disappeared entirely from the published abstract, and the word "fueled" does not appear anywhere in the study.[209] In its place, the authors described evidence that Twitter attention interacted with traditional bank-run vulnerabilities to amplify distress, while concluding, "We find that negative Twitter sentiment does not amplify bank run risks."

The progression from the April 2023 working paper to the peer-reviewed article is consequential. What began as a categorical causal declaration matured into a narrower finding about the interaction of social-media attention with pre-existing financial vulnerabilities during SVB's failure and the broader regional-bank distress that followed.

[209] J. Anthony Cookson, et al., "Social Media as a Bank Run Catalyst," *Journal of Financial Economics* 176 (2026): 104218, https://doi.org/10.1016/j.jfineco.2025.104218.

By the time the Cookson paper reached its more qualified, peer-reviewed form, the assertion that social media had "fueled" the run on SVB had entered the language through which public officials described SVB's failure and, more consequentially, the premises upon which they had begun to reconsider deposit insurance, liquidity requirements, supervisory monitoring, central-bank lending arrangements, and resolution preparedness.

United States

Notably, the proposition preceded publication of the Cookson paper. On March 12th 2023, then-Chairman of the House Financial Services Committee Patrick McHenry described SVB as "the first Twitter fueled bank run."[210] And, at a Senate Banking Committee hearing on March 28th, then-Chairman Sherrod Brown stated that SVB customers had withdrawn $42 billion in less than a day, "fueled by venture capitalists and their social media accounts."[211]

The initial Cookson manuscript was dated April 18th and not formally posted to SSRN until April 24th. The paper therefore did not originate the public narrative, but its early and categorical declaration that social media "fueled" the run supplied apparent empirical support for an explanation that policymakers had already begun to embrace.

The same account entered the debate over deposit-insurance reform. In May 2023, FDIC Chairman Martin Gruenberg testified that SVB's concentrated and connected customer base had "fueled the run through social media." The FDIC's analysis reasoned that the ubiquity of social media and mobile banking could cause future runs to unfold much faster than in the past, forming part of the background against which the FDIC considered expansions of deposit-insurance coverage.[212]

At a July 2023 hearing on deposit-insurance reform, then-Senate Banking Committee Ranking Member Tim Scott similarly described SVB's collapse as "the first social media-fueled bank run." Scott questioned whether a deposit-insurance system designed in the 1930s remained adequate for the technological conditions of the 2020s.[213]

During a September 2023 Senate hearing concerned with artificial intelligence in financial services, Senator Sherrod Brown declared simply that "social media fueled a bank run that crashed Silicon Valley Bank." By then, the phrase was being used to illustrate the broader dangers posed by technological change to the financial system.[214]

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[210] Patrick McHenry, "McHenry Statement on Regulator Actions Regarding Silicon Valley Bank," statement, U.S. House Committee on Financial Services, March 12th 2023, https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=408652.

[211] Sherrod Brown, "Brown: Our Banking System Should Serve Working Families and Small Businesses," opening statement before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, March 28th 2023, https://www.banking.senate.gov/newsroom/majority/brown-banking-system-working-families-small-businesses.

[212] Martin J. Gruenberg, "Remarks on 'Oversight of Prudential Regulators' before the Committee on Financial Services, U.S. House of Representatives," Federal Deposit Insurance Corporation, May 16th 2023, https://www.fdic.gov/news/speeches/2023/spmay1523.html.

[213] Tim Scott, "Scott Remarks on Deposit Insurance Reform," opening statement before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, July 20th 2023, https://www.banking.senate.gov/newsroom/minority/scott-remarks-on-deposit-insurance-reform.

[214] Sherrod Brown, "Artificial Intelligence in Financial Services," opening statement before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, September 20th 2023, https://www.banking.senate.gov/imo/media/doc/brown_statement_9-20-23.pdf.

And for his own part, by May 2024, Barr linked the 2023 experience to possible targeted changes in liquidity requirements, collateral pre-positioning, and banks' operational readiness to obtain central-bank funding.[215]

Europe

European authorities adopted much the same account. In June 2023, then-ECB Vice President Luis de Guindos stated that the extraordinary speed of withdrawals from SVB had been "driven by the widespread use of online banking and the rapid dissemination of news via social media," and argued that banks, supervisors, central banks, and legislators needed to review the tools used to safeguard liquidity and financial stability.[216]

The ECB's November 2023 Financial Stability Review supplied a more empirical, if cautious, treatment. It cited both the Barr Report and the Cookson paper, concluding that social-media communication had "likely accelerated" SVB's failure. Yet its own analysis found no systematic association between negative social-media coverage and deposit movements among euro-area banks during the March turmoil. The ECB accordingly stated that the nature of the relationship required further investigation, nevertheless recommending consideration of higher-frequency deposit data and the use of social-media activity to monitor financial-stability risks.[217]

The European Banking Authority translated the concern into more concrete supervisory expectations. Its examination program for 2024 instructed supervisors to assess whether banks had processes for responding swiftly to inaccurate information capable of producing rapid withdrawals or closing funding markets. Banks were expected to develop metrics measuring social-media sentiment, to incorporate scenarios driven by negative social-media sentiment into stress testing, and to connect those scenarios to recovery plans and contingency-funding arrangements.[218]

The European resolution community reached similar conclusions. Single Resolution Board Chair Dominique Laboureix warned in 2023 that liquidity crises could occur rapidly and be "driven by social media and digital banking." He argued that the European framework, designed principally around crises arising from credit risk, was not well equipped for a bank run driven

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[215] Michael S. Barr, "On Building a Resilient Regulatory Framework," speech at the Federal Reserve Bank of Atlanta's 28th Annual Financial Markets Conference, Fernandina Beach, Florida, May 20, 2024, https://www.federalreserve.gov/newsevents/speech/barr20240520a.htm.

[216] Luis de Guindos, "Banking Union and Capital Markets Union: High Time to Move On," keynote speech at the Annual Joint Conference of the European Commission and the European Central Bank on European Financial Integration, Brussels, June 7th 2023, https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230607~eaf4f8b47a.en.html.

[217] Katharina Cera, Allegra Pietsch, and Andrzej Sowiński, "Financial Stability Considerations Arising from the Digitalisation of Financial Services," November 2023.

[218] European Banking Authority, *European Supervisory Examination Programme for 2024*, EBA/REP/2023/35 (Paris: European Banking Authority, October 2023), https://www.eba.europa.eu/sites/default/files/document_library/Publications/Reports/2023/1062939/European%20Supervisory%20Examination%20Programme%20for%202024.pdf.

through such channels. This became part of a wider argument for strengthening liquidity arrangements in resolution.[219]

By March 2026, that understanding had become embedded in the UK Prudential Regulation Authority's (PRA's) explanation of its post-SVB liquidity reforms. In a speech delivered at the University of Leeds, Phil Evans, a Director in the Prudential Policy Directorate at the PRA, described modern runs as capable of unfolding within hours, "fuelled by social media," and stated that banks' own stress tests should capture the speed and scale of modern withdrawals, "the impact of social media driven communication," and operational obstacles to monetizing assets. He also connected those lessons to requirements concerning collateral positioned for use at central-bank facilities and the governance needed to access such liquidity at speed.[220]

While these authorities often acknowledged that the causal evidence remained incomplete, they nevertheless treated social-media amplification as sufficiently plausible to warrant new supervisory metrics, stress scenarios, communications planning, higher-frequency monitoring, revised liquidity assumptions, and greater operational preparedness.

The Basel-based institutions

The proposition that social media "fueled" the run at SVB received its most direct international reinforcement from the Basel Committee on Banking Supervision. Its October 2023 *Report on the 2023 Banking Turmoil* repeated the Barr Report's formulation almost verbatim, describing highly correlated withdrawals by venture-capital investors and technology firms who, "fuelled by social media," withdrew uninsured deposits "in a coordinated manner at an unprecedented rate." The BCBS explained that its SVB discussion drew heavily upon the Federal Reserve, GAO, California regulator, and Bank of England reports; it did not seek to validate the social-media causal claim.[221]

The Basel Committee's October 2024 liquidity report carried the proposition into supervisory practice. It concluded that liquidity-monitoring tools would be more effective if used with greater frequency for structurally vulnerable institutions, supplied greater detail regarding funding concentrations, and were complemented by external market and social-media information.[222]

The Financial Stability Board's October 2024 treatment was notably more guarded. It found only "some evidence" that social media had influenced recent runs, observed that the depositors involved probably possessed other sources of information, and acknowledged the

[219] Dominique Laboureix, "The Challenges of the European Supervisory and Resolution Framework," speech at the Institute of International and European Affairs, Dublin, May 17th 2023, https://www.srb.europa.eu/en/content/dominique-laboureixs-speech-challenges-european-supervisory-and-resolution-framework.

[220] Phil Evans, "Modernising the Liquidity Framework for Banks and Building Societies," speech at the University of Leeds, March 17th 2026, https://www.bankofengland.co.uk/speech/2026/march/phil-evans-speech-at-the-university-of-leeds.

[221] Basel Committee on Banking Supervision, *Report on the 2023 Banking Turmoil*.

[222] Basel Committee on Banking Supervision, *The 2023 Banking Turmoil and Liquidity Risk: A Progress Report* (Basel: Bank for International Settlements, October 2024), https://www.bis.org/bcbs/publ/d582.pdf.

difficulty of drawing definitive conclusions. Even so, it suggested that authorities consider social-media monitoring as an early-warning tool and emphasized the need for banks and authorities to react far more quickly to extreme withdrawals.[223]

The public-policy influence of the "social-media-fueled" run narrative is thus unmistakable, even if its formulation has become less categorical over time.

Notably, as the public policy dialogue has retreated from the original claim, authorities have come to distinguish three separate phenomena: the communication of information through public or private networks; the technological capacity to transfer funds rapidly; and the underlying financial vulnerabilities that give depositors reason to run.

While social media remains treated as a potential accelerant, it is less often presented as the originating cause of SVB's failure. In that respect, the development of public-policy thinking has begun to track the evolution of the Cookson paper itself: from the categorical claim that social media "fueled" the run toward the narrower proposition that rapid communication may amplify pre-existing vulnerabilities once a run dynamic has already commenced.

External analysis — prepared for Starling by Charles River Associates

Against this backdrop, Starling commissioned Charles River Associates ("CRA") to undertake an independent, data-driven examination of the public social-media discourse surrounding SVB's failure. CRA's July 2026 preliminary findings, attached hereto, explore what effect publicly visible social-media activity may have had upon the run at SVB, if any.[224]

CRA begins with the definitional problem embedded in the established public narrative: the Barr Report does not define "social media," does not explain what it means to say that social media "fueled" the run (triggered? accelerated?), and does not identify the data or analysis upon which that conclusion rests.

CRA notes that the BCBS subsequently defined social media to encompass "public platforms, encrypted messaging channels, internal corporate messaging services and specialist forums" — thus grouping publicly accessible platforms such as Twitter together with private channels such as WhatsApp and Slack.

At that level of generality, however, the proposition that social media "fuelled" the run loses much of its analytical content. It collapses distinct mechanisms — including private coordination, public dissemination and media amplification — into the commonplace observation that interconnected depositors communicated their concerns and acted upon them.

[223] Financial Stability Board, *Depositor Behaviour and Interest Rate and Liquidity Risks in the Financial System.*
[224] Addendum Item 6, *Social Media Analysis Re The Failure of Silicon Valley Bank*, 24 July 2026.

Communication is a familiar feature of bank runs generally; it does not establish that publicly accessible social media played a distinctive causal role at SVB.

For its own analysis, CRA drew a sharper distinction, defining social media as content publicly viewable on the internet. CRA treated telephone calls, emails, texts, direct messages, internal Slack channels, and WhatsApp groups as private communications. It then used Twitter — now X — as a proxy for the public social-media conversation.

CRA collected Twitter data through specialized software providing access to Twitter's full historical "firehose." Using a deliberately broad set of SVB-related search terms, it identified approximately 3.1 million English-language tweets published between October 1st 2022 and March 31st 2023. Ninety-nine percent of those tweets appeared during March 2023 alone. The sheer volume is striking and helps to explain why officials and commentators might have concluded that Twitter played a central role. But the chronology of that activity tells a substantially different story.

Identifying the moment of failure was critical, because Twitter discussion exploded immediately *after* SVB's closure. CRA selected noon Eastern time on March 10th as its analytical cutoff. The California Department of Financial Protection and Innovation had closed SVB at approximately 11:15 a.m. EST; *CNBC* reported the closure at 11:46 a.m. EST; and by noon the event had become public knowledge. CRA therefore classified tweets published before noon as preceding the completed failure of SVB, and those published afterward as post-failure commentary.

Of the approximately 3.1 million tweets CRA collected across the six-month period, only 112,145 — approximately 3.6 percent — were published before noon on March 10th. More than 96 percent appeared after regulators had already taken control of SVB.

CRA divided that smaller pre-closure population into two groups. Only 22,157 tweets, or approximately 0.7 percent of the six-month total, appeared during the pre-run period from October 1st through March 7th. Approximately 90,000 more, or 2.9 percent, appeared during CRA's defined run period, from the beginning of March 8th through noon on March 10th.

As CRA puts it, "[t]he topic of SVB did indeed go viral on social media, but only after the bank run was well underway." The extraordinary volume of post-failure discourse may help explain the intuitive appeal of the established public narrative. It does not establish that the discourse caused the event it followed.

The temporal distribution is even more pronounced when CRA applies the five-day "run period" used in the original Cookson study. Cookson defined that run period as March 8th through March 13th. CRA identified approximately 1.9 million SVB-related tweets during the same interval. But only 89,984 — approximately 4.5 percent — preceded SVB's closure. More than 95 percent were posted after SVB had failed.

CRA next examined the 22,157 tweets published during the five months preceding the run at SVB. Its manual review identified several remarkably prescient warnings about SVB's condition.

- In October 2022, commentators publicly discussed SVB's declining deposits, falling share price, and exposure to the technology-sector downturn.
- On November 2nd 2022, a portfolio manager at Gator Capital Management asked: "Is today the day the market cares that $SIVB is insolvent?" He subsequently asked whether regulators would intervene or "wait until $SIVB starts losing deposits?" and expressed surprise that SVB had not raised capital. That commentator had approximately 18,400 Twitter followers.
- Later that month, venture capitalist Josh Wolfe — whose account had approximately 227,600 followers — highlighted SVB's consecutive investment losses and declining deposit balances, observing that technology-company burn rates were rising while new equity issuance was drying up.
- In January 2023, Raging Capital Ventures, an account with approximately 57,300 followers, described a "much bigger set of problems" at SVB and stated that "the bank would be functionally underwater if it were liquidated today."
- On February 22nd, the *Financial Times* published an article describing the pressure that SVB's condition was attracting from short sellers.
- The following day, venture-capital partner and financial newsletter author Byrne Hobart — who had approximately 59,800 followers — wrote that "Silicon Valley Bank was, based on the market value of their assets, technically insolvent last quarter and is now levered 185:1."
- A responding Twitter user observed that there was a "non-trivial chance" that public discussion of a possible SVB bank run might itself produce one. These exchanges occurred approximately two weeks before the run.

Thus, the vulnerabilities that later became central to the official postmortems were being discussed openly on Twitter months before failure. Those discussions came from financial journalists, venture capitalists, portfolio managers, and short sellers — several of whom commanded substantial audiences. Yet the warnings generated no apparent run dynamic and no detectable market response.

CRA tested that proposition quantitatively. It identified six pre-run tweets that named SVB directly and were published during regular trading hours. For each, CRA examined one-minute trading data for SVB shares over the 60 minutes preceding and following publication, measuring cumulative returns at 15-, 30-, and 60-minute intervals. It compared the observed movements with a placebo distribution constructed from ordinary SVB trading intervals outside the event windows. The resulting event study contained 433 minute-event observations, incorporated event fixed effects, and clustered standard errors at the event level.

The immediate average price movement following the six tweets was less than one-half of one percent — well within SVB's ordinary intraday variation. Over the following hour, the stock drifted downward by approximately one to two percent on average, but that movement was not statistically distinguishable from what might occur during routine trading. Five of the six tweets were followed by price movements within the normal range at every interval examined.

One October 2022 post was followed by a 4.4 percent decline over 60 minutes, just beyond the outer edge of the ordinary range, but CRA found that the average movement across the six events was driven principally by that single observation. The remaining five produced virtually no unusual price response.

The CRA study is necessarily limited. The IEX data used by CRA represented only approximately two to four percent of consolidated trading volume, and six events provide limited statistical power. CRA properly characterizes the results as indicative rather than definitive.

Even so, the record contains no sign of the sharp and sustained market reaction one would expect if investors had read these public warnings and acted upon them. CRA concludes that “social media commentary on SVB’s vulnerabilities produced price reactions statistically indistinguishable from routine intraday noise.”

That result is especially instructive. Public social media carried remarkably accurate warnings about SVB’s underlying condition, including warnings issued by informed and well-followed commentators. It carried discussion of insolvency, declining deposits, unrealized securities losses, extraordinary leverage, exposure to the technology downturn, the possibility of regulatory intervention, and even the possibility of a bank run.

Yet these warnings did not themselves produce observable instability. Information that had generated little reaction for months became consequential only *after* SVB’s March 8th balance-sheet announcement crystallized concerns about SVB’s solvency, and members of its concentrated depositor network began communicating directly with one another across private channels.

CRA then examined the approximately 90,000 tweets published during the run period itself. Here again, the aggregate number is potentially misleading. Most of those posts were not written by SVB depositors, did not report first-hand withdrawal decisions, and did not advise others to withdraw. Much of the discourse concerned SVB only incidentally or treated the bank as an illustration of some other subject.

CRA’s analysis of several prominent subthemes demonstrates this. It identified 5,727 run-period tweets referencing Silvergate — approximately 6.36 percent of all run-period activity. Another 4,764 tweets, or approximately 5.2 percent, addressed cryptocurrency, frequently using SVB’s distress to argue for or against digital assets. More than 4,000 tweets — approximately 4.5 percent — concerned Jim Cramer’s earlier recommendation of SVB stock. Another 633, or approximately 0.7 percent, speculated about possible insider trading by SVB Chief Executive Greg Becker. Other posts debated a possible bailout, compared SVB with Lehman Brothers, criticized or defended regulators, or used the failure to advance political arguments concerning the bank’s supposed cultural orientation.

These figures are important because they demonstrate that a tweet containing the term “SVB” was not necessarily evidence of depositor communication, withdrawal “coordination,” or a causal contribution to the run. A substantial portion of the apparent Twitter eruption consisted of spectators discussing a rapidly developing news event, market participants commenting on SVB's share price, advocates connecting the bank to unrelated policy debates, and social-media accounts repeating or reacting to conventional news coverage.

To identify posts more likely to reflect direct experience, CRA applied a first-person-pronoun filter to tweets published from March 8th through 7:00 p.m. on March 9th — the point by which the withdrawal advice attributed to prominent venture firms had become widely reported. That filter returned only 681 posts, approximately 0.75 percent of the run-period dataset. Manual review further showed that many of those results were false positives, jokes, or otherwise irrelevant.

CRA estimates that Twitter posts actually discussing personal withdrawals from SVB, or withdrawal advice, represented less than 0.6 percent of SVB-related tweets during the run period, and less than 0.02 percent of the complete six-month dataset.

That small subset nevertheless contains important evidence. Individuals reported that "some of our investors have reached out and suggested we move money out of SVB"; another stated, "I got a 4th email from a VC fund suggesting to move money out from SVB." Some founders reported moving their own funds or reducing account balances to the FDIC insurance limit. Others described difficulty accessing SVB's systems or completing withdrawal instructions. Still others used Twitter to solicit business from SVB customers, while journalists used the platform to seek sources with first-hand knowledge.

These posts confirm that venture-capital firms were advising founders to remove funds from SVB on March 9th. But their language also identifies where the operative communications were occurring; the advice had "reached" founders through investors and venture funds; it came by email, text, direct message, telephone, WhatsApp, and internal corporate channels. One individual observed that their "DMs & email threads re SVB are LIT." Another post, attempting to counter the growing alarm, expressly described communications occurring through "email, text, DM, Whatsapp."

CRA therefore concludes that, while the tweets "confirm a wave of coordinated withdrawal advice coming from the VC firms to tech founders," they also indicate that "most of that withdrawal advice happened outside of publicly viewable social media channels." More directly: "This communication and withdrawal advice coordination did not occur on social media — it was referenced on social media after the fact."

The mainstream-media chronology reinforces that distinction. CRA searched the Factiva database containing global news media to reconstruct the volume and timing of conventional news coverage. It identified only 11 English-language articles referring to SVB on March 8th. That number increased to 154 on March 9th, then rose more than tenfold to 1,661 on March 10th. An additional 2,243 articles appeared over March 11th and 12th. Like Twitter activity, mainstream reporting exploded most dramatically as SVB failed and in the immediate aftermath.

CRA found no traditional-media report before March 9th identifying particular venture firms as advising portfolio companies to withdraw.

The first such reporting appeared during the afternoon, after the run was well underway. At 3:02 p.m. EST, *The Information* reported that Union Square Ventures had advised founders to keep only minimal cash balances at SVB. At 3:40 p.m. EST, *TechCrunch* reported that "dozens" of general partners were advising portfolio companies to remove funds and named Founders Fund, Valor Equity, Inspired Capital, and Hustle Fund. *Bloomberg* followed at 3:53 p.m. EST with reporting that SVB was racing to prevent a run as venture funds advised clients to withdraw.

Shortly after 5:00 p.m. EST, *Bloomberg* reported specifically that Peter Thiel's Founders Fund had advised portfolio companies to move their money. *Axios* published similar reporting at approximately 5:29 p.m. EST, naming Coatue, Founders Fund, Union Square Ventures, and others. By approximately 7:00 p.m. EST, the advice attributed to leading venture firms had become widely available through *Bloomberg*, *Axios*, *TechCrunch*, *The Information*, the *Los Angeles Times*, and other conventional media outlets.

Twitter then amplified that reporting. CRA's reconstruction of the Founders Fund discussion provides its clearest quantitative example. More than 1,600 run-period tweets referred to Peter Thiel or Founders Fund. Unlike the overall Twitter dataset — which rose most dramatically on March 10th — the Thiel subtheme reached its peak between 5:00 and 6:00 p.m. EST on March 9th, immediately following *Bloomberg*'s reporting.

At 5:08 p.m. EST, Bloomberg Global Business Editor Graham Starr tweeted the headline that Founders Fund was advising companies to withdraw from SVB; the post received approximately 29,700 views. At 5:10 p.m. EST, *ZeroHedge* repeated the news to a much larger audience, ultimately generating approximately 334,300 views. *Bloomberg*'s article appeared online at approximately 5:11 p.m. EST, and *Bloomberg*'s corporate Twitter account posted the story at 5:16 p.m. EST, receiving approximately 160,000 views.

Between 5:10 and 5:16 p.m. EST, 27 additional Twitter users reposted the *ZeroHedge* item or repeated substantially the same headline. Within the ensuing hour, CRA identified another 338 tweets republishing or commenting upon the Founders Fund story. At its peak, the topic generated approximately 100 posts within a 15-minute period. CRA's statistical analysis of five-minute posting intervals identified the 5:10 p.m. *ZeroHedge* post as the event producing the sharpest increase beyond the existing trend.

This is evidence of Twitter's capacity to amplify information rapidly. But it also identifies the origin and sequence of that information. Founders Fund had already communicated its advice privately; *Bloomberg* obtained and reported that information; and Twitter then distributed the *Bloomberg* reporting to a broader audience. As CRA summarizes the episode, "Twitter served as a platform by which the *Bloomberg* scoop was broadcast to a depositor base capable of moving money quickly after hours; however, the informational content driving the run came from a traditional newsroom."

CRA observed the same pattern for other prominent venture firms. References to Y Combinator, Union Square Ventures, and Coatue first became prominent on Twitter as journalists, publications, and news aggregators posted or redistributed traditional reporting. In each instance CRA examined, the named venture firms' withdrawal advice first appeared publicly in conventional news articles and was then disseminated through social-media accounts.

Twitter provided reach and speed, but the public information being amplified derived principally from traditional media reporting about private conduct already well underway.

This finding does not establish that public social media had no effect. Twitter plainly increased the visibility of the reporting and placed it before hundreds of thousands of users within minutes. It may have reinforced concerns among depositors who had not participated in the earlier private exchanges. It may have encouraged additional late-stage withdrawals, intensified an existing run dynamic, or accelerated activity during the evening of March 9th. CRA's own analysis of the Founders Fund cascade demonstrates a powerful amplification mechanism.

But the existence of amplification does not answer the causal question. CRA did not possess time-stamped withdrawal-request data permitting it to compare each stage of the public communications sequence with the submission of withdrawal instructions delivered to SVB. It therefore could not determine whether depositors acted before or after reading particular Twitter posts, how many depositors were influenced, what portion of the withdrawals might otherwise have occurred later, or whether Twitter materially changed the run's ultimate speed or scale.

CRA also did not obtain the private emails, texts, direct messages, Slack discussions, WhatsApp exchanges, or telephone records through which it infers that much of the coordination occurred. Deleted tweets could not be recovered. The analysis was confined to English-language Twitter activity and did not examine every other publicly accessible platform. The first-person filter required manual review and could not identify every depositor. The pre-run event study involved only six posts and relied upon trading data from a venue accounting for a limited share of total SVB stock volume. And the CRA report is expressly preliminary.

These limitations are material; CRA's findings do not prove the absence of a public social-media effect. But they do expose the inadequacy of the more categorical conclusion asserted by the Barr Report and echoed thereafter by other official reports such as those produced by the BCBS and FSB.

In sum, the available evidence does not support a claim that Twitter triggered the run, served as the principal channel through which withdrawal advice was coordinated, or accelerated withdrawals by any identifiable magnitude.

The CRA findings instead separate propositions that the Barr Report combines. They strongly support the existence of a highly concentrated and interconnected depositor network. They support the conclusion that venture investors communicated coordinated withdrawal advice rapidly within that network. They support the proposition that digital banking enabled depositors to act upon that advice at extraordinary speed. And they demonstrate that public social media later amplified reporting about the resulting run.

But they do not establish that publicly visible social media initiated the coordination. The public chronology points principally in the opposite direction: private communications among venture firms and founders; withdrawal decisions and attempts; reporting by financial journalists; amplification of that reporting on Twitter; and then an overwhelming volume of public commentary after SVB had closed.

The Barr Report's assertion that social media fueled the run at SVB is thus unreliable as written — not because every possible meaning of the assertion is false, but because its central terms are undefined, its causal proposition is unspecified, and it is unsupported by any data or analysis.

If "social media" includes private emails, texts, telephone calls, WhatsApp groups, and internal Slack channels, the assertion reduces to the unremarkable observation that depositors communicated before acting. If it means publicly accessible platforms such as Twitter, CRA's chronology indicates that the most consequential communications began elsewhere and that the overwhelming volume of Twitter activity followed SVB's closure.

> **It was 'communication,' writ large, that fueled the run, which has been true of every bank run in history.**
>
> CRA

If "fueled" means triggered, the evidence weighs against the proposition. And if "fueled" means amplified or accelerated, the possibility remains plausible, but the magnitude and consequence of that effect remain unmeasured.

CRA's final formulation is deliberately broader: "It was 'communication,' writ large, that fueled the run, which has been true of every bank run in history."

That distinction matters for policy considerations. Public social-media monitoring may offer supervisors a useful — if sometimes lagging — indicator of emerging stress. The Founders Fund episode demonstrates how quickly conventional reporting can be distributed across a network capable of moving funds outside ordinary business hours. But monitoring Twitter addresses a different risk from the concentration of uninsured deposits within an interconnected commercial community, the private communications through which influential investors may share advice, and the digital banking technologies through which depositors can act upon that advice immediately.

Before "social-media risk" can form a coherent object of supervision or regulation, policymakers must therefore specify which of these mechanisms they mean. They must distinguish the creation of concern from its communication; private coordination from public amplification; and the dissemination of information from the technological execution of withdrawals. They must also identify what evidence would demonstrate that a particular channel triggered, accelerated, or enlarged a run. The Barr Report does none of this.

Conclusion

We welcome external reviews of SVB's failure.

past-VCS Michael S. Barr
Opening Letter,
The Barr Report

Conclusion

This Preliminary Report has examined seven propositions that, taken together, constitute the established public narrative concerning the failure of Silicon Valley Bank ("SVB"):

1. SVB represented a "textbook case" of mismanagement.
2. Its failure reflected "weaknesses in corporate governance."
3. "Supervisors did not fully appreciate the bank's vulnerabilities."
4. Supervisors "did not take sufficient steps to ensure that [SVB] fixed those problems quickly enough."
5. Federal Reserve supervision was inhibited by an overly "deliberative" approach operating within a "consensus-driven" environment.
6. "A shift in the stance of supervisory policy impeded effective supervision."
7. SVB failed following a run "unprecedented" in its speed and "fueled" by social media.

The April 2023 review commissioned and introduced by then-Vice Chair for Supervision Michael Barr supplied the narrative's architecture and much of its language. The U.S. Government Accountability Office ("GAO") and the Federal Reserve's Office of the Inspector General ("OIG") reached broadly consistent conclusions, but all three relied substantially upon the same supervisory record and none sought evidence from SVB's Independent Directors or management.

The Financial Stability Board ("FSB") and Basel Committee on Banking Supervision ("BCBS") repeated key elements of the narrative put forward by the Barr Report without independently substantiating its findings. The apparent multiplicity of official sources therefore overstates the reliability of those conclusions.

Starling's Probative Inquiry supports some central observations, but others were stated more definitively than the record permitted and now encounter material qualifying or contrary evidence.

Preliminary findings

1. A "textbook case" of mismanagement — SVB failed to manage material financial risks effectively. Rapid deposit growth left concentrated, predominantly uninsured funding supporting long-duration securities, and management did not reduce that exposure as rates rose and deposits declined. But the record does not establish indifference to prudence: SVB moderated deposit growth, constrained lending, and invested liquidity in government-backed securities intended to be conservative. Those measures produced a ruinous interaction of risks.

2. "Weaknesses in corporate governance" — SVB's governance and controls did not keep pace with its growth and complexity, and remediation had not corrected the decisive vulnerability. Yet the record conflicts with an unqualified portrayal of an inexperienced or disengaged board. SVB's directors describe extensive preparation for large-bank supervision, experienced advisers and recruits, new oversight structures, and substantial remediation. Activity does not establish effectiveness, but the firm's risk remediation efforts require testing against evidence the official postmortem reviewers did not seek.

3. "Supervisors did not fully appreciate the bank's vulnerabilities" — This is directionally correct but institutionally imprecise. The Federal Reserve produced no authoritative assessment commensurate with SVB's danger: relevant ratings remained Satisfactory, findings emphasized governance and process, and a contemplated enforcement action omitted interest-rate risk. Yet the facts were visible, and horizontal Risk and Surveillance personnel connected unrealized losses to liquidity stress and sought stronger treatment. What failed was institutional conversion: distributed information and expertise did not become authoritative judgment, a clearly assigned decision, or timely intervention aimed at specific risk reduction.

4. "They did not take sufficient steps" — Ratings lagged, concerns remained informal too long, and a proposed Memorandum of Understanding ("MOU") was unfinished when SVB failed. Yet Federal Reserve Legal personnel had produced an approvable draft; the FRBSF deferred it for a more comprehensive action. Neither the initial nor the later version of the MOU addressed interest-rate risk. A faster process might therefore have produced an earlier MOU that still omitted SVB's principal vulnerability. The deeper failure was delay coupled with failure to identify and prioritize the action most urgently required.

5. An overly "deliberative" supervisory approach — This receives the strongest support from Starling's interviews. Federal Reserve personnel describe unclear decision-rights, numerous review layers, effective "pocket vetoes," and a divorcing of responsibility, authority, and accountability. Deliberation and review are necessary, but failure arises when consultation lacks a terminus, consensus becomes a condition for action, and decision-rights are unclear. Beginning around 2020, the Board's Division of Supervision and Regulation sponsored a high-priority "Future of Supervision" initiative that identified these problems but ended after SVB's failure without implementing any remedy. A senior participant agreed the initiative became "a victim of the problem it [was] trying to solve." The very same conditions that impeded effective supervision at SVB also constrained the relevant reform efforts.

6. "A shift in the stance of supervisory policy impeded effective supervision" — This is the least substantiated principal causal proposition. The Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA") and tailoring rules changed prudential thresholds, and SVB entered large-bank supervision through a poorly managed transition. But those facts do not establish that EGRRCPA, tailoring, or policy signals caused the supervisory failure at SVB. The Fed OIG treated the framework as one factor alongside inadequate resources, insufficient expertise, and the pandemic examination pause; the GAO reached no causal conclusion in this connection. The risks at SVB remained observable and actionable, and the Federal Reserve retained authority to intensify supervision and remediation. The record warrants testing how policy was applied in the field, not attributing a material causal role to the policy shift itself.

7. A run "unprecedented" in its speed, "fueled" by social media — The run's extraordinary speed and scale are established: SVB lost more than $40 billion in deposits on March 9th and anticipated more than $100 billion in withdrawals on March 10th. But the Barr Report defined neither "social media" nor "fueled," and neither the FSB nor BCBS independently verified that causal claim. Independent analysis identified approximately 3.1 million relevant English-language Twitter posts, more than 96 percent posted after SVB had effectively failed; withdrawal-related posts represented less than 0.6 percent of run-period Twitter activity. Public social media may have amplified Twitter activity already underway, but any effect remains unmeasured. The speed is established; attribution to social media is not.

The account emerging from the evidence

The evidence supports a more precise account: SVB accumulated a dangerous interaction of interest-rate and liquidity risk. Its board and management undertook substantial remediation but failed to reduce the exposure capable of destroying the bank before that work matured.

Across its constituent parts, the Federal Reserve possessed the information necessary to recognize that danger. Personnel raised concerns and sought stronger action, but knowledge remained fragmented among frontline examiners, Reserve Bank leadership, supervisory portfolios, horizontal specialists, Board analysts, Legal personnel, senior leadership, and the Governors. The institution lacked a reliable mechanism for determining whose risk assessment should govern, who held final decision-rights, and how judgment would become timely remedial action.

One principal writer of the Barr Report reduced the history to a blunt formulation: "The bank screwed up, we missed it, end of story." The "we missed it" portion is more consequential and complex. The Federal Reserve did not lack information or warnings. It missed the vulnerability — to the extent it did so — because distributed knowledge could not become decisive judgment.

Instead, supervisory activity became a substitute for prioritization. SVB accumulated findings and remediation demands while the risks capable of rapid failure remained insufficiently addressed. A proposed enforcement action embodied that mismatch: it was delayed and revised, yet neither the earlier nor later versions featured interest-rate risk.

The run exposed these accumulated failures — at SVB and across the Federal Reserve System. Many critics point to the fact that SVB lacked a CRO during the decisive time-period. Few observe that the Fed lacked a Vice Chair for Supervision during much of that same time.

Our Continuing Probative Inquiry

These conclusions remain preliminary. Starling has interviewed nearly all currently employed FRBSF supervisory-team members responsible for SVB but has not fully integrated that testimony or reconstructed critical decisions. The continuing Inquiry will:

- seek to reconstruct SVB's decisive duration exposure and trace the resulting warnings through the Federal Reserve supervisory system;
- explore why proposed ratings changes were not adopted, the MOU was delayed, and interest-rate risk was omitted;
- assess whether material warnings now reach an identified decision-maker to produce documented judgment and timely action.

The principal question is whether the Federal Reserve's supervisory operating model now works differently than in 2022 and 2023. Until that end-to-end improvement is demonstrated, there is insufficient basis for confidence that the failures exposed at SVB have been remedied.

Next Steps

Starling will follow the delivery of this Probative Inquiry Preliminary Report with three further reports, each building on the last.

Probative Inquiry Interim Report (Late 2026) — The Interim Report will extend the lines of inquiry explored here and introduce new material pertaining to other ongoing fact-finding efforts. For instance, the Interim Report will feature notes Starling collected through interviews conducted with the SVB examination team based at the Federal Reserve Bank of San Francisco. It will also draw on information contained in interview notes compiled by Board staff during the 2023 production of the Barr Report — materials to which Starling has only recently been granted access. The Interim Report will also incorporate findings curated through Starling's extensive document review, to include public materials and Confidential Supervisory Information, and will identify uncertainties that remain to be resolved.

Probative Inquiry Final Report (Early 2027) — The Probative Inquiry Final Report will mark the completion of the fact-finding phase of Starling's work and will set out the completed evidentiary base established through those Inquiry efforts.

Independent Expert Review & Recommendations for Reform (Q2 2027) — We will offer an Independent Expert Review presenting Starling's assessment of the root causes of any deficiencies in supervision during the events under review. Each conclusion offered will be traceable to the underlying evidentiary record, as such will have been established through our Probative Inquiry. Drawing upon the conclusions set forth in the Independent Expert Review, and informed by Starling's expertise in supervisory culture and risk governance, this final deliverable will set out a detailed and actionable program for strengthening Federal Reserve supervision in a set of Recommendations for Reform. Starling will supplement its own expertise with insights from leading academic and practitioner experts across relevant disciplines worldwide. The resulting recommendations will emphasize reforms that are operationally practical, institutionally credible, and durable.

Interviews Conducted

Table 2: Select Interviews Conducted (Interview Summaries at Appendix A)

Interviews	Date	Summary Report
[Board Staff 1]	2026-06-16	Appendix A-1
[Board Staff 2]	2026-05-05	Appendix A-2
[Board Staff 3]	2026-06-15	Appendix A-3
[Board Staff 4]	2026-06-03	Appendix A-4
[Board Staff 5]	2026-06-03	Appendix A-5
LFBO Leadership: [Board Staff 6] [Board Staff 7] [Board Staff 8]	2026-06-03	Appendix A-6
[Board Staff 9]	2026-06-16	Appendix A-7
Mary Miller (past-Chair of the Audit Committee, SVB)	2026-03-17	Appendix A-8
Randal K. Quarles (past-Vice Chair for Supervision)	2026-03-04	Appendix A-9
S&R Leadership: [Board Staff 10] [Board Staff 11] [Board Staff 4] [Board Staff 12] [Board Staff 13]	2026-02-17 & 2026-02-18	Appendix A-10
[Board Staff 14]	2026-04-30	Appendix A-11
Daniel K. Tarullo (past-Governor)	2026-03-27	Appendix A-12
[Board Staff 15] — twice	2026-06-04 & 2026-06-12	Appendix A-13
[Board Staff 16]	2026-06-09	Appendix A-14
[Board Staff 17]	2026-06-17	Appendix A-15
Mark Watson (past-Head of Management Governance, SVB)	2026-06-11	Appendix A-16
[Board Staff 13]	2026-06-03	Appendix A-17

Table 3: Select Interviews Conducted (Reports Pending)

Interviews	Date	Status
Governor Michael S. Barr		Pending
Vice Chair for Supervision Michelle W. Bowman	2026-06-05	In Production
[Board 1]	2026-07-02	In Production
[FRBSF 1]	2026-07-10	In Production
[FRBSF 2]	2026-07-09	In Production
[FRBSF 3]	2026-07-09	In Production
[FRBSF 4]	2026-07-09	In Production
[FRBSF 5]	2026-07-10	In Production
[FRBSF 6]	2026-07-08	In Production
[FRBSF 7]	2026-07-09	In Production
[FRBSF 8]	2026-07-09	In Production
[FRBSF 9]	2026-07-10	In Production
[FRBSF 10]	2026-07-09	In Production
[FRBSF 11]	2026-07-10	In Production
[FRBSF 12]	2026-07-08	In Production
[FRBSF 13]	2026-07-08	In Production
[FRBSF 14]	2026-07-10	In Production
[FRBSF 15]	2026-07-10	In Production
[FRBSF 16]	2026-07-08	In Production

Documents Reviewed

Table 4: Artifact Review, Public (illustrative)

Date	Issuer	Material (clickable)
2009-03-19	Fed	Speech: Modernizing bank supervision and regulation (Tarullo, Mar 19, 2009)
2014-05-08	Fed	Speech: Rethinking the Aims of Prudential Regulation (Tarullo, May 8, 2014)
2014-06-09	Fed	Speech: Corporate Governance and Prudential Regulation (Tarullo, Jun 9, 2014)
2014-10-20	Fed	Speech: Good Compliance, Not Mere Compliance (Tarullo, Oct 20, 2014)
2015-04-30	Fed	Speech: Tailoring Community Bank Regulation and Supervision (Tarullo, Apr 30, 2015)
2018-07-18	Fed	Speech: Getting It Right — Factors for Tailoring Supervision and Regulation of Large Financial Institutions (Quarles, Jul 18, 2018)
2020-01-17	Fed	Speech: Spontaneity and Order — Transparency, Accountability, and Fairness in Bank Supervision (Quarles, Jan 17, 2020)
2021-12-02	Fed	Speech: Departing thoughts (Quarles, Dec 2, 2021)
2023-03-09	S&P Global	S&P Global Ratings: SVB Financial Group long-term rating lowered (Mar 9, 2023)
2023-03-15	Fitch Ratings	Fitch Ratings: Fitch downgrades First Republic to 'BB'; places ratings on Negative Watch (Mar 15, 2023)
2023-04-09	Reuters	Reuters: Heroes or villains — Short sellers' role in the U.S. bank crisis (Apr 9, 2023)
2023-04-28	Fed	Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank (Barr Report)
2023-04-28	FDIC	FDIC's Supervision of Signature Bank
2023-04-28	New York DFS	Internal Review of the Supervision and Closure of Signature Bank
2023-04-28	GAO	Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures (GAO-23-106736)
2023-05-01	FDIC	Options for Deposit Insurance Reform
2023-05-08	California DFPI	Review of DFPI's Oversight and Regulation of Silicon Valley Bank
2023-05-08	BPI	A Failure of (Self-) Examination: A thorough review of SVB's exam reports yields conclusions very different from the Fed's self-assessment (May 8, 2023)

Date	Issuer	Material (clickable)
2023-05-22	FDIC	Special Assessments Pursuant to Systemic Risk Determination (proposed rule)
2023-06-16	BIS	Annual Economic Report 2023
2023-07-28	Fed / FDIC / OCC	Interagency Policy Statement on Funding and Liquidity Risk Management (updated guidance)
2023-09-08	BIS	BIS Quarterly Review — September 2023
2023-09-08	FDIC	FDIC's Supervision of First Republic Bank
2023-09-18	Fed / FDIC / OCC	Regulatory Capital Rule: Large Banking Organizations and Banking Organizations With Significant Trading Activity (proposed rule)
2023-09-19	Fed / FDIC / OCC	Long-Term Debt Requirements for Large Bank Holding Companies, Certain IHCs, and Large IDIs (proposed rule)
2023-09-19	FDIC	Resolution Plans Required for Insured Depository Institutions with $100B or More in Total Assets (proposed rule)
2023-09-25	Fed OIG	Material Loss Review of Silicon Valley Bank (2023-SR-B-013)
2023-09-27	Fed OIG	Review of the Supervision of Silvergate Bank (public summary)
2023-10-05	BCBS	Report on the 2023 Banking Turmoil
2023-10-10	FSB	2023 Bank Failures: Preliminary Lessons Learnt for Resolution
2023-10-23	FDIC OIG	Material Loss Review of Signature Bank of New York (EVAL-24-02)
2023-11-29	FDIC	Special Assessment Pursuant to Systemic Risk Determination (final rule)
2023-12-01	IADI	The 2023 banking turmoil and deposit insurance systems: Potential implications and emerging policy issues
2023-12-16	BIS	BIS Quarterly Review — December 2023
2023-12-19	FINMA	Lessons Learned from the CS Crisis
2023-12-31	FDIC OIG	Material Loss Review of First Republic Bank (EVAL-24-03)
2024-02-16	Fed	Speech: Supervision with Speed, Force, and Agility (Barr, Feb 16, 2024)
2024-03-06	GAO	Bank Supervision: More Timely Escalation of Supervisory Action Needed (GAO-24-106974)
2024-04-08	GAO	Federal Home Loan Banks: Actions Related to the Spring 2023 Bank Failures (GAO-24-106957)

Date	Issuer	Material (clickable)
2024-06-21	BIS	Annual Economic Report 2024
2024-07-02	SRB	Working Paper Series #4: The 2023 Banking Turmoil
2024-07-09	FDIC	Resolution Plans Required for Insured Depository Institutions with $100B or More in Total Assets (final rule)
2024-08-06	FDIC	Request for Information on Deposits
2024-09-10	Fed	Speech: The Next Steps on Capital (Barr, Sep 10, 2024)
2024-10-05	BCBS	The 2023 banking turmoil and liquidity risk: a progress report
2024-10-23	FSB	Depositor Behaviour and Interest Rate and Liquidity Risks in the Financial System: Lessons from the March 2023 banking turmoil
2024-11-19	GAO	Bank Supervision: Federal Reserve and FDIC Should Address Weaknesses in Their Process for Escalating Supervisory Concerns (GAO-25-106771)
2024-11-20	Fed	Speech: Approaching Policymaking Pragmatically (Bowman, Nov 20, 2024)
2024-12-10	FDIC OIG	FDIC Readiness to Resolve Large Regional Banks (EVAL-25-02)
2025-01-23	GAO	Federal Deposit Insurance Act: Federal Agency Efforts to Identify and Mitigate Systemic Risk from the March 2023 Bank Failures (GAO-25-107023)
2025-02-20	Fed	Speech: Risks and Challenges for Bank Regulation and Supervision (Barr, Feb 20, 2025)
2025-	FRB Chicago	Rushing to Judgement and the banking crisis of 2023
2025-07-21	GAO	Financial Company Bankruptcies: Regulators Continued Efforts to Improve the Resolvability of Large Firms (GAO-25-107720)
2025-09-17	U.S. Senate (PSI, HSGAC)	“THIS INDUSTRY IS A JOKE”: Regional Bank Failures
2025-09-25	Fed	Speech: Preserving the Dynamism and Credibility of Stress Testing (Barr, Sep 25, 2025)
2025-11-18	Fed	Speech: The Case for Strong, Effective Banking Supervision (Barr, Nov 18, 2025)
2025-12-1	Cookson, et al.	Social media as a bank run catalyst
2026-5-1	FDIC	Dissecting Depositor Flight: An Analysis of the Spring 2023 Bank Failures

Addendum Item 1 –

Glossary

Glossary

Note: Descriptions reference conditions during the relevant period and may not reflect current realities.

Term	Meaning in this report
3LoD	Three lines of defense. Common risk-governance model separating responsibilities among the business or operating unit (first line), independent risk management (second line), and internal audit (third line).
AD letter	Administrative Letter. Board Division of Supervision & Regulation ("S&R") instructions to supervisory staff; distinct from SR letters.
AFS	Available-for-Sale securities. Accounting classification for securities carried at fair value, with unrealized gains and losses reflected in other comprehensive income ("OCI") and, in the case of Large Banking Organizations ("LBOs"), reflected in their Common Equity Tier 1 ("CET1") regulatory capital through accumulated other comprehensive income ("AOCI") unless the LBO is eligible to opt out and has opted out.
AOCI	Accumulated Other Comprehensive Income. Component of GAAP equity that includes certain unrealized gains and losses, including on Available-for-Sale ("AFS") securities. Reflected in CET1 capital in the case of LBOs, unless the LBO is eligible to opt out and has opted out.
"Barr Report"	The April 2023 "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," commissioned by then-Vice Chair for Supervision Michael Barr.
BCBS	Basel Committee on Banking Supervision. International standard-setting body for bank regulation and supervision.
BETR	Bank Examinations Tailored to Risk. Risk-tailored examination program that uses financial metrics and risk assessments to allocate examination hours, depth, and scope. Utilized by the Community Banking Organization ("CBO") portfolio and, during the relevant period, the Regional Banking Organization ("RBO") portfolio.
BHC	Bank Holding Company.
BIS	Bank for International Settlements. International financial institution that supports central-bank cooperation and hosts the BCBS and Financial Stability Board ("FSB").

Term	Meaning in this report
Board / FRB	Board of Governors of the Federal Reserve System. The Washington-based governing body of the Federal Reserve System, which holds statutory supervisory authority and delegates most firm-level supervision to the Reserve Banks while retaining oversight.
Board analyst	Board S&R staff member assigned to specific institutions within a supervisory portfolio who acts as the Board-level point of contact for Reserve Bank supervisory staff. Analysts monitor firm supervision, review Reserve Bank work, provide Board-side oversight, and escalate material issues through the Board supervisory chain.
"BPR"	"Business Process Review". An internal review of the System Risk function launched in 2019 that was intended to clarify responsibilities, improve collaboration, and strengthen coordination and control of Risk resources. The review was canceled in 2021 without implementation.
BPS	Basis points. A basis point is 1%/100, so 30 basis points would be 0.30%.
CAMELS	A supervisory rating system that assesses banks on their Capital, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk. Banks receive a rating on each component from 1 (best) to 5 and are also assigned a composite rating. CAMELS applies at the depository institution level; the parent holding company is rated separately using a different rating system.
Category IV	Regulatory tailoring category established by the Board's 2019 tailoring rules, promulgated in response to the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA / Crapo Bill"), for banking organizations generally between $100 billion and $250 billion in assets, subject to the least-stringent enhanced prudential requirements applicable to banks above $100 billion in assets.
CBO	Community Banking Organization. Federal Reserve supervisory portfolio for banks under $10 billion in assets.
CCAR	Comprehensive Capital Analysis and Review. Annual Federal Reserve capital review program for large banking organizations.
CET1	Common Equity Tier 1 capital. Core regulatory capital measure composed principally of common equity and retained earnings, subject to certain regulatory adjustments.
CLAR	Comprehensive Liquidity Analysis and Review. Annual Federal Reserve liquidity review program for large banking organizations.

Term	Meaning in this report
Consent Order	A formal, public enforcement action used to require corrective action or remediation by a supervised institution.
CPC	Central Point of Contact. Reserve Bank supervision employee who leads supervision of an assigned institution and serves as the principal conduit to the Board analyst. Under the Large & Foreign Banking Organization ("LFBO") portfolio, the CPC heads the Dedicated Supervisory Team ("DST") for a single bank.
Crapo Bill	Economic Growth, Regulatory Relief, and Consumer Protection Act (2018) ("EGRRCPA"). See EGRRCPA.
CSI	Confidential Supervisory Information. Nonpublic information obtained, created, or maintained in connection with bank supervision.
CSR	Committee on Supervision and Regulation. Board of Governors committee on supervisory and regulatory matters. The CSR is chaired by the Vice Chair for Supervision ("VCS").
DCCA	Division of Consumer and Community Affairs. A Board division separate from the Division of Supervision & Regulation ("S&R") with consumer-related supervisory responsibilities and other consumer and community affairs functions. DCCA and S&R report to different oversight Governors.
Deputy Director	Deputy Director, Division of Supervision & Regulation ("S&R"). Senior Board officer role responsible for major supervisory functions. A Deputy Director reports to the Division Director.
DFPI	California Department of Financial Protection and Innovation. California state financial regulator, and SVB's chartering authority.
DIF	Deposit Insurance Fund. Used by the Federal Deposit Insurance Corporation ("FDIC") to protect insured depositors against losses. Uninsured depositors may be protected only where doing so satisfies the least-cost test or where the systemic risk exception ("SRE") has been duly invoked.
Discount Window	The Federal Reserve's principal facility for providing secured loans of cash to eligible depository institutions.
Division Director	Director, Division of Supervision & Regulation. Senior S&R officer with authority over the Division and its supervisory functions. Also known as the S&R Director.
Division of Financial Stability	Board division focused on risks to financial stability and the financial system. The Division of Financial Stability is separate from S&R.

Term	Meaning in this report
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act (2010). Federal law enacted after the Global Financial Crisis that created the Vice Chair for Supervision and required enhanced prudential standards for large banking organizations, among other financial-regulatory reforms.
DST	Dedicated Supervisory Team. Reserve Bank team permanently assigned to a large institution under continuous supervision.
Duration	Duration is a mathematical tool to estimate the IRR of a portfolio of debt securities. A duration of 4.8 means that for every 1% increase in the applicable interest rates, the market value of the pool of debt securities will fall by about 4.8%.
EaR	Earnings at Risk. Short-horizon measure of the sensitivity of earnings to changes in interest rates.
Early Remediation	Mandate in section 166 of the Dodd-Frank Act, requiring the Board to issue a regulation that would require Large Banking Organizations ("LBOs") to engage in the early remediation of threats to safety and soundness and U.S. financial stability. The Board proposed a regulation to implement the early remediation mandate in 2012 but has not finalized it. The early remediation mandate is limited to LBOs and was designed to be more effective than Prompt Corrective Action ("PCA") by requiring early remediation based on forward-looking indicators instead of backward-looking capital requirements based on book value.
Early Resolution	Joint resolution of Congress enacted into law as section 143 of the Federal Deposit Insurance Corporation Improvement Act ("FDICIA"), codified at 12 U.S.C. 1823 note. Joint resolution of Congress providing that the Federal banking agencies should use their supervisory authority to facilitate the early resolution of troubled insured depository institutions ("IDIs") to minimize the long-term cost to the DIF.
EGRRCPA / Crapo Bill	Economic Growth, Regulatory Relief, and Consumer Protection Act (2018). Federal law that changed key prudential thresholds and authorized greater tailoring of standards for certain banking organizations.
Enforcement	Federal Reserve enforcement function within the Board's Legal Division that develops and reviews enforcement recommendations arising from supervisory work and prepares legally enforceable actions. Separately, each Reserve Bank has its own Enforcement lawyers and personnel.

Term	Meaning in this report
Enforcement action	Cease-and-desist order and other formal and informal enforcement actions. A formal enforcement action such as a cease-and-desist or consent order is public. An informal enforcement action such as an MOU is confidential.
EPS	Enhanced Prudential Standards. Heightened prudential requirements applicable to certain large banking organizations under Regulation YY.
EVE	Economic Value of Equity. Long-horizon measure of the sensitivity of a bank's economic value to changes in interest rates.
EVE-at-risk model	An EVE-at-risk model measures the impact on a firm's EVE by changes in the applicable interest rates by, say, an instantaneous change of 300–400 bps.
FastTrack	Federal Reserve procedure for relatively simple enforcement matters meeting defined criteria, with an expedited timetable.
FBO	Foreign Banking Organization. Designation for foreign banks and companies controlling foreign banks with U.S. operations. At the time of SVB's failure, all foreign banks operating in the U.S. were supervised within the Large & Foreign Banking Organization ("LFBO") portfolio regardless of size.
FDIC	Federal Deposit Insurance Corporation. Federal deposit insurer, receiver for failed insured banks, and supervisor of certain banking institutions.
FDICIA	Federal Deposit Insurance Corporation Improvement Act (1991). Statute that enacted the least-cost test, the systemic risk exception ("SRE"), the Prompt Corrective Action ("PCA") framework, and Early Resolution.
Fed (the) / System	A catchall term for the Federal Reserve System as a whole: the Board of Governors plus the twelve regional Federal Reserve Banks. Often used interchangeably to refer to specific elements of the system (e.g., the Board, a Reserve Bank, a functional unit, etc.) *without* offering the specific identifier for that element.
FHLB	Federal Home Loan Bank, which provides secured loans of cash to member financial institutions. Borrowings from an FHLB are referred to as advances.
FHC	Financial Holding Company. A bank holding company ("BHC") that elects to be treated as an FHC is entitled to engage in expanded activities such as securities underwriting and dealing not permissible to an ordinary BHC. At the time of election, an FHC must be well capitalized and well managed. If it fails to satisfy either of these conditions, it is subject to restrictions on new activities or acquisitions without the Board's prior approval.

Term	Meaning in this report
Firm Oversight (section)	Board LFBO section of analysts and managers responsible for firm-specific oversight, including review of Reserve Bank ratings, findings, supervisory actions, and supervisory performance.
FOMC	Federal Open Market Committee. The body within the Federal Reserve System that sets monetary policy.
FR	Financial Resiliency.
FRBSF	Federal Reserve Bank of San Francisco. One of the twelve regional Federal Reserve Banks. Reserve Bank that was responsible for supervising SVB.
FRRA	Financial Research, Risk, and Applications group. Functional group organized in late 2025 as part of the Division of Supervision & Regulation ("S&R").
FSB	Financial Stability Board. International body that coordinates and promotes policies for global financial stability.
"Future of Supervision"	Division of Supervision & Regulation High-Priority Initiative ("S&R HPI") intended as a ground-up review of supervisory organization, governance, and operating model, pairing a current-state assessment with forward-looking analysis and recommendations. The S&R HPI was launched in 2020 but was not completed.
G&C	Governance & Controls.
GAO	U.S. Government Accountability Office. Federal audit, evaluation, and investigative agency serving Congress.
Going-Concern Resolution	Resolution of a troubled insured depository institution ("IDI") without closing it or putting it in a Federal Deposit Insurance Corporation ("FDIC") receivership if that would minimize the long-term costs to the Deposit Insurance Fund ("DIF"). If the least-cost test and certain other conditions have been satisfied, the FDIC has the statutory authority to provide financial assistance to facilitate a going-concern resolution, provided that the systemic risk exception ("SRE") has not been invoked.
Gone-Concern Resolution	Resolution of an IDI that has been closed and put into an FDIC receivership or conservatorship. Used to resolve SVB, Signature Bank, and First Republic Bank in 2023. The FDIC has the statutory authority to provide financial assistance to facilitate a gone-concern resolution if the least-cost test is satisfied or the SRE has been invoked.

Term	Meaning in this report
GSIB	Global Systemically Important Banking Organization. A banking organization designated as globally systemically important under the global framework; in S&R shorthand, GSIB also refers to the supervisory portfolio or program for those firms. At the time of SVB's failure, this supervisory portfolio or program was called the Large Institution Supervision Coordinating Committee ("LISCC") portfolio or program.
"Guidance on Guidance"	Interagency policy issued in 2018 clarifying that supervisory guidance is nonbinding and distinct from legally binding rules. The policy was codified by the Board in 2021.
Head of Supervision	The officer in charge of supervision at each of the twelve Reserve Banks.
HLR	Horizontal Liquidity Review. Large & Foreign Banking Organization ("LFBO") horizontal examination focused on liquidity risk and liquidity-risk management across multiple firms.
Horizontal examination / review	Supervisory examination or review applying a substantially common scope across multiple institutions at the same time to assess the same risk area and compare practices and supervisory outcomes.
HPI	High-Priority Initiative. Priority project designation used in S&R's annual strategic-planning process.
HTM	Held-to-Maturity securities. Accounting classification for debt securities intended to be held to maturity and carried on the balance sheet at amortized cost rather than fair value. Unrealized losses on HTM securities are disclosed in regulatory reports but are not reflected in Other Comprehensive Income ("OCI") or Accumulated Other Comprehensive Income ("AOCI"). Selling HTM securities before maturity or hedging their interest rate risk may "taint" the portfolio and affect the HTM classification of the remaining securities.
IDI	Insured Depository Institution.
IRR	Interest Rate Risk. Risk that changes in interest rates will adversely affect a bank's earnings, economic value, or financial condition.
LBO	Large Banking Organization(s). Shorthand for the set of large domestic banking organizations with more than $100 billion in assets, within the Large & Foreign Banking Organization ("LFBO") portfolio.
LCR	Liquidity Coverage Ratio. Basel liquidity standard measuring whether a bank holds sufficient liquid assets to withstand short-term funding stress.

Term	Meaning in this report
Least-Cost Test	Statutory requirement that mandates the Federal Deposit Insurance Corporation ("FDIC") to resolve troubled and failed insured depository institutions ("IDIs") at the least possible cost to the Deposit Insurance Fund ("DIF") of all possible methods of resolving the IDIs. Subject to the systemic risk exception ("SRE").
Legal / Legal Division / Board Legal	The Board's Legal Division. Provides legal advice and rulemaking support and is responsible for financial-institution enforcement in coordination with the Division of Supervision & Regulation ("S&R"). Separately, each Reserve Bank has its own Legal division.
LFBO	Large & Foreign Banking Organization. Federal Reserve supervisory portfolio for domestic banks larger than $100 billion in assets and, at the time of SVB's failure, all foreign banking organizations of any size. The Board develops and oversees the program and Reserve Banks execute firm-specific supervision. Smaller Foreign Banking Organizations ("FBOs") are now part of the Regional & Foreign Banking Organization ("RFBO") portfolio.
LFI	Large Financial Institution. Large banking organization subject to the LFI supervisory framework, including the LFI rating system and applicable Enhanced Prudential Standards ("EPS").
LFI rating system	Large-bank holding company rating framework with Capital, Liquidity, and Governance & Controls components, assigned through separate rating events. Each component can be rated Broadly Meets Expectations (best), Conditionally Meets Expectations, Deficient-1, or Deficient-2.
LISCC	Large Institution Supervision Coordinating Committee. The supervisory program for the largest and most systemically important institutions that was in place during the 2023 stress events. The LISCC program integrated Board and Reserve Bank expertise and incorporated horizontal analysis and information sharing. LISCC is the predecessor to the current GSIB supervisory program.
Liquidity risk	The risk that a firm will not have enough cash or capacity to borrow cash from the FHLBs, the Discount Window, or other facilities to meet its deposit and other obligations when due, including on demand.
Management Groups (MGs)	Designation for various portfolio-level coordination and review fora of Board and Reserve Bank personnel that facilitated coordination of ratings, findings, risks, and supervisory plans. MGs were intended to promote consistency. They were not formal final decision-making bodies.

Term	Meaning in this report
MBS	Mortgage-backed security. A security backed by a pool of mortgage loans. Because borrowers may prepay at any time, MBS cash flows are uncertain and the securities exhibit negative convexity: duration lengthens as rates rise, since refinancing and turnover slow and principal returns later than modeled (extension risk), and shortens as rates fall, since principal returns early and must be reinvested at lower yields (contraction risk). Duration estimates therefore depend on prepayment modeling, and realized speeds can diverge materially from modeled speeds.
MOU	Memorandum of Understanding. Informal, nonpublic enforcement action used to require corrective action or remediation.
MRA	Matter Requiring Attention. Formal supervisory criticism or finding requiring board and management attention and remediation.
MRIA	Matter Requiring Immediate Attention. More severe category of MRA requiring urgent remediation.
NII	Net Interest Income. Difference between interest income earned on assets and interest expense paid on funding.
OASIS	Large & Foreign Banking Organization ("LFBO") supervisory information-technology platform supporting program policies and processes within the Supervisory Program Development and Analysis ("SPDA") group's remit.
OCC	Office of the Comptroller of the Currency. Federal regulator, supervisor, and chartering authority for national banks and federal savings associations.
OCI	Other Comprehensive Income.
OIG	Office of Inspector General for the Board of Governors. Independent Board office responsible for audits, evaluations, and investigations.
"One Fed Supervision"	Post-SVB Federal Reserve supervisory reform initiative intended to improve how supervision is organized and conducted across the System, including governance, ownership, escalation, and coordination.
Operations / Business Enablement	Division of Supervision & Regulation ("S&R") group responsible for operational, administrative, and business-enablement functions that support the Division's supervisory work.
Oversight Governor	Board Governor designated to oversee a supervisory function or division.
Oversight Groups	LFBO Management Group subgroups that oversee major horizontal examination programs, including capital, liquidity, cybersecurity, and resolution planning.

Term	Meaning in this report
PCA	Prompt Corrective Action. Statutory framework established by the Federal Deposit Insurance Corporation Improvement Act (1991) ("FDICIA") that requires progressively stronger supervisory actions as a bank falls below specified capital thresholds.
Policy Group	Functional group within S&R responsible for the development of regulations and policies, including guidance, and coordination of domestic and international policy work. Called Policy at the time of SVB's failure; now called the Regulation & Policy Group.
Portfolio / portfolio team	Supervisory program or team organized by institution size and systemic significance. At the time of SVB's failure, the portfolios included Community Banking Organization ("CBO"), Regional Banking Organization ("RBO"), Large & Foreign Banking Organization ("LFBO"), and Large Institution Supervision Coordinating Committee ("LISCC"), with each having responsibility for program expectations and Board-level oversight.
RACI	Responsible, Accountable, Consulted, and Informed. Common responsibility-assignment framework used to clarify roles in a project, process, or decision.
RBO	Regional Banking Organization. Federal Reserve supervisory portfolio or program for regional banking organizations with assets between $10 billion and $100 billion at the time of SVB's failure. Now includes smaller Foreign Banking Organizations ("FBOs") and has been renamed the RFBO portfolio.
Regulation YY / Reg YY	Board regulation implementing Enhanced Prudential Standards for certain large banking organizations; the principal Dodd-Frank Enhanced Prudential Standards ("EPS") framework was adopted in 2014.
Reserve Bank	One of the twelve regional Federal Reserve Banks, which conduct much of the Federal Reserve System's firm-level supervision under authority delegated by the Board.
RFBO	Regional & Foreign Banking Organization. Successor to RBO portfolio or program, which now includes the smaller FBOs that used to be part of the Large & Foreign Banking Organization ("LFBO") portfolio or program.
RFI rating system	Regional Banking Organization holding company rating framework including Risk management, Financial condition, and Impact components. Each component is rated from 1 (best) to 5.

Term	Meaning in this report
Risk function	Function within the Division of Supervision & Regulation charged with identifying risks that may threaten the safety and soundness of banking organizations within the Board's jurisdiction or U.S. financial stability. At the time of SVB's failure, the Risk function reported up through the Deputy Director for Supervision. Since the end of 2025, part of the Financial Research, Risk, and Applications ("FRRA") group.
SMB	State member bank. State-chartered bank that is a member of the Federal Reserve System.
S&R	Division of Supervision & Regulation at the Board. Board division responsible for the supervision and regulation of banking organizations other than matters within the purview of the Division of Consumer and Community Affairs ("DCCA"), including with respect to the safety and soundness of banking organizations and U.S. financial stability. At the time of SVB's failure, it had three functional groups: Supervision, Policy, and Operations. Reorganized in 2025 to have four functional groups: Supervision, Regulation & Policy, Business Enablement, and Financial Research, Risk, and Applications ("FRRA").
S&R Director	See Division Director.
SPDA	Supervisory Program Development and Analysis. Board Large & Foreign Banking Organization ("LFBO") group responsible for program policies and processes and the business development of supervisory information-technology platforms such as OASIS.
SR letter	Supervision and Regulation letter. Public Board supervisory-policy letter series; distinct from AD letters.
SRE	Systemic Risk Exception. Statutory exception to the least-cost test, allowing the Federal Deposit Insurance Corporation ("FDIC") to use the Deposit Insurance Fund ("DIF") to provide financial assistance to an insured depository institution ("IDI") in receivership or an entity that has acquired an IDI in receivership without complying with the least-cost test.
Supervision Committee	Senior S&R committee comprised of Reserve Bank Heads of Supervision and Board representatives. The committee reviews strategic initiatives and supervisory matters.
Supervision Group	Functional group within the Division of Supervision & Regulation ("S&R") that, during the relevant period, housed the supervisory portfolios, Stress Testing, Risk, and Surveillance, and was responsible for bank supervision.

Term	Meaning in this report
Surveillance function	Function within the Division of Supervision & Regulation charged with identifying risks that may threaten the safety and soundness of banking organizations within the Board's jurisdiction or U.S. financial stability. At the time of SVB's failure, the Surveillance function reported up through the Deputy Director for Supervision. Since the end of 2025, part of the Financial Research, Risk, and Applications ("FRRA") group.
SVB	Silicon Valley Bank.
SVBFG	SVB Financial Group. Bank holding company that was the parent of SVB before its failure.
System Risk Council	Cross-System council established to coordinate System-wide risk issues, with participation from Board Risk, Reserve Bank supervision and Risk leaders, and supervisory-portfolio representatives.
VCS	Vice Chair for Supervision. Statutory Board office established by the Dodd-Frank Act that has the statutory authority and duty to (1) develop and present recommendations to the Board for the supervision and regulation of Board-supervised firms and (2) oversee the supervision and regulation of such firms.

Addendum Item 2 –

Board S&R and FRBSF Supervision

Board S&R and FRBSF Supervision

Board S&R and FRBSF Supervision At-a-glance

Component	Core function	How it connects
Board of Governors	Governing body with plenary authority over all the Board's divisions, the twelve Federal Reserve Banks, and the supervision and regulation of all institutions subject to the oversight of the Federal Reserve.	Acting through the Vice Chair for Supervision, oversaw the supervision and regulation of SVB and SVBFG.
Vice Chair for Supervision	The Vice Chair for Supervision has two statutory duties: (1) "develop policy recommendations for the Board regarding supervision and regulation of depository institution holding companies and other financial firms supervised by the Board" and (2) "oversee the supervision and regulation of such firms."	Oversaw the supervision and regulation of SVB and SVBFG.
Director for Supervision	The Director for Supervision oversees the Federal Reserve's development of bank regulatory policy and its supervision of banking organizations.	Oversaw the supervision and regulation of SVB and SVBFG. Certain key supervisory decisions would be escalated beyond the Deputy Director (below) to the Director.
Deputy Director for Supervision	The Deputy Director for Supervision is responsible for oversight of the Federal Reserve's supervisory programs and supervisory stress testing, specialty supervision, and risk identification activities.	Oversaw the examination and supervision of SVB and SVBFG. All key supervisory decisions would be escalated first to the Deputy Director, with certain matters escalated further to the Director.
Board S&R staff of the RBO and LFBO portfolios	Responsible for overseeing the examination and supervision by the Federal Reserve Banks of institutions with assets between $10 billion and $100 billion (RBO) and between $100 billion and $250 billion (LFBO); established program expectations; monitored consistency; reviewed ratings, findings, and plans.	Oversaw the examination and supervision of SVB and SVBFG before they crossed the threshold of $100 billion in assets (RBO) and after they crossed that threshold (LFBO).
Federal Reserve Bank of San Francisco (FRBSF) Supervisory Staff	Responsible for the day-to-day examination and supervision of RBOs and LFBOs located in its district through examination teams, central points of contact, and Reserve Bank heads of supervision.	Responsible for the day-to-day examination and supervision of SVB and SVBFG.

Management Groups (MGs)	Committees of Board S&R and Reserve Bank supervisory staff (including the FRBSF) that facilitated coordination of supervisory programs. The LFBO portfolio management group also coordinated ratings, findings, risks, and supervisory plans.	MGs were designed to promote consistency, but they did not have formal decision-making authority.
Board S&R Risk and Surveillance Functions	Identified and monitored threats to the safety and soundness of Federal Reserve supervised firms and U.S. financial stability.	Responsible for supplementing the work of examiners in identifying and warning Board S&R and FRBSF supervisory staff, the Vice Chair for Supervision, and the full Board about threats to safety and soundness common to multiple banks, to include SVB, or threats to U.S. financial stability.
Board Enforcement	Group in the Legal Division responsible for all formal and certain informal enforcement actions against supervised firms.	Responsible for drafting the memorandum of understanding that the FRBSF supervisory staff had recommended for SVB and SVBFG but was never issued before SVB failed.
Board Legal	Responsible for legal advice provided to the Board, its leadership, and its staff.	Responsible for making sure Board S&R exercised its authority over SVB and SVBFG consistent with law.

Supervisory portfolios and operating models

Board S&R Portfolio	Institutions	Typical model during 2022-2023
CBO	Responsible for overseeing the examination and supervision by the Reserve Banks of Community Banking Organizations — i.e., banking organizations with less than $10 billion in total assets.	Periodic examinations of CBOs supported by offsite surveillance; supervision centered in the responsible Reserve Bank.
RBO	Responsible for overseeing the examination and supervision by the Reserve Banks of Regional Banking Organizations — i.e., banking organizations with total assets between $10 billion and $100 billion.	Periodic examinations and surveillance of SVB and SVBFG when their assets were $100 billion or less, with greater Board involvement for significant issues, problem firms, and policy questions.

LFBO	Responsible for overseeing the examination and supervision by the Reserve Banks of Large & Foreign Banking Organizations — i.e., firms with total assets over $100 billion and excluding the LISCC portfolio.	Continuous supervision of SVB and SVBFG when their assets crossed the $100 billion threshold by a Dedicated Supervisory Team, supplemented by targeted and horizontal reviews and closer Board portfolio oversight.
LISCC	National program responsible for examining and supervising the eight U.S. GSIBs.	Nationally coordinated program, with substantial Board direction and cross-firm review.

How supervisory work moved

Stage	What happened	Typical output or handoff
1. Assign	Place the institution in a portfolio and assign Reserve Bank and Board contacts.	CPC, examination team or Dedicated Supervisory Team (DST), Board analyst
2. Plan	Develop an annual, firm-specific supervisory plan using portfolio requirements, risk information, prior findings, and institution-specific knowledge.	Annual supervisory plan and examination scope
3. Monitor and examine	Use surveillance, continuous monitoring, full-scope or targeted examinations, and horizontal reviews as applicable.	Workpapers, analysis, and examination conclusions
4. Assess	Determine findings and ratings under the rating system applicable to the institution and activity.	Ratings; MRAs; MRIAs; other findings
5. Vet and consult	Test proposed conclusions within the Reserve Bank and, for significant matters, with Board portfolio staff and leadership.	Consistency review, agreement, or a divergent view
6. Escalate and remediate	Elevate significant concerns, disagreements, or delayed remediation through Reserve Bank and Board management.	Revised plan, stronger finding, downgrade, or enforcement referral
7. Enforce when warranted	Move from supervisory remediation to an informal or formal enforcement instrument, with Legal review and required approvals.	MOU, written agreement, consent order, or other action

Decision rights and escalation

> Typical escalation path: an examination team or DST raised an issue to the CPC; from there it could move to Reserve Bank supervisory management and the Board analyst; then as needed to portfolio leadership, the S&R Deputy Director, the S&R Director, and the Vice Chair for Supervision or Board.

Question	Working answer during the period
Firm-level execution	The responsible Reserve Bank generally examined firms, issued findings, proposed or assigned ratings under delegated authority, and managed the supervisory relationship.
Board oversight	Board staff reviewed significant matters, promoted cross-district consistency, challenged proposals, elevated unresolved issues, and provided oversight of the Reserve Bank supervision functions. Review and consultation gave Board views substantial practical weight.
Cross-system risk	Risk and Surveillance identified broader concerns; the portfolio and Reserve Bank decided how to translate them into firm-specific action.
Reserved decisions	Major policy and specified enforcement matters required Board-level approval. The institution, instrument, and applicable delegation determined the decision-maker.

Enforcement

Step	Process
1	Supervisors identify conditions that may warrant an action and develop a recommendation after internal Reserve Bank review.
2	Board supervisory staff review the recommendation; Legal tests the record against the governing standard and drafts the action.
3	Supervision, Legal, the Reserve Bank, and other relevant authorities revise the proposal and obtain required internal approvals.
4	The action is presented to the institution for consent or proceeds through the applicable formal process.

Five interfaces to watch when reading the Preliminary Report

- Board and Reserve Bank. Board delegated the authority to conduct the day-to-day supervision of firms to the Reserve Banks. The delegated nature of authority gave Board views substantial practical weight, particularly for the LFBO portfolio which was more national in nature.

- Risk and portfolio. Cross-system risk analysis could warn and persuade, but the supervisory portfolio and Reserve Bank supervisory staff controlled whether any action was taken to require threats to safety and soundness or U.S. financial stability to be remediated.
- Portfolio transition. A firm crossing a threshold from one portfolio (e.g., RBO) to another portfolio (e.g., LFBO), could result in changed teams, rating systems, technology, and supervisory expectations.
- Firm-specific vs. horizontal examinations. Firm-specific examinations are examinations of a single firm. Horizontal examinations are the simultaneous examinations typically involving a full portfolio of firms on a narrow scope of review. They can also target smaller groups or cohorts of firms.
- Board S&R and Legal Divisions. Board S&R makes policy decisions; Legal Division assesses legal sufficiency and drafts any enforceable action.

How to read references to “the Federal Reserve” or “the Fed”

- Identify the context. The phrase may mean the Board, a Reserve Bank, an S&R portfolio, Risk or Surveillance, Legal, or a governance committee.
- Supervisory actions. A supervisory finding, a rating, and an enforcement action are related but distinct outputs with different standards and approval paths.
- Distinguish formal authority from practical influence. Reserve Banks often held delegated authority subject to oversight by the Vice Chair for Supervision and Board S&R.
- Look for the handoff. When momentum or ownership is unclear, the relevant boundary is often Board/Reserve Bank, Risk/portfolio, portfolio/portfolio, or Supervision/Legal.

Addendum Item 3 –

Detailed Timeline of Significant Events

Detailed Timeline of Significant Events

The following detailed timeline reflects key events and decisions/actions relating to vulnerabilities that contributed to SVB's failure and were either known to Fed supervisors, or which could and perhaps should have been known to them. We characterize the visibility of each vulnerability as:

> **Could have been evident:** Observable from public financial information or market data.
>
> **Should have been evident:** Apparent when public information was viewed in tandem with supervisory guidance and access to Confidential Supervisory Information (CSI).
>
> **Was evident:** Reflected in supervisory findings, internal analyses, watch-list treatment, or contemporaneously recorded concerns.

In deciding whether vulnerabilities were evident, could have been evident, or should have been evident, it is important to note that Fed supervisors would have had access to all:

- public reports filed by SVB or SVBFG; and
- confidential materials prepared by Fed supervisors, including those prepared by the Risk and Surveillance functions in Board S&R.

The dedicated supervisory team (DST) for SVB and SVBFG at the Federal Reserve Bank of San Francisco (FRBSF) would also have had access to all confidential materials prepared by SVB or SVBFG, including minutes of all board, committee and management meetings, written materials distributed at those meetings, and relevant reports prepared by consultants or other third-party service providers. Board S&R would also have had access to all those confidential materials if escalated by FRBSF or requested by Board S&R staff.

Detailed timeline of significant events

2001 onward: an unusually mobile funding base

- SVB's depositors were predominantly businesses, particularly venture-capital-backed companies and their investors, rather than retail customers.
- SVB maintained a persistently high concentration of uninsured deposits, reaching 97% of total deposits at year-end 2022,[225] an outlier relative to large-bank peers.
- **Could/should have been evident:** SVB's funding structure featured sources of potential liquidity vulnerability that were neither hidden nor newly created in 2023. These structural elements were durable features supervisors could have assessed against the liquidity of the assets funded by those deposits.

2018–2020: FRBSF identifies the volatility and concentration of SVB deposits

- The GAO review found that FRBSF examination documents had identified SVB's deposit concentration and potential funding volatility as early as 2018.[226]
- Supervisors understood that this volatility could create liquidity risk and issued findings relating to liquidity and risk management.
- Yet SVB continued to receive broadly satisfactory CAMELS ratings, including the highest Liquidity rating during much of the period.
- **Was evident:** The essential funding-side vulnerability was expressly known within S&R years before SVB's failure.

2020–2021: SVB's extraordinary growth materially increased the scale of its exposure to liquidity risk and interest-rate risk

- SVB's deposits more than tripled over approximately three years, reaching over $190bn by year-end 2021.[227]
- During 2021 alone, both deposits and total assets nearly doubled.
- 97% of these new deposits were uninsured.[228]
- SVB invested a substantial portion of the inflow in longer-duration Treasury and agency mortgage-backed securities (MBSs), increasing the bank's sensitivity to interest-rate increases.
- Its securities portfolio accounted for nearly 60% of its total assets at year-end 2021.[229]
- It classified nearly 80% of its bond portfolio as held-to-maturity (HTM) securities.[230]

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[225] SVB, Call Report, Schedule RC-O (December 31st 2022). This percentage includes foreign deposits, all of which have been treated as uninsured since 2013. See 12 C.F.R. § 330.1(e)(2); FDIC, Definition of Insured Deposit, 78 Fed. Reg. 56583 (September 13th 2013).
[226] U.S. Government Accountability Office, *Bank Regulation: Preliminary Review of Agency Actions Related to March 2023 Bank Failures*, (April 2023).
[227] SVB, Call Reports, Schedule RC-O (December 31st 2021).
[228] Ibid. This percentage includes foreign deposits, all of which have been treated as uninsured since 2013. See note 225.
[229] SVB, Call Report, Schedule RC and RC-B (December 31st 2021).
[230] SVB, Call Report, Schedule RC-B (December 31st 2021).

- It could not hedge the interest-rate risk (IRR) on any of its HTM securities without marking to market its entire HTM portfolio as required by U.S. GAAP.
- The duration of SVB's portfolio was 4.0 at year-end 2021.[231]
- A duration of 4.0 means that for every 1% increase in interest rates, the economic value of its securities portfolio would fall by about 4.0%.
- SVB's bond portfolio was especially vulnerable to losses from rising interest rates because 80% of it consisted of MBSs, much of them long-duration and fixed rate.
- Unlike certain other fixed-rate debt securities, the duration of MBSs increases as interest rates increase ("extension risk").[232]
- SVB bought its securities when interest rates were historically low — the FOMC set the target range for the federal funds rate at 0% to 0.25% during 2020-2021.
- In January 2010, Board S&R had issued SR 10-1, which warned firms about the danger of buying fixed-rate debt securities during periods of low interest rates.[233]
- Board S&R encouraged firms to use EVE-at-risk models to estimate the potential economic losses from an instantaneous rise in interest rates of 300-400 basis points.[234]
- It also encouraged them to set limits on EVE-at-risk and implement risk-mitigation measures, such as hedging the IRR or reducing the duration of their securities portfolio, if they breached the limits.[235]
- **Could have been evident:** The extraordinary growth, securities purchases, maturity profile of the securities portfolio, funding concentration, and high uninsured-deposit percentage were all substantially observable.
- **Should have been evident:** The combination of a highly mobile deposit base and increasing investment in long-duration securities should have prompted supervisors to assess whether substantial rate increases could leave SVB dependent on selling securities at material losses to meet deposit withdrawals.

June 2021: the RBO-to-LFBO transition exposes basic liquidity weaknesses

- When SVB transitioned from RBO into LFBO supervision, the first focused LFBO liquidity examination reportedly revealed deficiencies extending beyond mere preparedness for heightened LFBO standards.
- According to interview accounts summarized in Starling's Preliminary Report, LFBO portfolio personnel initially considered a deficient Liquidity rating appropriate. However, that judgment was deferred, pending further assessment and a proposed horizontal liquidity review.
- The transition also exposed uncertainty over which portfolio had decision authority and how the prior RBO work should be carried forward by the LFBO team.
- **Was evident:** The LFBO supervisory team encountered meaningful weaknesses at the outset of SVB's transition from the RBO portfolio. The transition should have been an occasion to consider

[231] SVBFG, Annual Report on Form 10-K, at 68 (December 31st 2021).
[232] Federal Reserve Bank of New York, Liberty Street Economics, *Convexity Event Risks in a Rising Interest Rate Environment* (March 24th 2014).
[233] SR 10-1, Attachment: "Interagency Advisory on Interest Rate Risk Management," at 1 (January 11th 2010).
[234] Ibid., at 4–5.
[235] Ibid., at 7–8.

those findings in the context of SVB's rapid growth, unusual funding base, rapidly expanding long-duration securities portfolio, and liquidity readiness.

November 2021: supervisors document extensive liquidity-risk-management deficiencies

- Liquidity examinations produced six findings — two MRIAs and four MRAs — addressing matters that included liquidity stress testing, deposit-outflow assumptions, and contingent-funding planning.
- Supervisors therefore possessed information unavailable to the market about SVB's ability to measure and manage funding pressure.
- The SVB Directors' Statement, referenced in Starling's Preliminary Report, asserts that SVB's remediation plans were submitted by June 2022, but that the Federal Reserve deferred its response while awaiting a horizontal liquidity review planned for 2023.
- **Was evident:** By late 2021, S&R had identified not merely an unusual funding profile but weaknesses in the framework by which it intended to manage that profile under stress.

Late 2021 through 2022: SVB removes or allows interest-rate hedges to expire on its AFS bond portfolio

- At year-end 2021, SVB reported unrealized accounting losses of $1.1bn on its bond portfolio,[236] which was 7.5% of its reported CET1 regulatory capital of $14.6bn.[237]
- The notional value of SVB's relevant interest-rate swaps hedging AFS securities fell from some $11.3bn in the third quarter of 2021 to zero by the third quarter of 2022.[238]
- Management increasingly positioned the balance sheet around an expected decline in interest rates rather than maintaining protection across a range of plausible rate paths. In early 2022, management focused on protecting net interest income in a down-rate scenario, removed hedges that protected against further rate increases, and later considered adding hedges that would benefit earnings if rates fell.
- Meanwhile, the duration of SVB's bond portfolio increased from 4.0 (4.1 in its HTM portfolio) at year-end 2021 to 5.7 (6.2 in its HTM portfolio) at year-end 2022.[239]
- **Could have been evident:** The declining hedge position and increasing securities exposure, and resulting increase in reported portfolio duration, were reflected in financial reporting. Supervisors questioned why SVB had removed its hedges, and the matter contributed to a supervisory finding. Supervisors could combine that information with confidential interest-rate-risk modeling and management explanations.
- **Should have been/was evident:** Management's increasingly one-sided positioning around declining rates should have sharpened concern that SVB was not adequately testing or managing against plausible future increases in interest rates.

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[236] SVB, Call Report, Schedule RC-B, line 8, the sum of the difference between Columns A and B and Columns C and D (December 31st 2021).
[237] SVB, Call Report, Schedule RC-R, Part I, line 19 (December 31st 2021).
[238] SVBFG, Quarterly Reports on Form 10-Q (September 30th 2021 and 2022).
[239] SVBFG, Annual Reports on Form 10-K (December 31st 2021 and 2022).

January–June 2022: SVB responds to EVE-limit breaches by changing its deposit model

- SVB used EVE-at-risk models to measure IRR, established limits on that risk, and required mitigating action if those limits were breached (as is encouraged by SR 10-1).
- SVB's rapid growth and resulting balance-sheet composition contributed to adverse results produced by its EVE-at-risk models.
- SVB regularly breached its EVE-at-risk limits between October 2020 and year-end 2022 but did not implement a risk-mitigation plan.[240]
- In January 2022, SVB proposed extending the deposit model's duration or "curtailment assumption" — representing the modeled period during which deposits would remain with the bank — from approximately 5.5 years to 12 years.
- In April 2022, the bank implemented that change in assumption, reducing the modeled exposure without changing the underlying composition or risk of the balance sheet.
- Even after the change in its curtailment assumption, SVB continued to breach its EVE limits; by June 2022, it was violating both its inner limit (serving as an early-warning boundary) and outer limit (representing a policy violation requiring management attention or action) under a comparatively modest 100-basis-point shock.
- Nevertheless, Fed supervisors did not impose an MRA, MRIA, or enforcement action on SVB requiring it to reduce the duration of its securities portfolio.
- **Was evident:** Management and supervisors knew both that the original EVE model was generating adverse results and that the apparent temporary improvement resulted from changing a modeling assumption rather than reducing the underlying risk.

First quarter 2022: a severe rate environment becomes increasingly foreseeable

- The yield on 5-year Treasury securities rose 90 basis points during 2021 and another 116 basis points during Q1 2022 for a total of more than 200 basis points.[241]
- The Fed did not raise the federal funds rate during 2021 but raised it 25 basis points during Q1 2022,[242] and the FOMC's own projections moved materially upward during the year, including a substantial upward revision in June.
- Supervisory guidance in SR 10-1 encouraged firms to estimate their economic losses assuming an instantaneous rise in interest rates of 300-400 basis points. Supervisors therefore did not need to predict the exact rate path to evaluate SVB against materially higher-rate scenarios.
- At the end of Q1 2022, SVB reported unrealized accounting losses of \$8.3bn on its bond portfolio,[243] which was slightly more than 55% of its reported CET1 regulatory capital of \$15.1bn.[244]

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[240] Addendum Item 5 — Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data, at 15–16, 22–23, Starling, *Preliminary Report* (September 14th 2026).
[241] FRED, Market Yield on U.S. Treasury Securities at 5-Year Constant Maturity, Quoted on an Investment Basis, https://fred.stlouisfed.org/series/dgs5.
[242] Board of Governors of the Federal Reserve System, FOMC's target range for the federal funds rate, https://www.federalreserve.gov/aboutthefed/fedexplained/accessible-version.htm.
[243] SVB, Call Report, Schedule RC-B, line 8, the sum of the difference between Columns A and B and Columns C and D (March 31st 2022).
[244] SVB, Call Report, Schedule RC-R, Part I, line 19 (March 31st 2022).

- **Should have been evident:** The relevant question was no longer whether rates might depart from near-zero levels, but what a plausible rate shock would do to SVB's securities values, depositor behavior/stability, funding needs, earnings, and contingent-liquidity capacity in combination.

April 2022: SVB discloses fundamental interest-rate-risk weaknesses

- SVB presented supervisors with an SR 10-1[245] IRR gap assessment in April 2022 identifying fundamental weaknesses in modeling, reporting, data quality, and governance.[246]
- These weaknesses were not new to the Fed. EVE-limit breaches had been reported since 2020, and examiners had identified the absence of sensitivity testing and back-testing, gaps in policy, ineffective control functions, and weak board and senior-management oversight in their 2020 and 2021 examinations.
- Supervisors documented no concerns in response, made no change to ratings, and left the 2022 supervisory plan unchanged. While consideration was given to an IRR examination for 2022, the LFBO team deferred it to the third quarter of 2023 to prioritize governance and liquidity work.
- **Was evident:** The deficiencies in SVB's interest-rate-risk management did not require inference. The firm disclosed the deficiencies to supervisors in terms that closely tracked the guidance supervisors would apply. Sensitivity to market risk remained rated Satisfactory, and an IRR exam was delayed, implying that supervisors viewed these matters as less urgent than other risks facing SVB.

June 2022: Board Surveillance specifically identifies SVB exposure

- Federal Reserve surveillance analysis identified SVB as having one of the highest ratios of unrealized securities losses to capital among relevant institutions.
- The Fed OIG Material Loss Review subsequently reported that SVB appeared on a systemwide holding-company watch list with an elevated probability of adverse change.[247]
- Surveillance and Risk personnel were considering how unrealized losses could constrain access to contingent funding, including Federal Home Loan Bank borrowing.
- **Was evident:** By this point, the danger was not merely inferable from generic industry conditions; SVB had been specifically identified as at risk through Fed monitoring. However, different parts of the supervisory system appear to have held pieces of the emerging picture, without forming a unified supervisory judgment.

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[245] Board of Governors of the Federal Reserve System, *Interagency Advisory on Interest Rate Risk*. Supervision and Regulation Letters, SR 10-1, January 11th 2010.

[246] Board of Governors of the Federal Reserve System, *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, "Supervision of SVBFG by Critical Risk Areas" (April 28th 2023), at https://www.federalreserve.gov/publications/2023-April-SVB-Supervision-of-SVBFG-by-Critical-Risk-Areas.htm.

[247] Board of Governors of the Federal Reserve System, Office of Inspector General, *Material Loss Review of Silicon Valley Bank,* Evaluation Report 2023-SR-B-013 (Washington: Board of Governors, September 25th 2023), https://oig.federalreserve.gov/reports/board-material-loss-review-silicon-valley-bank-sep2023.htm.

Second quarter 2022: publicly reported unrealized securities losses become material relative to equity

- At the end of Q2 2022, SVB reported unrealized accounting losses of $13.1bn on its bond portfolio,[248] which was slightly more than 80% of its reported CET1 regulatory capital of $16.3bn.[249]
- Domestic deposits declined by 4.3% during the quarter as rising interest rates tightened financing conditions for the venture-capital ecosystem, venture funding slowed, and SVB's startup clients increasingly drew down accumulated cash to fund operations.
- **Could have been evident:** Outsiders could see that the institution was losing deposits while it was carrying securities losses approaching the amount of its reported CET1 regulatory capital.
- **Should have been evident:** Supervisors could see the same developments together with SVB's failed liquidity stress tests, contingent-funding weaknesses, internal limits, deposit concentrations, and management information.

Mid-2022: supervisory downgrades acknowledge deterioration but understate SVB's financial exposure

- FRBSF downgraded SVB's composite and Management CAMELS ratings, while liquidity moved only from the strongest rating to the next-highest rating. Capital, Earnings, Asset quality, and Sensitivity to market risk continued to be treated as satisfactory.
- Those ratings failed to convey that the interaction of interest-rate exposure, uninsured funding, deposit attrition, and weak contingent-liquidity readiness might threaten the institution's viability.
- **Was evident:** Deterioration was sufficiently serious to warrant ratings downgrades. However, the ratings architecture fragmented the problem into components and did not communicate the severity of the combined exposure.

July-August 2022: the proposed enforcement response does not address interest-rate risk

- In July 2022, FRBSF submitted a proposed Memorandum of Understanding ("MOU") addressing board oversight, enterprise risk management, and liquidity-risk management.
- Board Enforcement returned an approvable draft by August. Neither the initial nor the approvable draft of the proposed MOU addressed IRR directly.
- The contemplated action could have proceeded in the fourth quarter of 2022, but supervisors elected to await other examinations and assemble a broader package.
- At the same time, in July 2022, the lead FRBSF supervisor for SVB expressed a positive assessment of the board's engagement after receiving a comprehensive update on remedial efforts undertaken per past guidance received from supervisors.[250]
- On August 31st 2022, responsive to a May 2022 MRIA on risk management, FRBSF received from SVB a detailed assessment of its risk-management gaps and a Management Action Plan ("MAP") outlining remedial measures. The risk-management gap assessment covered 30 items. The MAP

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[248] SVB, Call Report, Schedule RC-B, line 8, the sum of the difference between Columns A and B and Columns C and D (June 30th 2022).
[249] SVB, Call Report, Schedule RC-R, Part I, line 19 (June 30th 2022).
[250] Addendum Item 4, *SVB Directors Statement*.

outlined 13 remedial workstreams and detailed 174 specific action plans, with deliverables, target dates for such, and accountable owners identified.[251]

- **Was evident:** Supervisors had moved beyond observation to consideration of an enforcement response. However, even by February 2023, that response did not target balance-sheet exposure that could convert liquidity pressure into an existential problem.

Third quarter 2022: unrealized securities losses exceed reported CET1 regulatory capital

- At the end of Q3 2022, SVB reported unrealized accounting losses of $18.7bn on its bond portfolio,[252] which was 10% more than its reported CET1 regulatory capital of $17.0bn.[253]
- Despite these unrealized accounting losses, SVB remained well capitalized under the Board's capital rules, which are based on book value as determined by U.S. GAAP and not on fair value or the economic value of a firm's equity.
- Deposits declined another 5.5% during the quarter.
- **Could have been evident:** The core economic problem could be reconstructed from public filings.
- **Should have been evident:** Supervisors had the information necessary to test the balance sheet against plausible combinations of deposit loss, securities sales, increased borrowing, and higher funding costs.

October-November 2022: market participants begin publicly articulating SVB's capital and liquidity vulnerability

- Investors and analysts publicly discussed SVB's declining deposits, falling share price, technology-sector exposure, and the relationship between unrealized securities losses and equity.
- In one early example identified through our efforts: on November 2nd, a portfolio manager publicly asked whether SVB was economically insolvent, whether regulators would wait for further deposit decline, and why the institution had not raised capital.
- These observations did not precipitate an abnormal market reaction at that time.
- **Could have been evident:** Sophisticated market participants were beginning to connect the same balance-sheet facts that were available to Federal Reserve supervisors, who enjoyed further access to much more detailed supervisory information.
- **Was evident:** Public articulation of the bank's vulnerabilities did not cause an immediate funding crisis.

November 2022: interest-rate risk produces a formal finding

- Management had previously characterized SVB as asset-sensitive, meaning its interest-rate-risk simulations projected that higher rates would increase net interest income.
- Supervisors issued an MRA relating to IRR and financial management after management advised that projected net interest income would decline rather than benefit from higher rates.

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[251] Ibid.
[252] SVB, Call Report, Schedule RC-B, line 8, the sum of the difference between Columns A and B and Columns C and D (September 30th 2022).
[253] SVB, Call Report, Schedule RC-R, Part I, line 19 (September 30th 2022).

- The MRA indicated that SVB's IRR simulations were unreliable and impaired its ability to make important asset-liability management decisions. The MRA required SVB's board and senior management to remediate these deficiencies by June 30th 2023.
- A downgrade of SVB's Sensitivity to market risk rating was reportedly being considered but was not completed before the failure. Such a downgrade would have increased supervisory urgency and focus on IRR and might have supported more accelerated remediation than the MRA's June 30th 2023 deadline.
- **Was evident:** The concern had become sufficiently concrete to warrant the issuance of an MRA. The MRA remained largely process-oriented, however, and did not compel prompt reduction of the securities exposure, strengthening of capital, or demonstrable expansion of contingent liquidity.

December 2022: the DST documents SVB's integrated liquidity exposure but treats it as managed

- On December 1st 2022, the SVB DST lead at FRBSF sent a Recession Readiness memorandum to Board S&R, copied to FRBSF leadership.[254] The memo was prepared at the request of the former Deputy Director for Supervision.
- SVB had incurred $49bn, or 12.5%, of year-to-date net client-balance outflows — a measure including off-balance-sheet investments, not solely deposits — and had activated elements of its contingency funding plan. Its 2023 baseline forecast projected a further 16% deposit decline.
- The memo identified liquidity as SVB's greatest exposure and connected client cash burn and weaker fundraising to continuing outflows, reliance on repo and FHLB borrowing, higher funding costs, and difficulty monetizing a securities portfolio carrying "material unrealized losses" without damaging earnings and capital should those markets be disrupted.
- It also recorded that management was considering restructuring the investment portfolio by selling lower-yielding securities and reinvesting at current yields — a restructuring of the kind SVB initiated with its sale of AFS securities on March 8th 2023 — and that the DST was coordinating with SVB's external auditors on the associated accounting treatment.
- Beyond pointing to the interest rate environment as the cause of SVB's "material unrealized losses," the memo did not identify IRR as a key exposure, made no reference to the November 2022 MRA, and listed no supervisory response beyond reviews scheduled for 2023.
- **Was evident:** The DST had assembled in a single document to Board S&R, elements the System had previously held in fragments: a mobile client base in net outflow, a liquidity buffer whose securities carried "material unrealized losses", dependence on secured borrowing to meet withdrawals, and an activated contingency funding plan. The memo nonetheless presented these exposures as managed by SVB and deferred supervisory examination to 2023.

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[254] Federal Reserve Bank of San Francisco, "Recession Readiness – Silicon Valley Bank (SVB)," December 1st 2022, publicly released April 2023, https://www.federalreserve.gov/supervisionreg/files/memorandum-re-recession-readiness-silicon-valley-bank-20221201.pdf.

Year-end 2022: all three principal elements of fragility are simultaneously apparent

- At year-end 2022, SVB reported unrealized accounting losses of $17.7bn on its bond portfolio,[255] which was 104% of its reported CET1 regulatory capital of $17.0bn,[256] down from 110% of reported CET1 regulatory capital at the end of the prior quarter.
- Approximately 97% of deposits were uninsured.[257]
- SVB held approximately $120bn of securities, including $91bn classified as HTM.[258] The duration of its bond portfolio was 5.7, with the HTM portion of that portfolio being 6.2.[259]
- Deposits declined another 2.3% in the fourth quarter, following declines of 4.3% and 5.5% in the preceding quarters.[260] As rising rates tightened financing conditions, venture funding had fallen approximately 62% from its late-2021 peak, increasing the likelihood that SVB's clients would continue drawing down deposits.
- Supervisors also knew that SVB had repeatedly failed its own liquidity stress tests, had not established planned repo capacity, had not performed necessary test transactions, and had pre-positioned limited collateral at the discount window.
- **Could have been evident:** The interaction of long-duration assets, negative securities-adjusted equity, declining deposits, and overwhelmingly uninsured funding was visible in public information.
- **Should have been/was evident:** Confidential supervisory information showed that SVB's contingent-liquidity stance was not reliably attuned to the pressure to which its balance sheet was exposed.

January-February 2023: public warnings become more explicit

- Public commentary increasingly focused on the economic implications of SVB's unrealized losses on its securities portfolio and the unusually high percentage of its deposits that were uninsured.
- SVBFG's Annual Report on Form 10-K, which was released on February 24th 2023, acknowledged that declining AFS values and higher deposit pricing were adversely affecting the bank and disclosed that unrealized HTM losses could limit its strategic alternatives.
- **Should have been evident:** By February, sophisticated market participants were explicitly connecting SVB's unrealized securities losses, declining deposits, and limited equity cushion using only public information.

February 2023: internal Federal Reserve concern reaches senior levels

- The Risk personnel at Board S&R presented systemwide liquidity concerns to Board S&R leadership and the Heads of Supervision at each Reserve Bank. Each Reserve Bank maintained that the relevant risks were being handled.

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[255] SVB, Call Report, Schedule RC-B, line 8, the sum of the difference between Columns A and B and Columns C and D (December 31st 2022).
[256] SVB, Call Report, Schedule RC-R, Part I, line 19 (December 31st 2022).
[257] SVB, Call Report, Schedule RC-O (December 31st 2022). This percentage includes foreign deposits, all of which were uninsured.
[258] SVB, Call Report, Schedule RC-B, line 8, the sum of Columns A and C (December 31st 2022).
[259] SVBFG, Annual Report on Form 10-K, at 66 (December 31st 2022).
[260] SVB, Call Reports, Schedule RC-O (June 30th 2022, September 30th 2022, and December 31st 2022).

- S&R Risk personnel recognized the interaction among higher rates, unrealized losses, funding vulnerability, and contingent-liquidity concerns.
- SVB was selected as an example for a briefing to the full Board of Governors in February 2023, because the head of S&R's Risk function regarded SVB as emblematic of risk across the system and wanted additional senior attention brought to bear.
- The head of the LFBO portfolio objected to the inclusion of SVB in that briefing. Tension between the head of Risk and the LFBO portfolio lead was commented upon regularly during Starling's interviews.
- **Was evident:** Approximately one month before failure, SVB's vulnerability had reached the attention of the Board. No concrete actions ensued immediately thereafter.

March 8th 2023: pre-existing vulnerabilities prompt management actions

- **Was evident:** Amidst ratings agency pressures (Moody's), SVB announced: the sale of substantially all of its AFS portfolio, crystallizing an approximately $1.8bn after-tax loss; a substantial increase in term borrowing; and a proposed $2.25bn capital raise.

Summary: SVB's deepening vulnerability was increasingly knowable, was in many respects actually known, and that knowledge was distributed across multiple parts of the Federal Reserve System.

- By 2018, supervisors knew that SVB's concentrated deposits could be volatile.
- By late 2021, Fed supervisors had identified material weaknesses in SVB's ability to manage liquidity pressures.
- By the end of April 2022, Fed supervisors knew or should have known from SVB's public call report as of March 31st 2022 that the unrealized accounting losses on its bond portfolio were more than half its reported CET1 regulatory capital.
- By June 2022, Board and Reserve Bank personnel had specifically identified SVB's extreme unrealized-loss exposure, internal-limit breaches, and elevated risk profile.
- By October 2022, the FRBSF DST and Board S&R knew or should have known from SVB's public call report that the unrealized accounting losses on its bond portfolio exceeded its CET1 regulatory capital while deposits continued to decline.
- By year-end 2022, the full interaction among duration risk, uninsured and mobile funding, deposit attrition, negative securities-adjusted equity, and insufficient contingent-liquidity readiness was observable by supervisors.
- By February 2023, concerns had reached senior-most S&R officers and the Board. However, the FRBSF DST and Board S&R Leadership failed to issue an MRA, MRIA, or enforcement action to encourage or require SVB to reduce the duration of its bond portfolio, restructure its deposit base to be less run-prone, or become operationally ready to borrow substantial amounts of cash from the FHLBs or the Discount Window if and when a run might occur.
- The reasons for the lack of prompt and decisive action in this case appear to include: (1) a long-standing reluctance by Board S&R supervisory staff to make potentially politically controversial decisions if the person making the decision might be held personally accountable for an incorrect decision, (2) a preference for decisions by consensus of a committee where individual accountability can be shared with others, and (3) an apparently long-standing divorcing of responsibility, authority, and accountability across the Fed supervisory system.

Addendum Item 4 –

SVB Directors’ Statement

WILMERHALE

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April 20, 2026

Mr. Stephen J. Scott
Founder and CEO
Starling Trust Sciences

Re: Statement of the Former Independent Directors of Silicon Valley Bank and SVB Financial Group

Dear Mr. Scott:

The independent directors of Silicon Valley Bank and SVB Financial Group (collectively "SVB") understand that Starling Trust Sciences has been engaged to provide the Vice Chair for Supervision an independent view of the Federal Reserve's supervision of SVB, and that this independent view may offer broader perspectives on how the SVB experience may inform options for improvements in supervision.

In connection with that assignment, you requested the former independent directors to provide information regarding their experience with supervision of SVB by the Federal Reserve. Pursuant to your request, attached is a Statement of the Former Independent Directors of SVB.

The independent directors appreciate the opportunity to provide this Statement. Currently, the so-called "Barr Report" drives public, media and political understanding of the circumstances of SVB's closure. However, as the Statement describes, **the Barr Report was issued without a single conversation with or request for information from any of the independent directors.** The independent directors' Statement describes just how the Barr Report is an incomplete and inaccurate description of the Federal Reserve's own supervision of SVB as well as the efforts of the Board of SVB.

The independent directors believe that this more complete and accurate picture will contribute to the goals of the Vice Chair for Supervision. They would be happy to address any additional questions relevant to the Vice Chair's review.

WilmerHale is counsel to the independent directors. Any follow-up questions can be directed to me at the contact information below.

Sincerely,

Julie L. Williams
Senior Counsel

Statement of the Former Independent Directors of Silicon Valley Bank

April 20, 2026

Executive Summary

This Statement has been prepared by the former independent directors (Independent Directors) of Silicon Valley Bank and its parent holding company, SVB Financial Group, in response to a request from Starling Trust Sciences, in connection with Starling's work on an assignment for the Vice Chair for Supervision of the Federal Reserve Board to provide the Vice Chair with an independent view of Federal Reserve supervision of Silicon Valley Bank and how that experience may teach lessons that would improve bank supervision more broadly.

The media and political understanding of the circumstances of Silicon Valley Bank's closure has been driven by the so-called "Barr Report," which was issued by the Federal Reserve very shortly after Silicon Valley Bank was closed. However, the Barr Report is a one-sided and selective recounting of the supervisory history of Silicon Valley Bank, **issued without a single conversation with or request for information from any of the Independent Directors of SVB.**

The information that we provide in this Statement demonstrates that the Barr Report is a materially incomplete description of the Federal Reserve's own supervision of the Bank as well as a materially misleading characterization of how the Bank responded to the challenges presented by its growth, the unprecedented hike in interest rates in 2022 driven by the Federal Reserve itself, and the Bank's interactions with Federal Reserve supervisors.

The independent directors welcomed this opportunity to provide a more complete supervisory history of Silicon Valley Bank. Our Statement provides relevant context, factual details and firsthand observations. We believe this information will provide the Vice Chair with information not included in the Barr Report and that this more complete understanding will support the Vice Chair's objective of learning lessons from the Silicon Valley Bank experience.

Introduction and Background

The Independent Directors understood from public reports that Starling Trust Sciences (Starling) had been engaged to provide Vice Chair for Supervision (VCS) Michelle Bowman an independent view of the Federal Reserve's supervision of Silicon Valley Bank and SVBFG, including an independent review of the Federal Reserve's internal analysis of the Bank's closure (the so-called "Barr Report"). We also understood that this independent review could offer broader perspectives on how the SVB experience may inform paths for improvements to bank supervision more broadly.

Based on this understanding, with the support of the Independent Directors, Mary Miller, former Chair of the SVB Audit Committee, reached out to Starling with an offer to meet with Starling to provide the perspectives of the SVB Independent Directors regarding their experience with Federal Reserve supervision and particularly the descriptions of Federal Reserve supervisory activities in the Barr Report. As the SVB Independent Directors, we believed that we could offer Starling and VCS Bowman important information that was missing from the Barr Report that could have a bearing on VCS Bowman's initiative. Representatives of Starling asked if Ms. Miller could provide a written submission of matters that were discussed by Ms. Miller with Starling. The Independent Directors prepared this Statement and are providing it in response to that request.[1] We understand that Starling may use this information in the preparation of its report and that this Statement may be provided to VCS Bowman and other parties.

We appreciate this opportunity to provide our Statement because the Barr Report was issued without a single conversation with or request for information from any of the Independent Directors of SVB. The result was a rushed, one-sided picture that ignored important elements of the supervisory history of SVB and included sweeping mischaracterizations regarding the actions of the Independent Directors.

In addition, the release of the Barr Report was accompanied by the release of a selective set of several years' worth of confidential supervisory correspondence to SVB/SVBFG from the Federal Reserve Bank of San Francisco (FRBSF) and California Department of Business Oversight and its successor, the Department of Financial Protection and Innovation (DFPI). This collection was selective in that it did not include the large volume of supervisory communications on other topics issued by the supervisors during the same period, which dealt predominantly with technology, operational and process matters. And even with respect to the supervisory correspondence released as part of the Barr Report, not a single document was released that

[1] Bios of the Independent Directors are attached to this Statement.

had been submitted by SVB/SVBGF in response to the supervisors or that reflected the record of their own governance and risk management actions during the course of the same period.

Thus, the Barr Report was and remains a one-sided, incomplete and inaccurate recounting of the supervisory history of SVB and the Bank's response. And since no other information was either sought or made available in connection with preparation of the Report or thereafter, the Report has, regrettably, driven a deeply flawed public narrative of the supervisory history of SVB.

In our view, these failures mask some valuable lessons that can be learned from the supervisory experience of SVB. We believe that a more complete picture will contribute to the goals of VCS Bowman and welcome the opportunity to provide further information to Starling that has been missing regarding the supervisory history of SVB, including how the Independent Directors carried out their responsibilities and their experience with Federal Reserve supervision.

Our Statement provides a brief background on the business of SVB to understand the context of the supervision of SVB and then provides more details regarding our experience with Federal Reserve supervision of SVB.

Important to Know About SVB

Silicon Valley Bank was unique in many respects as the country's principal banker for and lender to private high-growth companies in the technology, biotech and "innovation" industries and investors in those sectors. The Bank used proprietary and sophisticated credit models to make loans to private companies and enjoyed minimal net credit loss experience (.24% to .10% for 2019-2022) well below banking industry averages. Its loan portfolio was almost entirely floating rate, which differed from many banks' fixed-rate loan portfolios for that period, and played a role in the Bank's overall income and asset management hedging strategy. SVB's loan portfolio suffered no principal losses in this period of rapidly rising rates.

The loan-to-deposit ratio was quite low compared to industry standards, because of conservative underwriting standards, which produced a high degree of liquidity for its clients. Most of SVB's clients maintained deposits in low-interest operational accounts and in amounts that exceeded the FDIC's insured limit of $250,000 and drew down deposits as needed for their business operations. This was the Bank's business model from the Bank's earliest days and was well understood by SVB's supervisors. The relative level of uninsured deposits at the Bank was consistent over the years. It did not waver across various economic cycles and the level of deposits actually grew during the 2008 financial crisis. **SVB's long-time business model was well-understood by the FRBSF and DFPI supervisors and the business model was never criticized.**

The Bank grew rapidly in 2020 and 2021, from $71 billion in assets at the end of 2019 to $211 billion at the end of 2021, a figure that was substantially unchanged at the end of 2022. This rapid growth was not by design but rather was fueled by a combination of Federal Reserve monetary policy actions including prolonged low interest rates and a stock market rally that ignited fundraising in the venture capital and private equity markets, leading to abnormally high deposit inflows to SVB for those two years.

In 2022, the market abruptly changed direction as the Federal Reserve began a sustained campaign of repeated, rapid increases in short-term interest rates, resulting in an unprecedented rise in rates implemented over a short period. In the second quarter of 2022 total deposits began to decline as SVB clients began drawing down deposits to meet operating needs as many had ample cash on deposit from earlier fund-raising rounds.

A portion of the funds received from deposits from 2020 to 2021 was invested in high grade securities held in the Bank's investment portfolio. The construction of that investment portfolio has been subject to retrospective criticism. But, as we describe below, in the relevant period during which that investment portfolio was constructed, the Bank received regulatory ratings of Satisfactory in the relevant rating categories of Asset Quality, Liquidity, and Sensitivity to Market Risk from the FRBSF.

During this time, SVB tempered its balance sheet growth by keeping a significant amount of its clients' funds in money market funds managed and custodied by third parties such as BlackRock and Federated. These client funds were secured by the money market funds' investments, not by SVB's loans or investments. At year-end 2022, $168 billion in client funds were held off balance sheet in these money market funds – nearly 50% of total client deposits – significantly reducing the Bank's asset size to just over $200 billion. Management's decision to hold client assets off balance sheet was an important consideration for the Board, as it demonstrated a willingness to slow growth during a period of rapid inflows to the Bank. **None of this context is in the Barr Report.**

The Bank and SVBFG had a twelve-member board, with an independent chair and only one "inside" director - SVB's Chief Executive Officer. The Board included board members with years of experience at Bank of America, Capital One, JPMorgan and on the Royal Bank of Canada's board. The Board members' qualifications included deep expertise in the venture capital industry, auditing, accounting, banking, investment banking, government and regulatory sectors, financial technology, asset management and consulting. The attached bios provide details. **The Barr Report's sweeping characterization of Board members' lack of relevant experience with large financial institutions is incorrect.**

Laying the Groundwork to be a Large Financial Institution

In 2020 it was apparent that SVB was growing at a pace that would soon cross the threshold of $100 billion in asset size, which would result in SVB/SVBFG being shifted to the Federal Reserve's supervisory program for large financial institutions (LFIs).

In advance of this anticipated change in regulatory status, the Board and management began LFI Readiness work in 2020, making significant investments in people, resources and risk management. The LFI Readiness work is reflected in Board and Governance and Risk and Finance Committees' materials beginning in April 2020 and continued at every meeting in 2021 and 2022. The directors received substantial training in LFI requirements, beginning with Board training in late 2020, educational presentations by experts in board governance and LFI maturity models during various 2021 and 2022 board meetings, including an August 2022 Finance Committee offsite meeting open to all Risk Committee members that was dedicated to the topic of meeting LFI requirements, and which was later shared with the full Board. **None of these LFI readiness efforts are described in the Barr Report.**

The Barr Report provides great detail on the staffing and hours worked at the Federal Reserve Bank of San Francisco, and eventually Washington, to supervise SVB, **but does not provide any detail on SVB's staffing and time spent on efforts to meet the requirements of an LFI.** In fact, the number of full -time employees at SVB grew from 3,564 at the end of 2019 to 8,553 as of December 31, 2022, with 2000 employees added in 2022 alone. These new hires were largely in first- and second-line risk management roles, internal audit, and regulatory affairs. **The Board fully supported management in spending to acquire more LFI talent and experience. This too was not discussed in the Barr Report.**

The Board and its Committees' work grew commensurately with the Bank, with 69 formal meetings of the Board, Audit, Compensation, Credit, Finance, Risk and Governance Committees in 2020, expanding to 86 meetings in 2022. These formal meetings do not reflect the numerous other informal communications that were regularly occurring with management and supervisors, particularly as the supervisors introduced "routine continuous monitoring" for an LFI in 2022. Prior to 2022, supervisors from the Federal Reserve, the FDIC and the California state banking regulator typically met quarterly with the Board. In 2022 the banking supervisors began meeting more frequently with the Board and held separate meetings with Committee chairs.

The Board also supplemented its own experience by reaching out to external experts to help guide the path towards LFI status. In 2020, the Bank retained McKinsey, a premier consulting firm, to advise on and help implement plans to meet the enhanced expectations for an LFI. Sullivan & Cromwell (S&C), a leading law firm in the financial services sector, was also engaged as external counsel for SVB/SFBFG and to advise the Board on their responsibilities and expectations from supervisors. S&C's efforts included a Board training session with S&C led by H. Rodgin Cohen, Senior Chairman of S&C and arguably the leading banking lawyer in the country. Mr. Cohen attended numerous Board meetings in the two years preceding the Bank's closure. Also, in response to supervisors' questions regarding LFI readiness, Roger Ferguson, a former Federal Reserve Board Vice Chair and former CEO of TIAA, and John Gerspach, the former CFO of Citigroup from 2009 to 2019, were engaged as special advisors to the Board and management in April 2022 to help navigate the new landscape. Both individuals participated actively in Board meetings, Executive Sessions of the Board, and Risk and Finance Committee meetings. **None of the Board's work to engage LFI experts and expand readiness efforts is mentioned in the Barr Report.**

Replacement of the Chief Risk Officer

The decision to replace SVB's Chief Risk Officer (CRO) is frequently cited in connection with criticisms of the Bank's risk management. In fact, the circumstances were quite the opposite.

As SVB embarked on LFI readiness, the Board and management recognized that SVB needed a CRO with specific LFI experience and expertise for the task of implementing LFI risk management expectations. The FRBSF supervisors, Board and management were aligned in this assessment. The decision to replace the CRO was deliberated in February 2022 and effected on April 29, 2022. A search for a successor with the necessary skillset was launched immediately using a leading outside search firm. The former CRO was retained for a limited consulting role to support the transition thereafter, which concluded in October 2022.

Any search for a senior-level CRO can take some time and involves an executive search process to identify the right potential candidates. And once candidates are identified and interviewed and one is selected, the chosen candidate may have "garden leave" requirements from their former employer that postpone their ability to take on a new position.

Accordingly, a temporary structure, the Office of the Chief Risk Officer (OCRO) was created, bringing together senior, key risk management managers within the Bank, who had significant LFI experience, to oversee risk management while the search was conducted for someone with the right experience and qualifications to hold this critical role. These seven individuals collectively provided the crucial LFI experience needed by SVB. **FRBSF supervisors were well aware of and supportive of this plan, which is not recognized in the Barr Report.**

By August of 2022, a candidate was identified. An offer was extended and accepted by Kim Olsen, a risk expert with 29 years of experience that included large financial institutions and 10 years at the Federal Reserve Bank of New York. Her garden leave requirements prevented her from beginning her job until Late December, 2022, but she attended a board offsite in

November as an observer and was fully up to speed before she began her job. **The Barr Report does not describe this process nor the supervisors' support.**

The Cliff Effect

Silicon Valley Bank grew rapidly in 2020 and 2021, crossing key regulatory size thresholds in 2021 and 2022. SVBFG shifted from the Federal Reserve's Regional Banking Organization supervisory portfolio to the Large and Foreign Banking Organization supervisory portfolio in February 2021 when its asset size reached $100 billion. It thereafter became subject to the comprehensive Enhanced Prudential Standards under the Federal Reserve's Regulation YY, in July 2022, as a consequence of exceeding the $100 billion asset size threshold for four consecutive quarters. While the Board recognized that SVB would be subject to an enhanced regulatory regime, it is hard to capture the sea change in expectations that took place in this very compressed period of time.

For example, the August 17, 2022, Supervisory Letter issued by the FRBSF referenced in the Barr Report conveyed the first ratings of SVBFG under LFI supervision. The assessment of SVBFG was starkly different from the results in the FRBSF's report of July 9, 2021, barely a year before. That July 9, 2021 report had stated that:

> "Recent board additions and increased engagement have enhanced the group's ability to provide appropriate oversight to management of an increasingly complex technology and operating environment. Clear support for upscaling talent has resulted in more capable functional leadership, and meaningful actions are being taken to address regulatory concerns. New operating roadmaps and project plans are receiving appropriate guidance, and early indications of initial progress to remediate IT/Operational risk governance weaknesses and improve ERM are visible."

At the SVB Bank level, under the CAMELS rating system that applied to the Bank, the Bank had consistently been rated Satisfactory (2) overall and at least Satisfactory in all the CAMELS categories of Capital, Asset Quality, Management, Earnings, Liquidity and Sensitivity to Market Risk. Then, in the August 17 report, the Bank was downgraded to an overall Fair (3). Yet, it's ratings for all the CAMELS categories were still rated Satisfactory (2) except for Management which was rated Fair (3). The one Fair (3) rating for Management drove an overall downgrade of the Bank's rating. Notably, the Bank's ratings for Liquidity, Asset Quality, and Sensitivity to Market Risk were still all rated Satisfactory in August 2022.

The sea change in supervision was manifested in a ballooning list of regulatory Matters Requiring Attention (MRA) and Matters Requiring Immediate Attention (MRIA) focused predominantly on operational matters. Board materials show that during 2019 eight MRAs and no MRIAs were issued; during 2020 six MRAs and one MRIA (for Vulnerability Remediation) were issued. Then in 2021, 17 MRAs and five MRIAs were issued, followed in 2022 by nine more MRAs and six more MRIAs. The growing number of matters called for an extensive response and was a priority of the Board.

What's striking about these matters is the number that were directed to IT, operational and procedural matters. During the 2019 – 2022 period, only three of the 12 MRIAs addressed liquidity matters. One issued in 2019 was closed a year later and two were issued in late 2021 regarding strengthening the liquidity risk management project plan and establishing an effective process for risk to review and challenge liquidity risk management practices. Other MRIAs during the 2019 – 2022 period continued the focus on IT and other operational matters and covered topics such as Vulnerability Remediation, Technology Risk Management, IT Asset Management, Vendor Management, Identity and Access Management Governance and Oversight and the GLBA 501(b) Information Security Program. **This supervisory focus on technology and operational issues is missing from the Barr Report.**

The process for closing an MRA or MRIA can be slow and iterative. The plans to remediate may be submitted multiple times before they are accepted internally by a firm's three lines of defense (a process that is internally rigorous by design) and then the examiners will often want to monitor the corrective action before closing the MRA/MRIA. For example, Federal Reserve supervisors issued two MRIAs and four MRAs in November 2021 on liquidity matters including topics such as liquidity risk management project plans, deposit segmentation and contingency planning – key issues which the Bank set to work on. **The Barr Report does not mention that remediation plans for all six matters were submitted to the Federal Reserve in a timely fashion by their due dates in June 2022,** having cleared SVB's internal risk management and audit functions. **The Report also fails to describe that the Bank never heard back from the Federal Reserve on these plans.** The SVB Regulatory Affairs team reported to the Board that the FRBSF was not targeting a response to those remediation plans until it completed a Q1 2023 Horizontal Liquidity Review.

The Board often felt that it was in a "cat and mouse" dynamic with Federal Reserve supervisors when it asked questions regarding the specifics of what supervisors expected of SVB. For example, in one Board meeting with FRBSF supervisors in June 2022, we were told that the Board needed to figure it out ourselves. As a result, the Bank embarked on a project to try to benchmark best practices by LFIs and hired multiple external experts to advise them and the Board, including initially McKinsey and later Ernst & Young, which was engaged to advise on Board Governance and assessing LFI Maturity. SVB also retained experts, including Accenture and PricewaterhouseCoopers to advise and help implement remediation plans for IT. Board materials reflect that open regulatory matters were regularly tracked, showing the parties responsible for remediation, due dates, progress through review by the three lines of defense, as well as which responses were pending response from supervisors. **None of this information is included in the Barr Report.**

The point we would like to make is simply this: The Barr Report's characterization of the Board as treating resolution of supervisory issues as a compliance exercise and not proactively engaging on these matters, is refuted by the facts. Critical information is missing that would provide a complete and balanced perspective on how the supervisory process was actually conducted. Some facts about those key matters are described below.

The Board's Responses: Important Information Missing from the Barr Report

Focus on Information Technology and Process

At the close of 2020, continuing into early 2021, information technology (IT) was by far the largest area of supervisory concern. MRAs addressed areas such as Information Security/Cybersecurity Risk Reporting Metrics, Firewall Management, Disaster Recovery Risk Governance, Disaster Recovery Plan Testing, Identity Access Management, Risk Definition/Taxonomy, Data Protection and Data Governance. MRIAs were issued in early 2021 for Technology Risk Management, IT Asset Management and Vendor Management. One MRIA was issued in 2020 for Vulnerability Remediation. **None of this context is described in the Barr Report and the supervisory correspondence related to these matters, which would have provided context for the supervisory focus of the Federal Reserve, was not released by the Federal Reserve.**

In January of 2021 the Board considered options to provide greater oversight of technology at the Bank to ensure responsiveness to regulatory expectations. In February 2021 the Board formed the IT Oversight Group which was chaired by Eric Benhamou, along with Kay Matthews (who became Board Chair in May 2022), Dick Daniels and Alison Davis. Between February 2021 and April 2022, the group held 22 meetings, three of which included representatives from the FRBSF and DFPI. In October 2021 Kay, Dick and Kate Mitchell attended the multi-day Federal Reserve Cybersecurity Conference to better understand regulator expectations and processes.

For each MRA or MRIA, a Management Action Plan (MAP) was created and shared with the examiners. In its oversight role, the Board held management accountable for the execution of the MAPs. The IT Oversight Group reviewed the progress of the MAPs and adherence to the committed dates. The Group's Chair then reported the Group's findings to the full Board. The Board also pushed for additional staff to speed progress and close outstanding matters.

By February 2022 the Board recommended that a new Technology Committee replace the IT Oversight Group. At the time, the Audit Committee was overseeing technology regulation, but the sheer volume of IT issues was taking time away from other matters the Audit Committee needed to focus on. After the Board developed a charter and determined Board membership on the Technology Committee, the first meeting was held in July 2022 with Dick Daniels, an executive with substantial IT experience at large financial institutions, chairing the committee.

Governance, Risk Management and Audit

In May 2022, FRBSF and DFPI supervisors delivered three MRIA's on the topics of Governance, Risk Management and Internal Audit that were directed at the Board. Under the leadership of Board Chair Kay Matthews several board members were directed to oversee a rapid response to these matters requiring priority attention. Kay Matthews led the work on Governance reforms along with Eric Benhamou and Garen Staglin (with specific work streams on Board composition, committee structure and compensation), Kate Mitchell led the work on Risk Management, and Mary Miller led the work on Internal Audit.

The following description of work on these three MRIA's is intended to illustrate the level of the Board's oversight and engagement and pertinent interactions with FRBSF supervisors. **This information and the Board's response is not included in the description of the supervisory process in the Barr Report.**

Notably, at the July 2022 Board meeting, two months after the MRIAs were presented, the Board provided regulators with a comprehensive progress update. The ensuing discussion underscored the Board's full commitment to addressing the MRIAs and holding management accountable. Following the meeting with the Board, the lead supervisor at the FRBSF sent the following message by email to the chair of the Board and the CEO:

> "Hi Kay and Greg – the comments you and the key board committee chairs provided were quite constructive.
>
> We have a better sense of how seriously SVB's board understands the forward path.
>
> I appreciate the respectful approach that SVB leadership has taken on all matters related to our supervisory assessment."

Regulators made it clear that we were on the right track.

Governance

A central element of the Governance MRIA was the restructuring of the Board's committee framework and charters, with the objective of centralizing risk oversight in the Risk Committee, a shift from SVB's historical decentralized approach under which Board-level risk oversight was overseen by the individual committees of the Board and reported to the Risk Committee by the respective committee chairs. By February 2022, the Governance and Corporate Responsibility

Committee (GCRC) had already developed and began executing a multi-step plan to sunset the Finance Committee and fold its oversight of capital and liquidity risk into the newly reconstituted Risk Committee. At the same time the GCRC formalized the establishment of the Technology Committee, previously described, which was well-integrated into risk governance.

A further priority to satisfy the Governance MRIA was strengthening the three lines of defense (business unit, risk management and internal audit), along with the Board's engagement with key personnel in these risk management roles. Beginning in 2022, Board and Committee meetings incorporated formal executive sessions with second- and third-line risk personnel, without first line management present, to hear directly from these parties about progress and concerns.

Notably, the Board went beyond the specific requirements of the MRIA to identify 15 additional enhancements to Board practices that were uncovered from our LFI benchmarking work, including refreshing new director onboarding and orientation, enhancing Board and Board committee processes to provide feedback on the quality of management's meeting materials and directing management to enhance the timing of distribution of meeting materials.

The Board recognized that compensation was an important governor of risk management practices. The Barr Report incorrectly states that "Compensation packages of senior management through 2022 were tied to short-term earnings and equity returns and did not include risk metrics." In fact, based on benchmarking undertaken by independent compensation consultants that were hired by and reported to the Board, a larger portion of incentive pay for SVB executives was based on long-term performance in comparison to peers. For example, the CEO's compensation was 71% weighted to long-term results, compared to a 63% industry average.

Prior to 2022, a risk management factor was weighed qualitatively in performance measurement of senior management and incorporated into executive pay determinations. Beginning in 2022, a new matrix of quantitative measurements of risk factors was introduced and applied to the CEO and other senior named executives (NEOs), resulting in significant incentive pay reductions over the previous year. **Details of these results are plainly visible in public documents but not reflected in the Barr Report.**

Risk Management

The new Chair of the Risk Committee (Q2 2022), Kate Mitchell, had been laying the groundwork for reorganizing this Committee since the second half of 2021, with plans to fold the Credit Committee's work into an integrated Risk Committee and begin the implementation of LFI-scaled risk governance. In the first quarter of 2022, Kate, as Chair-elect, focused on drafting a new committee Charter, which remodeled the Board's oversight of risk management, moving from a distributed to an integrated risk model of governance. In addition to the Risk Committee transformation, outside advisors (EY and S&C) were brought in to provide a deeper level of board education and LFI maturity assessment. By early April, two LFI-experienced advisors, Roger Ferguson and John Gerspach were hired.

The new structure became effective in the second quarter of 2022, and to support its mandate, the Risk Committee increased its meeting frequency from quarterly to monthly and the meeting duration from 90 minutes to an average of over three hours. During 2022, the Risk Committee met regularly with the OCRO, consulted with external advisors on LFI best practices for risk management, challenged management to improve its risk reporting, continued its program of board education, monitored the hiring of LFI-experienced staff members, and oversaw the progress of what was referred to as the Risk Transformation Program (RTP), which was later folded into the response to May 2022 MRIA relating to risk governance.

The Risk Committee Chair was actively involved in the search for a permanent CRO and in regular contact with the OCRO. In addition, the Chair began regular continuous monitoring meetings with FRBSF supervisors. These activities were well known to FRBSF supervisors through direct conversations with the Chair as a result of continuous monitoring and through Committee materials, which were shared. **None of these Risk Committee activities is described in the Barr Report.**

In response to the May 2022 MRIA directed at the bank's risk management capabilities, the Bank did a comprehensive gap assessment, which identified 30 gaps against regulatory and industry standards. The Bank submitted an action plan (MAP) that built upon the Risk Transformation Program that was organized into 13 workstreams, including governance, accountability and culture, workforce planning, risk appetite and limits, risk acceptance and reporting, and issues management, among others. The 13 RTP workstreams included 174 individual action plans, each with multiple deliverables, target dates, and responsible "owners".

The MRIA response outlined the governance for oversight of the RTP, setting up a Program Oversight office, which was required to give monthly status reports to the Risk Committee. The MRIA response, including the gap assessment and MAP, was reviewed, challenged, and finally approved by the Risk Committee and the full Board before submission to Federal Reserve supervisors on August 31, 2022. The plan sought to address every identified gap or weakness in SVB's risk management. From the initial gap assessment to the detailed project plan, these initiatives also were well known to FRBSF supervisors. **The Barr Report does not mention these efforts or that there was no response from FRBSF or DFPI supervisors.**

Internal Audit

In responding to the third MRIA on enhancing Internal Audit at SVB to meet LFI requirements, by July 2022 the Internal Audit team in concert with the Audit Committee had developed a gap assessment that identified 19 areas for improvement, with over 106 specific planned actions and 302 measurable work steps. Broadly, the plan covered the purpose of internal audit, investments in people, risk assessment and planning, delivery and execution of internal audits, consolidated reporting to management and the Audit Committee, and the methods and tools in use. The plan identified the owners of each action, due dates, and a dashboard for monitoring status and progress.

In July, the Internal Audit team began bi-weekly meetings with the Audit Committee Chair to monitor progress on the plan. The gap assessment and remediation plan, as well as progress on the plan, was reviewed together with FRBSF supervisors and the Chair of the Audit Committee at the end of August 2022 and in early October. Status of each of the planned actions was transparent and reviewed as "at risk", "on track" or "completed". **No formal response was provided by FRBSF supervisors nor were any concerns conveyed by supervisors on the progress of the plan.**

But in late October 2022 supervisors began a new target exam of the internal audit function at SVB, which covered many of the same areas of the MRIA issued in May of 2022, areas that had been discussed – without criticism – with the supervisors earlier in the month. On December 27, 2022, the results of this target exam were delivered in a new supervisory letter, but no new MRA or MRIA was issued. Some of the findings were modifications in areas covered by existing remediation plans and some were new findings that required new action plans. It felt like supervisors were moving the goalposts. In response, an additional 60 planned actions were added to the original 106 and a new plan was submitted on February 9, 2023. At the same time IA documented interim controls in place while the plan progressed. **The Barr Report mentions none of this work or the sequence of evolving requirements from supervisors.**

Conclusion

The Independent Directors appreciate the opportunity to provide their Statement to Starling for its use in connection with Starling's assignment from VCS Bowman, and as a source of information for VCS Bowman regarding the supervisory history of SVB. In this Statement, we describe multiple examples of actions by supervisors that are missing or misstated in the Barr Report and responsive actions by SVB that are omitted. Our goal in providing these detailed examples of Board engagement and supervisory history is to provide an accurate picture of that supervisory history. The omissions and misstatements in the Barr Report mask some valuable lessons that can be drawn from the SVB experience and we hope will be helpful to the efforts of VCS Bowman.

We would be happy to address any follow-up or clarifying questions.

APPENDIX

BRIEF BIOS OF THE FORMER INDEPENDENT DIRECTORS OF SILICON VALLEY BANK & SVB FG

From SVBFG's 2023 proxy materials

Eric Benhamou

Founder and General Partner of Benhamou Global Ventures

Age: 67
Director Since: 2005
Committees: Governance & Corporate Responsibility (Chair), Finance, Risk
Independent: Yes

Mr. Benhamou is Founder and General Partner of Benhamou Global Ventures, LLC, an investment firm focused on innovative high-tech companies around the world, which he founded in 2003. He also sits on the boards of various public and private technology companies and various educational and philanthropic organizations. His former roles include CEO of 3Com Corporation and Palm, Inc.

Other Directorships and Positions

Current

- CEO and Director, Enterprise 4.0 Technology Acquisition Corp. (since 2021) (role expected to end in April 2023)*
- Director, Grid Dynamics Holdings, Inc. (since 2020)*
- Director of various private companies, including Evinced, Inc. (since 2021), Secret Double Octopus (since 2020), 6d Bytes, Inc. (since 2017), Virtana Instruments Corporation (since 2016), Israel Venture Network (since 2000)
- Advisory Board Member, Hyundai Motor Company, an automotive manufacturer (since 2018)

Education

- Engineering degree from l'École Nationale Supérieure d'Arts et Métiers in Paris, France
- Master's degree in Science from the School of Engineering at Stanford University

Director Qualification Highlights

- Strong strategic, leadership and operational experience in global capital markets, having served as CEO of 3Com and Palm
- Venture capital expertise through leading Benhamou Global Ventures

* Indicates current public company directorship

Elizabeth "Busy" Burr

Former President and Chief Commercial Officer of Carrot, Inc.

Age: 61
Director Since: 2021
Committees: Audit, Technology
Independent: Yes

Ms. Burr is the former President and Chief Commercial Officer of Carrot, Inc. a B2B2C digital health company where she built the go-to market strategy and team including sales, marketing, communications, financial planning, account management, business development and partnerships. In 2023, the Board of Rite Aid Corporation appointed Ms. Burr as interim CEO while it conducts a search for a permanent CEO. Ms. Burr previously served in various executive management roles at Humana Inc., Citi Ventures, Morgan Stanley, Credit Suisse First Boston and Gap, Inc.

Other Directorships and Positions

Current

- Interim CEO and Director, Rite Aid Corporation (director since 2019; interim CEO since 2023)*
- Director, Mr. Cooper Group (since 2019)*
- Director, Satellite Healthcare (since 2018)

Former

- Board Observer, Omada Health, Aspire Health, Livongo Health (2016-2018)
- Advisory Council Member, Smith College (2008-2014)
- Director, Summit Prep Public Charter School (2010-2013)

Education

- Bachelor's degree in Economics from Smith College
- Master's degree in Business Administration from Stanford University

Director Qualification Highlights

- Strong customer experience and business growth strategy expertise, having served as Chief Innovation Officer of Humana, President of Carrot and in various other executive management roles
- In-depth experience in marketing, innovation and digital transformation in the financial services industry through various executive positions at Citigroup, Morgan Stanley and Credit Suisse

Richard Daniels

Former Executive Vice President and Chief Information Officer of Kaiser Permanente

Age: 68
Director Since: 2020
Committees: Technology (Chair), Audit, Compensation & Human Capital, Risk
Independent: Yes

Mr. Daniels retired from Kaiser Permanente, a nonprofit integrated managed care consortium, in 2020, where he served as Executive Vice President and Chief Information Officer. During his 12 years at Kaiser Permanente, he held a number of leadership positions, including Senior Vice President for both Enterprise Shared Services and Business Information. Other previous roles include a variety of management positions at Capital One Financial Corporation, JPMorgan Chase & Co., NetServ, Inc. and DataPoint Corporation.

Other Directorships and Positions

Current

- Director, Fastly, Inc. (since 2021)*
- Director, CSAA Insurance Exchange (since 2020)
- Director, Parkland Center for Clinical Innovation (since 2017)

Education

- Bachelor's degree in business management, Texas State University-San Marcos

Director Qualification Highlights

- Extensive information technology (including cybersecurity) leadership experience, having spent 12 years in various roles at Kaiser Permanente, most recently as Chief Information Officer and prior leadership roles in technology
- Deep leadership experience through his roles at Kaiser Permanente, Capital One, JPMorgan Chase and DataPoint

* Indicates current public company directorship

Alison Davis

Managing Partner and Co-Founder of Blockchain Coinvestors

Age: 61
Director Since: 2020
Committees: Audit, Compensation & Human Capital, Technology
Independent: Yes

Ms. Davis is Managing Partner and Co-Founder of Blockchain Coinvestors, a blockchain venture investor and fund of funds. Ms. Davis has held a variety of key management positions in the finance and venture capital industries, including at Belvedere Capital Partners, Inc., Barclays Global Investors, A.T. Kearney and McKinsey & Company.

Other Directorships and Positions

Current

- Director, Janus Henderson Group PLC (since 2021)*
- Director, Fiserv (since 2014)*
- Director of various private companies, including Pacaso (since 2021) and Collibra (since 2019)
- Director of various organizations, including Renaissance Entrepreneurship Center (Chair since 2023; director since 2009), NACD Northern California Chapter (since 2022) and Cambridge in America (since 2021)

Former

- Director, Ooma (2014-2020)
- Director, Royal Bank of Scotland Group plc (2011-2020)
- Director, Unisys Corporation (2011-2018)

Education

- Bachelor's degree in Economics from Cambridge University
- Master's degree in Economics from Cambridge University
- Master's degree in Business Administration from Stanford University

Director Qualification Highlights

- Broad finance and management expertise, having served in a variety of key management positions within the finance and venture capital industries, as well as in her current role as Co-Founder of Blockchain Coinvestors
- Abundant experience as a director of numerous public and private companies, including for financial services companies

Joel Friedman

Former President (Business Process Outsourcing), Accenture

Age: 75
Director Since: 2004
Committees: Finance (Chair), Governance & Corporate Responsibility, Risk
Independent: Yes

Mr. Friedman retired in 2005 from Accenture PLC, a public company global management-consulting firm, where he held the position of President of the Business Process Outsourcing organization. Over the course of his 34-year career with Accenture, Mr. Friedman held a variety of senior leadership roles including Managing Partner, Banking and Capital Markets, Managing General Partner, Accenture Technology Ventures; and Founder, Accenture strategy consulting practice. He has also served as director on various companies and organizations, including Neustar, Inc., FTV Capital, Endeca Technologies, EXL Services (advisory director), Junior Achievement of Northern California, Accenture, Seisent, Inc. and Calico Commerce, Inc.

Other Directorships and Positions

Current

- Director, Arrow/Cloudstore (since 2023)
- Director, AbilityPath Housing (since 2021) and Advisory Director, AbilityPath (since 2013)
- Advisory Director, Stanford Institute for Economic Policy Research (since 2019)
- Member, Financial Advisory Committee, Town of Hillsborough, CA (since 2018)

Former

- Advisory Director, Currency Capital, a financial services company (2018-2020)

Education

- Bachelor's degree in Economics from Yale University
- Master's degree in Business Administration from Stanford University

Director Qualification Highlights

- Extensive leadership experience in the banking and venture capital industries, having served as President, Managing Partner, Managing General Partner and Founder of Accenture's strategy consulting practice
- Career-long experience with corporate finance and capital markets

* Indicates current public company directorship

Thomas King

Former Chief Executive Officer of Investment Banking at Barclays PLC

Age: 62
Director Since: 2022
Committees: Compensation & Human Capital
Independent: Yes

Mr. King is the former Chief Executive Officer of Investment Banking at Barclays PLC, a financial services company, where he oversaw the banking and markets businesses and also served as the Chair of the Investment Banking Executive Committee and a member of the Barclays Group Executive Committee. Mr. King previously held several senior positions at Citigroup, including Global Head of Mergers and Acquisitions, Head of Investment Banking for the EMEA Region and Head of Corporate and Investment Banking for the EMEA Region. He is currently an Operating Partner at Atlas Merchant Capital LLC, a global investment firm.

Other Directorships and Positions

Current

- Director, Clear Channel Outdoor Holdings, Inc. (since 2019)*
- Director, Radius Global Infrastructure, Inc. (since 2020)*
- Director, Concord Acquisition Corp III (since 2021)*
- Trustee, King School, (since 2017; Chair since 2019)

Former

- Concord Acquisition Corp I (2020-2023)
- Concord Acquisition Corp II (2021-2022)
- Director, Leerink Holdings LLC (2017-2019 (acquired by the Company in 2019))

Education

- Bachelor's degree in Economics from Bowdoin College
- Master's degree in Business Administration from the Wharton School, University of Pennsylvania

Director Qualification Highlights

- Expertise in the financial services industry, including investment banking, markets and corporate banking, through 35 years of banking experience
- Broad leadership experience, including as CEO of Investment Banking at Barclays

Jeffrey Maggioncalda

Chief Executive Officer of Coursera

Age: 54
Director Since: 2012
Committees: Compensation & Human Capital, Technology
Independent: Yes

Mr. Maggioncalda is currently the Chief Executive Officer of Coursera, Inc., an online education company, and also serves on Coursera's board of directors. He previously served as the founding Chief Executive Officer and director of Financial Engines, Inc., a public independent investment advisory firm. Subsequent to his tenure at Financial Engines, Mr. Maggioncalda served as a senior advisor to McKinsey & Company, a global management-consulting firm.

Other Directorships and Positions

Current

- CEO and Director, Coursera (since 2017)*

Former

- CEO and Director, Financial Engines (CEO 1996-2014; director 2011-2014)
- Director, Affinity Circles (2012)
- Senior Advisor, McKinsey & Co. (2017)
- Summer Associate, McKinsey & Co. (1995)
- Associate, Cornerstone Research (1991-1994)

Education

- Bachelor's degree in Economics and English from Stanford University
- Master's degree in Business Administration from Stanford University

Director Qualification Highlights

- Strong management and consulting experience in investment advisory and financial services, having served as CEO and Founder of Financial Engines as well as a Senior Advisor to McKinsey & Co.
- Executive leadership experience, including as CEO of Coursera and Financial Engines

* Indicates current public company directorship

Ms. Matthews is our current Board Chair, and subject to her election, she is expected to continue to serve as our Board Chair during the 2023-2024 director term. Ms. Matthews retired from Ernst & Young LLP ("E&Y"), a multinational professional services firm, in 2019, where she served as Vice Chair of the Americas Executive Board, a member of the Global Practice Group and the Managing Partner of the West Region. During her 36 years at E&Y, she held a variety of leadership positions, including Senior Advisory Partner for key clients in the technology and transportation sectors, and Member of the U.S. Partner/Principal Matters Committee.

Beverly Kay Matthews

Former Vice Chair of the Americas Executive Board, Ernst & Young

Age: 64
Board Chair Since: 2022
Director Since: 2019
Committees: Audit, Governance & Corporate Responsibility, Risk
Independent: Yes

Other Directorships and Positions

Current

- Director, Main Street Capital Corporation (since 2020)*
- Advisory Council Member, Texas Tech University, Rawls College of Business (since 2020)

Former

- Director, Coherent Inc. (2019-2022)
- Member, Global Practice Group, E&Y (2008-2019)
- Other key positions, including Americas Assurance and Advisory Chief Operating Officer and Managing Partner, E&Y (1983-2008)

Education

- Bachelor's degree in Accounting from Texas Tech University

Director Qualification Highlights

- Broad experience within the technology and venture capital/private equity sectors, having served as a Vice Chair of E&Y and working as a Senior Advisory Partner for key clients within the technology, healthcare and biotech fields
- Career-long finance, accounting and auditing experience as an independent auditor

Ms. Miller is the former Under Secretary for Domestic Finance for the U.S. Department of the Treasury ("U.S. Treasury"), a position that she held following her confirmation by the U.S. Senate from March 2012 to September 2014. Ms. Miller also served as Assistant Secretary of the Treasury for Financial Markets from February 2010 to March 2012. Prior to joining the U.S. Treasury, Ms. Miller led the Fixed Income Division for T. Rowe Price Group, Inc., her employer of 26 years.

Mary Miller

Former Under Secretary for Domestic Finance, U.S. Department of Treasury

Age: 67
Director Since: 2015
Committees: Audit (Chair), Finance, Risk
Independent: Yes

Other Directorships and Positions

Current

- Director, The Jeffrey Company, a private investment management company (since 2016)
- Director/Trustee of various organizations, including Johns Hopkins University (since 2022), T. Rowe Price Program for Charitable Giving (since 2021), the Urban Institute (since 2015) and Baltimore Neighborhood Impact Investment Fund (since 2018)
- Member, The Bretton Woods Committee (since 2022)

Former

- Director, ICE Benchmark Administration, a unit of the Intercontinental Exchange (2014-2018)

Education

- Bachelor's degree in Government from Cornell University
- Master's degree in City and Regional Planning, University of North Carolina at Chapel Hill
- Chartered Financial Analyst (CFA)

Director Qualification Highlights

- Distinguished government and finance experience, having served in key positions within the U.S. Department of the Treasury and as a leader in the Fixed Income Division of T. Rowe Price Group
- In-depth experience in financial markets and the investment advisory industry

* Indicates current public company directorship

Kate Mitchell

Partner and Co-Founder of Scale Venture Partners

Age: 64
Director Since: 2010
Committees: Risk (Chair), Finance, Technology
Independent: Yes

Ms. Mitchell is a Partner and Co-Founder of Scale Venture Partners, a venture capital firm that invests in enterprise software companies, and has been instrumental in building the firm's team and strategic direction. She has held various directorships and other senior management positions throughout her career. Prior to founding Scale, Ms. Mitchell spent 20 years in various leadership positions at Bank of America in technology, finance and operations.

Other Directorships and Positions

Current
- Director, Fortive Corporation (since 2016)*
- Director/Member of various organizations, including Venture Forward (since 2019), Silicon Valley Community Foundation (Chair of Finance and IT Committee, since 2016), GP Advisory Council of the Institutional Limited Partners Association (since 2016), Private Equity Women Investor Network (Vice Chair since 2010)
- Steering Committee Member, IADEI (Institutional Allocators for Diversity Equity & Inclusion) (since 2022; advisor 2021-2022)

Education
- Bachelor's degree in Political Science from Stanford University
- Master's degree in Business Administration from Golden Gate University

Director Qualification Highlights
- Extensive knowledge of the venture capital industry, having served as Partner and Co-Founder of Scale Venture Partners
- Financial industry expertise, having spent 20 years in various leadership roles at Bank of America

Garen Staglin

Founder and Proprietor of Staglin Family Vineyard

Age: 78
Director Since: 2011
Committees: Compensation & Human Capital (Chair), Governance & Corporate Responsibility, Risk
Independent: Yes

Mr. Staglin is the founder and proprietor of Staglin Family Vineyard, founded in 1985 in the Rutherford region of Napa Valley. Over the past 40 years, Mr. Staglin has also held a variety of positions in the financial services and insurance industries, as well as directorships of various public and private companies. He was also the Founder and President of Bring Change 2 Mind, a nonprofit organization dedicated to addressing mental illness.

Other Directorships and Positions

Current
- Chair and Co-Founder, One Mind (since 1995)
- Co-Chair, Healthy Brains Global Initiative (since 2022)
- Vice Chair, Profit Velocity Solutions (since 2007)
- Advisory Director, FTV Capital (since 2004)

Former
- Chair, ExlService Holdings, Inc. (2014-2021; Director 2005-2022)
- Director and Founder, Solera, Inc. (2005-2011)
- Director, First Data Corporation (1992-2003)
- Director of various other public and private companies, including, NVoicePay, Inc. (2010-2019), Freerun Technologies (2003-2014), Bottomline Technologies (2007-2012), QRS Corporation (1991-2001) and CyberCash, Inc. (1996-2000)

Education
- Bachelor's degree in Engineering–Electrical and Nuclear from the University of California, Los Angeles
- Master's degree in Business Administration, Finance and Systems Analysis from Stanford University

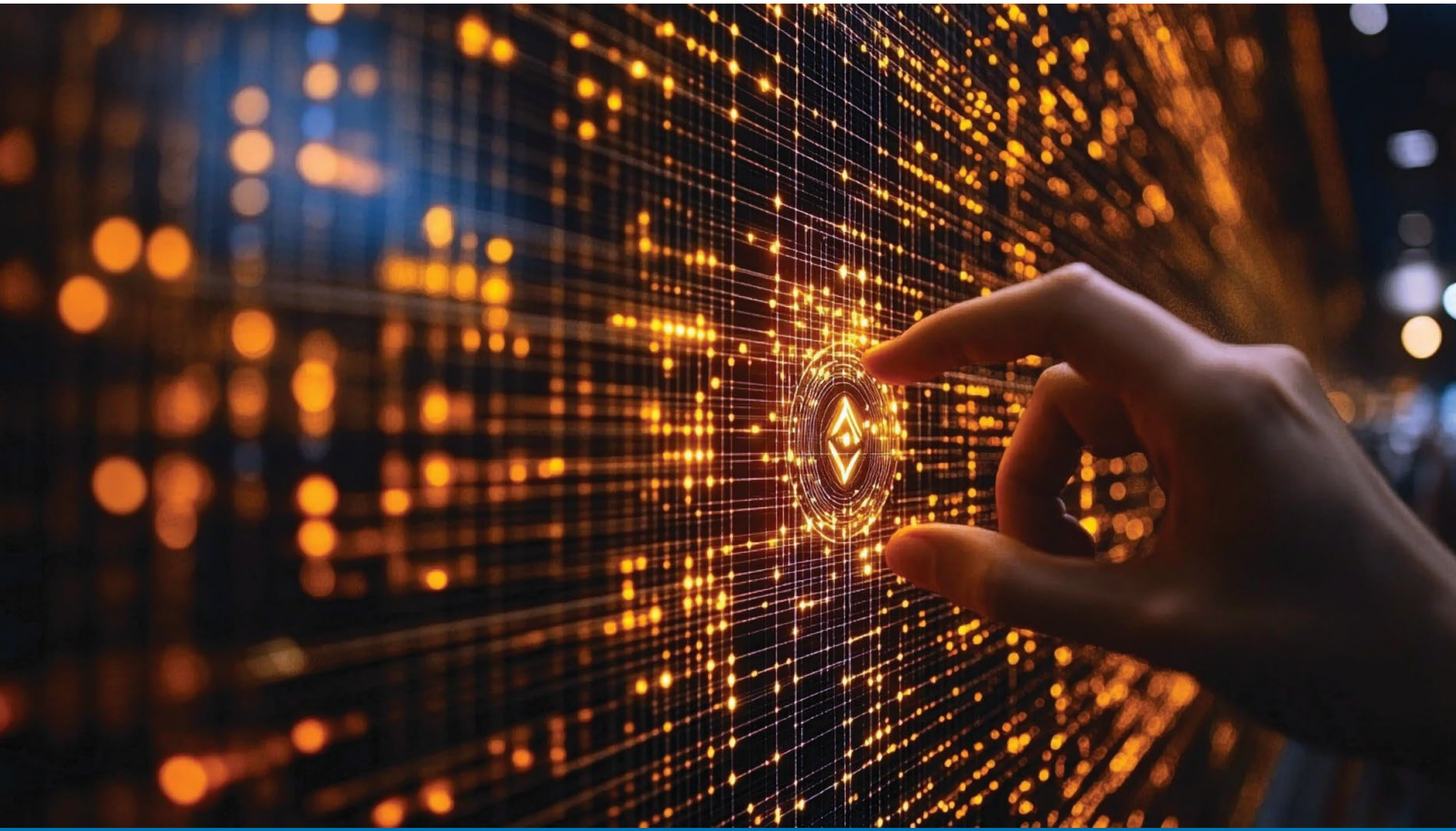
Director Qualification Highlights
- Extensive experience in financial services, particularly transaction and payment processing, having served on the boards of Profit Velocity Solutions and ExlService Holdings
- Deep experience in the premium wine industry as founder and proprietor of Staglin Family Vineyard

* Indicates current public company directorship

Addendum Item 5 –

Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data

CRA Charles River Associates



Preliminary Findings:

Analytical Account of the Failure of Silicon Valley Bank as Viewed in Public Data

Prepared for:

Starling Advisory Group

Prepared by:

Charles River Associates

1201 F Street NW, Suite 800
Washington, DC 20006

Date: September 12, 2026

CRA Project No. D117745

Disclaimer

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Detailed information about Charles River Associates, a tradename of CRA International, Inc., is available at www.crai.com.

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Executive Summary

Silicon Valley Bank (SVB) was closed by the California Department of Financial Protection and Innovation on the morning of Friday, March 10, 2023, and placed into Federal Deposit Insurance Corporation (FDIC) receivership. The closure followed months of visible financial deterioration and growing concern about the bank's solvency and liquidity. On Thursday, March 9, SVB faced approximately $54 billion in deposit withdrawal requests – and an alleged $100 billion in additional withdrawal requests for the following day.[1]

This report provides an independent, analytical account of SVB's collapse for Starling Advisory Group. It takes as the starting point the information contained in the Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank (April 28, 2023) (Barr Report), Federal Reserve Office of Inspector General's "Material Loss Review of Silicon Valley Bank" (2023-SR-B-013, September 25, 2023) (OIG Report), and Preliminary Review of Agency Actions Related to March 2023 Bank Failures (GAO-23-106736, April 28, 2023) (GAO Report), including the finding that SVB's failure reflected weaknesses in bank management, supervisory escalation, and the regulatory framework. The report's purpose is to identify the **observable** vulnerabilities, decision points, and analytical gaps that allowed for a fragile bank to fail with unprecedented speed. It seeks to identify signals known or reasonably knowable to management, the board, and supervisors that could have prompted them to initiate more timely and effective action.

This report also challenges the popular "Twitter panic" account of SVB's depositor run. Public social-media discussion largely followed the withdrawal surge rather than initiating it, while digital banking may have facilitated the rapid execution of withdrawal decisions already underway. Neither created the bank's underlying vulnerability. SVB failed because a rapid run hit a fragile bank. Fragility refers to a bank's susceptibility to material deterioration in its financial condition under reasonably foreseeable adverse conditions. At SVB, fragility arose from the interaction of high duration exposure, an overwhelmingly uninsured and concentrated deposit base, and weak contingent-liquidity readiness. Rising rates had already produced unrealized securities losses that exceeded reported equity on a securities mark-to-market basis, leaving SVB with negative securities-adjusted book equity.[2] These conditions did not make failure inevitable, but they meant that a sufficiently salient funding shock could force asset sales, crystallize losses, and rapidly erode capital and confidence.

The factors behind SVB's fragility should have become apparent in 2022.

- Balance-sheet vulnerabilities. Its high duration exposure was publicly observable in quarterly-released Call Reports and earnings reports; its largely uninsured concentrated deposit base was a structural feature of the bank; and its unrealized securities losses approached reported equity in 2022:Q2 and exceeded it in 2022:Q3.[3]

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[1] See FDIC, "Dissecting Depositor Flight: An Analysis of the Spring 2023 Bank Failures" (May 2026), page 6. The study reports that approximately $41 billion of the requested $54 billion was withdrawn from SVB on March 9, while $1 billion was canceled and the remainder was scheduled for the following day and subsequently canceled. The Federal Reserve Board's 2023 report, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," reported that SVB management expected more than $100 billion in additional outflows on March 10. According to the FDIC analysis, only $12.1 billion were cleared for execution on the morning of March 10, 2023.

[2] "Securities-adjusted book equity" means reported book equity less unrecognized fair-value losses on held-to-maturity securities. The measure is a partial mark-to-market adjustment and not a complete EVE calculation.

[3] Reported book equity already reflects the after-tax effect of unrealized AFS losses through accumulated other comprehensive income (AOCI), whereas SVB's AOCI opt-out excluded those effects from CET1 regulatory capital. Accordingly, this report uses CET1 as the denominator for SVB when comparing total unrealized securities losses with capital, avoiding the double counting that would arise from using equity already reduced by AFS unrealized losses.

- Interest rate sensitivity. The bank's sensitivity to rapidly rising interest rates should have been known to management or supervisors, and its interest rate risk management posture was known to supervisors.
- Weak contingent-liquidity planning. Material weaknesses in SVB's contingent-liquidity readiness were also known to supervisors. The bank had repeatedly failed its own liquidity stress tests, had not completed planned expansions of repo capacity, had not conducted test transactions and had limited collateral pre-positioned at the discount window.[4]

SVB's fragility explains why it was vulnerable; the events of March 8 explain why the run might have been triggered. A potential credit-rating downgrade precipitated management's decision to sell substantially all of the bank's AFS portfolio and seek new capital. The public disclosure of the resulting loss and need for capital triggered depositor reassessment. Silvergate Bank's voluntary liquidation announcement on the same day worsened market sentiment and acted as a catalyst, while private VC networks and digital banking may have accelerated the subsequent run.

SVB was unusually exposed to a rising rate environment because its rapid growth in 2020 and 2021 was tied to exceptional inflows from the venture-capital and technology ecosystem, which is itself sensitive to the interest rate environment. A substantial portion of those inflows was invested in long-duration securities, and longer duration assets are more sensitive to interest rates than shorter duration assets. As interest rates rose, the bank faced pressure on both sides of the balance sheet. The market value of its securities declined, while its clients began drawing down deposits because venture funding slowed. Managing that stress required timely action by management and effective escalation by supervisors.

This report presents a factual account of SVB's collapse and details a sequence of events during the week of March 6-10, 2023 that may have accelerated the run.

No single indicator, viewed in isolation, reliably singled out SVB as the large bank most likely to fail. Individual metrics were a source of concern, but fragility arose from the interaction of three conditions. First, SVB relied heavily on volatile funding from concentrated and overwhelmingly uninsured depositors, while deposits were declining faster than management had expected.[5] Second, its effective liquidity position was weaker than its reported asset base suggested because selling its securities portfolio would crystallize substantial unrealized losses. Third, the bank had not taken sufficient action to strengthen contingent-liquidity capacity or reduce its interest rate exposure through hedging and balance-sheet rebalancing. Thus, the weakness was due to a combination of factors. These conditions left SVB unusually vulnerable to a scenario in which accelerating withdrawals forced asset sales, realized losses, and created an urgent need for additional capital. SVB's uninsured-deposit share and unrealized securities losses were extreme among large banks, and those vulnerabilities were amplified by depositor concentration, operational mobility, limited hedging, and weak liquidity readiness. Therefore, SVB should be evaluated across multiple dimensions of bank vulnerability, including metrics used by policymakers and academics to assess bank-failure risk.

The report also argues why **analytical early-warning tools can be used as complements to, not substitutes for, supervisory judgment**. Some vulnerabilities – such as the sectoral concentration, alleged network interconnectedness of SVB's depositor base, and the operational speed with which those depositors could leave – are not fully captured in standard public regulatory ratios. Based on the model in Correia, Luck, and Verner (2026), SVB ranked 18th

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4 The Barr Report; and Federal Reserve, Discount Window Lending: Quarterly Transaction Data, 2022:Q4 and 2023:Q1, https://www.federalreserve.gov/regreform/discount-window.htm.

5 SVB Financial Group (2023c), page 16, states that management had expected client cash burn to moderate but that it had not moderated during the quarter, pressuring fund flows and deposits.

among 26 Large Banking Organizations (LBOs)[6] by the model-implied failure probability – a quantitative proxy of fragility – at the end of 2022; see Section A.4. When supplemented with additional factors emphasized in the Barr Report to improve predictive power, the model ranked SVB as 21st in the same sample. That result shows that conventional failure models based primarily on Call Report balance-sheet and income-statement data may not have singled out SVB as the most vulnerable large bank. A broader assessment of duration risk, uninsured deposits, contingent-liquidity readiness, and negative securities-adjusted book equity would have identified the bank as fragile.

Management and supervisors recognizing how risks could reinforce one another may therefore have identified SVB as fragile even when a statistical model could not reliably distinguish it from other highly ranked institutions. Supervisory guidance on stress testing recommends that banks examine firm-specific vulnerabilities and combinations of stresses.[7] For SVB, a scenario that combined faster deposit outflows, securities sales at substantial losses, a credit-rating downgrade, and constrained access to contingent funding, may have revealed the bank's core weaknesses much earlier.

[6] Large bank or LBO refers to a bank with $100 billion or more in total assets. The dataset used in Correia et al. (2026) includes SVB and 25 other LBOs.

[7] Board of Governors, FDIC, and OCC (2012).

An Account of SVB Collapse

1. The Architecture of a Fragile Bank

SVB had a structural fragility that was visible in its financial reports for some time – one that could have been identified at least in 2022:Q3, when the unrealized security losses exceeded its total book equity and deposits declined materially.

The bank's business model was narrowly focused. It served the venture capital ecosystem: startup founders, venture capital (VC) funds, and the technology companies they backed. This was a profitable niche during the decade of low interest rates and abundant capital from 2010 to 2021. Deposits increased steadily as VC funding flowed into the sector, as corroborated in the OIG report. Having a focused business model is not a negative by itself, as the risk with regard to the volatility of the funding base could have been managed.

At the start of the pandemic, the Federal Reserve pushed interest rates back to zero, prompting a wave of new cheap funding to VCs and their portfolio companies. By early 2022, SVB held over $190 billion in deposits – more than triple what it held three years earlier. The Barr Report attributed the outsized effect to the bank's concentration in venture capital and start-up clients.[8]

The issue was twofold. First, most of these funds were uninsured deposits. Second, what the bank did with the money compounded the risk.

When deposits grow faster than a bank can deploy them in loans, the surplus must be invested somewhere. SVB invested heavily in long-duration Treasury bonds and agency mortgage-backed securities – instruments that paid marginally higher yields than short-term cash in a zero-rate environment. By the end of 2022, the bank held roughly $117 billion in fixed-income securities. Of this, about $91 billion was in the bank's held-to-maturity (HTM) portfolio, where accounting rules allow unrealized losses to remain off the income statement and out of regulatory capital. The remaining $26 billion was held as available-for-sale (AFS) and reported at fair value. Unrealized losses on the AFS portfolio did not impact regulatory capital because of an opt out available to SVB.[9]

This created a classic duration mismatch. On the liability side, the majority of SVB's deposits could be withdrawn on demand – 93.9 percent of total domestic deposits were uninsured as of December 31, 2022. Uninsured deposits are conventionally modeled as stable under normal conditions. However, their behavior during adverse conditions is unpredictable, as most uninsured deposits are non-maturity deposits with zero contractual duration. The Federal Reserve's Commercial Bank Examination Manual (CBEM) recognized this distinction before SVB's failure. For adverse, institution-specific liquidity scenarios, it states that funding sources should be arranged "by their sensitivity to the chosen scenario" and that deposits "may be segregated into insured and uninsured portions."[10] On the asset side, the held-to-maturity book carried a

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[8] Allen (2025); the Barr Report, page 18; Call Report Schedule RC-O; FDIC Statistics on Depository Institutions.

[9] SVB Financial Group (2023a), pages 63-66; Call Report Schedule RC-B. SVB had elected the AOCI opt-out available under the capital framework applicable to non-advanced-approaches institutions, so AFS unrealized gains and losses were excluded from CET1 regulatory capital. See Board of Governors et al. (2019) and Board of Governors (2023a), page 89.

[10] The Federal Reserve's Commercial Bank Examination Manual § 3200.1, "Liquidity Risk" (effective October 2016), page 25. While not a supervisory expectation, it discusses adverse, institution-specific liquidity scenarios, and a cash-flow-projection format in which "[f]unding sources are arranged by their sensitivity to the chosen scenario" and "deposits may be segregated into insured and uninsured portions." Exhibit 2 breaks non-maturity deposits into insured and uninsured lines across time buckets beginning at Day 1, "reflecting the speed at which deteriorating conditions can affect cash flows."

Supplement 55 (effective October 2023), published **after** the failure, rewrote § 2330.1 "Deposit Accounts" to add explicit uninsured-deposit run-risk language, including that large concentrations of uninsured deposits "can exacerbate the weighted-average duration of 6.2 years, with an approximate weighted average contractual maturity of 13 years.[11] These reported durations may understate the actual risk. It could be especially misleading for assets subject to extension risk such as mortgage-backed securities, which constituted nearly a half of SVB’s assets. If the bank needed to raise cash quickly to meet deposit withdrawals by selling those securities, it would have meant realizing large losses in 2022.[12]

The mismatch between assets and liabilities is what the complementary Earnings-at-Risk (EaR) and Economic Value of Equity (EVE) frameworks are designed to surface. The divergence between SVB's EaR and EVE readings – and how that divergence was managed rather than resolved – is analyzed in Section A.3.

The depositor base was also unusually concentrated. Clients were drawn overwhelmingly from the venture-backed technology sector and shared common exposure to the interest-rate-sensitive venture-capital funding cycle. The characteristics of SVB's depositor base suggest higher potential deposit volatility that might appropriately have factored into management and supervisory risk assessments.[13]

A related fragility lay in the composition of those deposits. Since 2001, more than 87 percent of SVB's deposits were in money market deposit accounts (MMDA) – savings accounts that, despite their non-transaction classification, could function as highly liquid, rate-sensitive, operationally mobile balances.[14] This was a long-standing structural feature of the bank, not a last-minute shift. Thus, SVB was closer to a specialized cash-management institution than to a typical regional commercial bank that may have indicated higher operational mobility of depositor balances.

At year-end 2022, SVB also administered about $168 billion of off-balance-sheet sweep, managed-investment, and repo products maintained at third-party institutions.[15] These balances were not available to SVB to meet withdrawals and did not themselves constitute liabilities of the bank. Their significance was indirect; they reflected a concentrated and sophisticated client base capable of moving cash rapidly between SVB deposits and highly liquid alternatives, while also providing SVB with an uncertain and relatively costly potential source of additional deposits.[16]

These features – a duration-mismatched balance sheet, a depositor base that was overwhelmingly uninsured and concentrated, and operationally mobile – did not make failure inevitable. Combined with weak contingent-liquidity readiness and unrealized securities losses

potential for bank runs" and that modern banking technology lets customers move deposits "with incredible speed." The same supplement left § 3200.1 unchanged; it remains effective October 2016.

[11] SVB Financial Group (2023a), page 66; Call Report Schedule RC-B.

[12] SVB Financial Group (2023a), page 66; Board of Governors (2012), Q3, discussing prepayment and extension risk in instruments with embedded options.

[13] The Barr Report and OIG report document SVB’s concentrated, predominantly uninsured customer base and the greater withdrawal propensity of large, substantially uninsured depositors.

[14] Kupiec (2023) stated that “the MMDAs have the character of liquid investments. They are typically placed by customers to earn a safe but modest return until they are needed to fund some other investment.”
While not evidence of the contractual terms governing SVB accounts in 2022, the 2026 SVB product webpage illustrates current cash-management functionality with same-day transferability, see https://www.svb.com/business-banking/business-money-market-accounts, accessed June 30, 2026.

[15] SVB Financial Group (2023a), page 57.

[16] SVB Financial Group (2023a); Federal Reserve Bank of San Francisco (2022), pages 1-2. The memorandum states that management contemplated encouraging clients to move funds from off-balance-sheet sweep products into on-balance-sheet deposits, while recognizing that the strategy would increase funding costs and that securities liquidation could create material charges against earnings.

that exceeded reported equity on a securities mark-to-market basis, however, they made SVB fragile.

In its 2022 Annual Report on Form 10-K, SVB Financial Group (SVBFG), the holding-company parent of SVB, made the following risk factor disclosure related to SVB pursuant to Item 105 of Regulation S-K:[17]

> "[D]ecreases in the fair value of our AFS fixed income investment portfolio and increases in the pricing frequency and proportion of interest-bearing deposits, while unrealized losses to our HTM fixed income investment portfolio may, among other effects, make an acquisition of the Company more costly or less likely."

This disclosure can be read as management's acknowledgment that the deferred losses were economically real and large enough to impair the company's strategic alternatives.[18] Within two weeks of the filing, the threat of a Moody's downgrade prompted SVB to crystallize $1.8 billion of losses on its AFS portfolio and attempt a capital raise. The market and the bank's depositors repriced SVBFG as though the HTM losses at SVB were realized, and the bank's failure ultimately converted those losses from deferred to actual through the FDIC's resolution. The HTM losses exceeded the bank's total equity.[19] Had SVB been forced to recognize them, would have rendered the bank insolvent on September 30, 2022.[20]

2. The Interest Rate Shock

Beginning in March 2022, the Federal Reserve embarked on the most aggressive rate hiking cycle in four decades, raising the federal funds rate from near zero to over 4.5 percent by early 2023. A significant increase in interest rates was not a surprise, as the Federal Reserve made its intentions clear well in advance through its published projections. Federal Open Market Committee (FOMC) participants revised their expectations sharply upward in June and September of 2022.[21] But, the magnitude of the shock might have been a surprise. Regardless of the plausibility of the projected rate path, the supervisory expectations regarding sound practices for managing interest rate risk (IRR) emphasize stress testing banks' portfolios using meaningfully large shocks:[22]

> "In many cases, static interest rate shocks consisting of parallel shifts in the yield curve of plus and minus 200 basis points may not be sufficient to adequately assess an institution's IRR exposure. As a result, institutions should regularly assess IRR exposures beyond typical industry conventions, including changes in rates of greater magnitude (e.g., up and down 300

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17 SVB Financial Group (2023a), page 22.

18 Financial Accounting Standards Board, ASC 320 and ASC 805. ASC 320 governs the accounting treatment of HTM securities; ASC 805 generally requires acquisition-date recognition of identifiable assets and liabilities at fair value in a business combination.

19 Under normal conditions, realizing losses on AFS or HTM securities generally creates a tax benefit that reduces the impact on equity. However, that benefit may not be realizable in a resolution or liquidation. It is therefore prudent to compare pre-tax unrealized losses with book equity without assuming a tax benefit.

20 Call Report Schedules RC and RC-B. As of September 30, 2022, SVB had approximately $15.8 billion in equity and more than $15.9 billion in unrealized HTM losses and would have been insolvent had those losses been recognized.

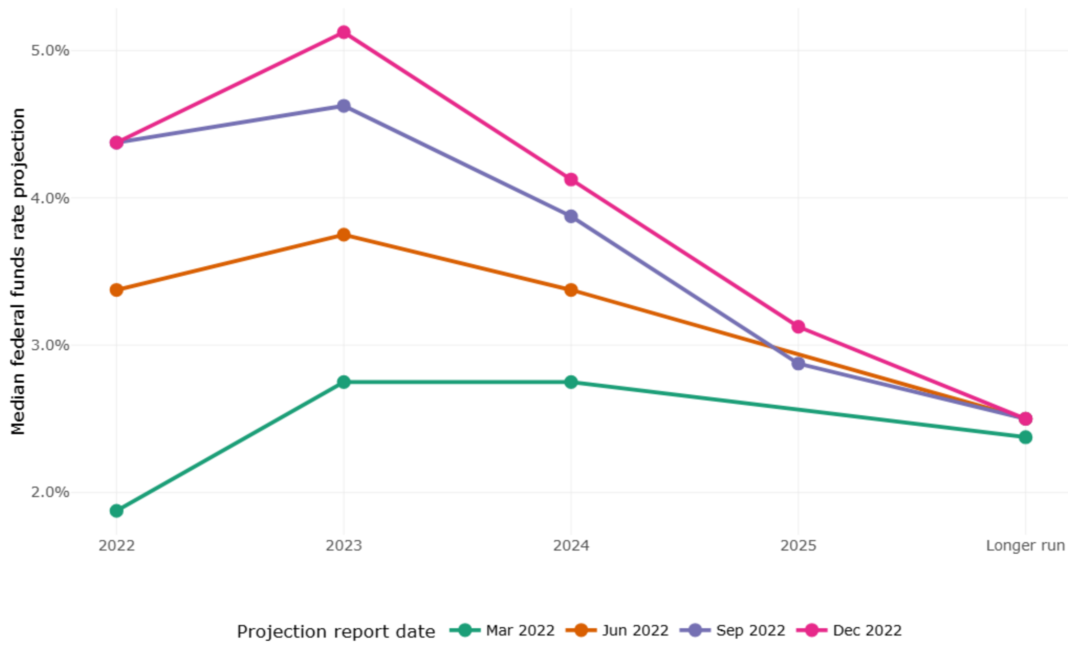
21 Board of Governors, Summary of Economic Projections, March, June, September, and December 2022; Board of Governors, H.15.

22 Board of Governors (2010), page 5. The underlying interagency advisory is dated January 6, 2010, and was transmitted by the Federal Reserve as SR 10-1 on January 11, 2010.

and 400 basis points) across different tenors to reflect changing slopes and twists of the yield curve."

Figure 1. FOMC federal funds rate projections reported during 2022

Each dot shows the median projection of the federal funds rate across FOMC participants for a given horizon, as reported in the March, June, September, and December 2022 Summaries of Economic Projections. Lines connect data from the same report. Projections were revised sharply upward over the course of 2022: by December, the median projection for 2023 exceeded 5 percent, up from below 3 percent in March.



SVBFG publicly identified the relevant high-rate risks related to SVB in its 2022 Annual Report on Form 10-K released on February 24, 2023. However, management's actions, balance-sheet positioning, and risk-model choices were inconsistent with a sustained-high-rate scenario and its specific consequences for AFS and HTM fair-value losses, deposit outflows, and funding pressure, as we explain in Section A.3.[23]

SVB was unusually exposed to the rising interest rate scenario. The mark-to-market value of SVB's long-duration securities portfolio fell sharply. By the end of 2022, the unrealized losses on the held-to-maturity portfolio – excluded from regulatory capital ratios – roughly equaled stockholders' equity. That is, SVB's economic capital cushion was highly vulnerable to forced asset sales or a loss of funding confidence.[24]

Notably, this deterioration in economic value coexisted with a benign near-term earnings picture. SVB management characterized the institution as asset-sensitive – a description grounded in EaR

23 SVB Financial Group (2023a), page 22, states that "The Federal Reserve raised benchmark interest rates throughout 2022 and may continue to raise interest rates in response to economic conditions. … For instance, increases in interest rates have resulted, and may continue to result in, decreases in the fair value of our AFS fixed income investment portfolio and increases in the pricing frequency and proportion of interest-bearing deposits, while unrealized losses to our HTM fixed income investment portfolio may, among other effects, make an acquisition of the Company more costly or less likely."

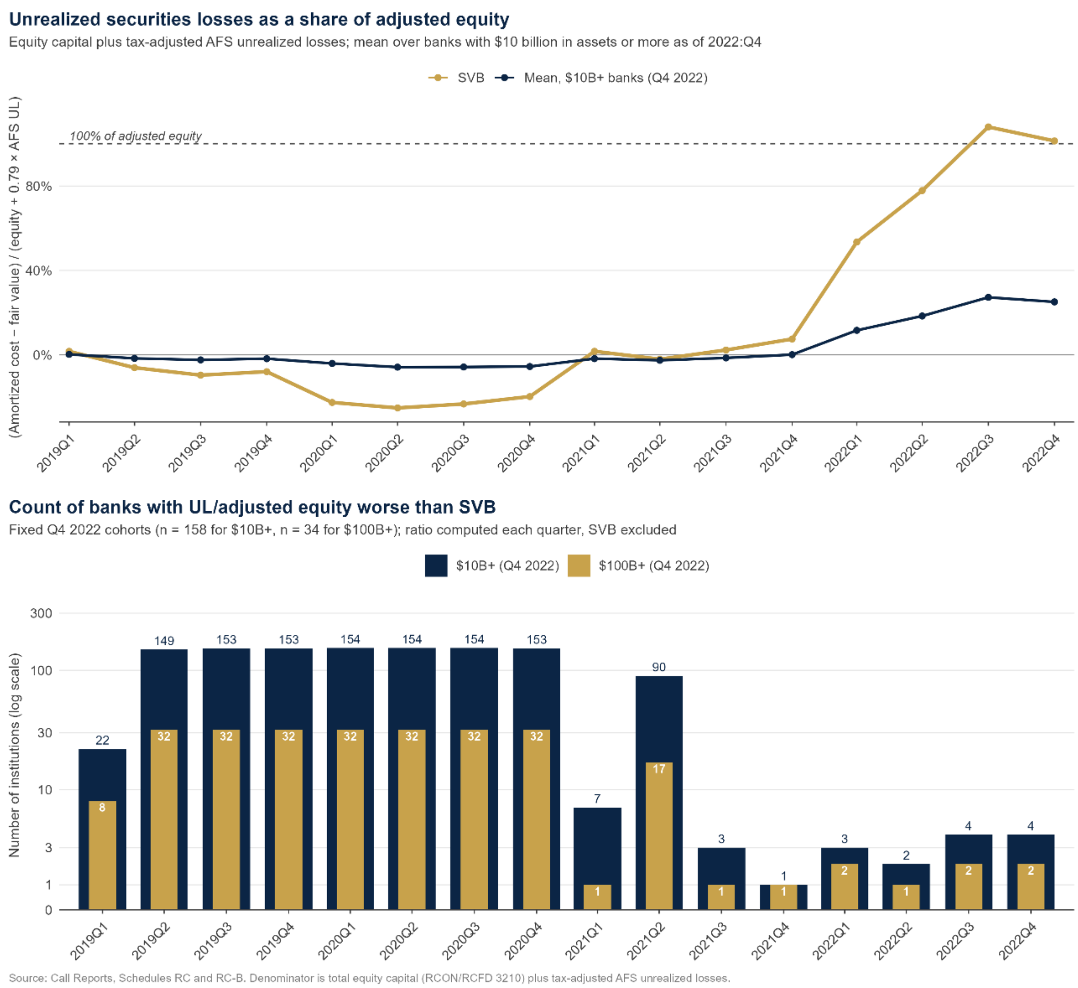
24 SVB Financial Group (2023a), pages 63-66; Call Report Schedules RC-B and RC-R, Part I.

simulation, which measures the effect of rate moves on net interest income over a one-to-two-year horizon. Economic value of equity (EVE) is the market value of assets less the market value of liabilities. An asset-sensitive classification is not inconsistent with severe long-run exposure. EaR and EVE can and did point in different directions at SVB, because EVE captures the present-value effect of long-dated fixed-rate holdings that an earnings simulation truncates at its horizon. The mechanics of this divergence, and why it suggests board- and supervisor-level scrutiny rather than reassurance, are set out in Section A.3.[25]

This exposure was extreme even relative to other large banks. Among the 34 banks with $100 billion in total assets, SVB ranked third by the ratio of unrealized losses to equity.

Figure 2. Unrealized losses at SVB

The figure shows that SVB's unrealized securities losses rose sharply during 2022 and exceeded pre-mark reported equity by 2022:Q3 (top panel), and it placed SVB in the extreme tail of large US banks by unrealized losses relative to pre-mark equity (bottom panel).[26]



25 See Section A.3 on the EaR/EVE divergence underlying SVB's "asset-sensitive" self-characterization and the discussion of SVB's IRR management decisions.

26 To compare unrealized losses consistently across banks, this analysis uses pre-mark equity, defined as reported book equity plus the estimated after-tax unrealized loss on AFS securities. This adjustment places AFS and HTM securities on a

The mark-to-market loss was visible in disclosures months before the collapse. The deterioration in SVB's portfolio was tightly synchronized with the rate rise. SVB's unrealized losses already equaled 80.4 percent of its CET1 regulatory capital in 2022:Q2 and exceeded it in 2022:Q3.[27] The fair value of the held-to-maturity portfolio was disclosed in SVB's quarterly Call Report and its annual financial statements, but the balance sheet itself carried those securities at amortized cost.

Nearly six months before the collapse, on September 30, 2022, the HTM unrealized loss already marginally exceeded SVB's CET1 regulatory capital.[28] **The Federal Reserve – simultaneously the nation's central bank, and SVB's primary federal supervisor – had the data needed to identify this risk**. Quarterly stress testing against foreseeable rate scenarios could have revealed the problem before 2022:Q3.

Meanwhile, the venture capital cycle was turning. VC funding, which had reached historically elevated levels during the first pandemic years, fell sharply in 2022, with US venture-backed funding activity declining roughly 62 percent from its 2021:Q4 peak. Ma and Zimmermann (2023) establish the rate-channel mechanism behind the growth – the inverse relationship that makes the low-rate decade a VC tailwind. During 1969–2007, a one percent increase in interest rates was associated with venture capital investment decreasing by 25 percent in the one to three years following the rate hike. Startup companies, whose operating accounts formed the core of SVB's deposit base, began drawing down balances to fund operations they could no longer finance through new equity raises. SVB's deposits had already been declining for several quarters before the crisis became public.[29]

The bank had a severely weakened securities-adjusted book-equity position, and it was highly vulnerable to further declines in its deposit base.

3. The March 8 Disclosure and the Run

Rumors about troubles at SVB started months before its collapse. Venture capital funds had begun advising portfolio companies to "exercise caution around deposits with SVB" as early as November 2022. In January 2023, a discussion of SVB's financial condition was moving through WhatsApp groups.[30]

The run began when, on March 8, 2023, after the market close, SVBFG announced that it had sold an AFS bond portfolio with a book value of approximately $23.97 billion for net proceeds of approximately $21.45 billion. The sale resulted in an after-tax loss of approximately $1.8 billion.[31]

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classification-neutral basis because AFS unrealized losses are already reflected in reported equity whereas HTM losses are not. CET1 is not used as the common denominator because AOCI treatment differs across banks: AFS unrealized gains and losses are reflected in CET1 for some banks but excluded for banks, such as SVB, that elected the AOCI opt-out. This methodology is consistent with the mark-to-market approach of Jiang et al. (2024).

27 Call Report Schedule RC-B.

28 SVB Financial Group's Form 10-Q for the quarter ended September 30, 2022; SVB Financial Group (2023a); Call Report Schedule RC-B; FASB ASC 320.

29 Board of Governors (2023a), figure 5 and accompanying discussion; Ma and Zimmermann (2023) estimate that a 100-basis-point monetary-policy tightening shock reduces VC investment by approximately 25 percent over the following one to three years.

30 See Rai et al./Bloomberg (March 29, 2023).

31 SVB Financial Group (2023e); SVB Financial Group (2023c). The AFS portfolio had an amortized cost of approximately $23.97 billion and generated approximately $21.45 billion in proceeds, implying an approximately $2.52 billion pre-tax and $1.8 billion after-tax loss.

That announcement also revealed that the bank planned to increase term borrowing from roughly $15 billion to $30 billion for liquidity and to raise $2.25 billion in equity capital.[32]

This was a high-risk response undertaken under ratings and funding pressure. In early March, Moody's privately informed SVBFG that it was preparing to downgrade the bank's credit rating. SVBFG's management subsequently met with Moody's and other rating agencies and engaged Goldman Sachs (GS) to help develop a response, as reported by Reuters, "Silicon Valley Bank's demise began with downgrade threat," on March 11, 2023. GS's role as buyer of the bond portfolio was disclosed by SVBFG in an SEC filing on March 14, 2023 (SVB Financial Group, March 14, 2023).[33]

The capital raise failed for a combination of reasons.

- Announcing a realized loss alongside an uncommitted capital raise was likely the principal reason – and the raise was uncommitted at announcement because SVB had not completed the preparatory work needed for investors to sign confidentiality agreements, with investors requiring at least 24 hours to review updated financial projections (Reuters, March 11, 2023).
- Moreover, on March 8, Silvergate Capital Corporation announced an intention to voluntarily liquidate Silvergate Bank, potentially depressing market sentiment according to the Barr Report: "Silvergate Capital Corporation announced an intention to wind down operations and voluntarily liquidate Silvergate Bank, which further affected depositor sentiment."[34]

  According to Kelly and Rose (2025), the near-simultaneous announcements by SVBFG and Silvergate jointly presented new evidence of stress at banks serving concentrated technology and digital-asset clients and may have contributed to the 7.7 percent decline in the KBW Bank Index on March 9.

  Additionally, SVB could have been affected by the negative sentiment in the digital assets market that factored in the failure of Silvergate. Relatedly, SVBFG disclosed that "Our exposure to crypto is de minimis" in its 2022 Annual Report on Form 10-K.
- The combination of SVBFG's loss announcement and capital raise announcement and Silvergate's liquidation announcement triggered a 60 percent single-day decline in SVBFG's share price on March 9 and, more critically, depositor withdrawals of approximately $41 billion the same day (California DFPI, March 10, 2023). The pace of withdrawals was reportedly amplified by venture capital firms advising their portfolio companies to pull deposits (Bloomberg, March 29, 2023).[35] These events prompted General Atlantic and other investors to withdraw. Goldman Sachs shelved the offering on the evening of March 9 (Reuters, March 11, 2023).

The announcement was intended to reassure investors that management was taking action. It had the opposite effect. For sophisticated market participants – corporate treasurers, VC partners, and bank equity and debt investors – the events of March 8 may have indicated that the dangers of large paper losses were going to be realized.

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32 SVB Financial Group (2023b–d).

33 The Goldman Sachs Group (2023).

34 The Barr Report, page 24 and note 45, stating that Silvergate's liquidation announcement further affected depositor sentiment.

35 The FDIC Study (2026), page. 6; the Barr Report; the OIG Report.

The equity market priced the disclosure first and most visibly. A stock price is public, continuous, and legible to non-specialists in a way that a reported HTM fair value is not. The news of SVBFG's stock price collapsing quickly spread into the major news media. [36] The evidence that the signal reached SVB's depositor base is in what followed: a wave of withdrawal advice that propagated through the venture capital community, with at least $41 billion in withdrawals leaving the bank that same day.[37]

4. The "Coordinated" Exit[38]

The exit unfolded in two distinct phases, and the distinction matters for identifying the cause of the run. The first movement came on Wednesday evening, March 8 – within hours of the after-close announcement of the capital raise and before any venture firm had reportedly issued advice regarding SVB. A handful of attentive founders, reading the capital-raise news themselves, moved money on their own initiative. One startup founder and client of SVB later recounted seeing discussions about SVB in a Y Combinator founder WhatsApp group that Wednesday night, prompted by the share-sale announcement, and – unprompted by any investor – transferring roughly half his startup's funds out of SVB that evening.[39] At this stage the trigger was the disclosure itself, not a VC signal. Some VCs transferred their own funds, but there were no reports of VCs contacting their portfolio companies until the morning of March 9.

The second phase, on Thursday, March 9, is what turned the scattered caution into a run. According to Bloomberg's "SVB's Demise Swirled on Private VC, Founder Networks Before Hitting Twitter" (March 29, 2023), throughout Thursday morning (Pacific time), a wave of VC firms began **privately, not through public social media channels,** contacting their portfolio companies, and urging them to move money out of SVB. TechCrunch was among the first public accounts at 12:40 PM Pacific – reporting that some of the biggest names in venture capital were advising withdrawals and naming Founders Fund, Valor Equity, Inspired Capital, and Hustle Fund among those that had sent guidance to portfolio companies. By noon, approximately $33 billion had reportedly been wired out, with another approximately $8 billion leaving between noon and 1 PM Pacific. A follow-up TechCrunch article at 2:47 PM Pacific confirmed that SVB's online banking systems were already straining under the load, with customers reporting the portal was down, wire transfers failing, and bank branches filling with founders trying to withdraw cash in person.[40]

The advice to withdraw did not originate with a single firm, and the reporting followed those withdrawals rather than triggering them. Bloomberg wrote a dedicated story identifying Founders Fund by name that was published at 2:11 PM Pacific, after venture investors had begun urging portfolio companies to pull cash earlier that day and after deposit outflows were already well underway.[41]

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36 Roof and Tan/Bloomberg (2023); Chapman/Bloomberg (2023). These contemporaneous reports support the proposition that SVB's difficulties and withdrawal advice became publicly visible on March 9.

37 The FDIC Study; California Department of Financial Protection and Innovation (2023). The FDIC study supports approximately $54 billion in submitted requests; the California order documents approximately $42 billion in requests and a negative end-of-day cash position.

38 "Coordinated" is used descriptively to refer to correlated withdrawals prompted by common signals.

39 Mascarenhas et al./TechCrunch (2023), reporting that one founder transferred approximately half of his company's funds on Wednesday evening after discussions concerning SVB's capital announcement and without direction from an investor.

40 Mascarenhas and Wilhelm/TechCrunch (2023); Mascarenhas/TechCrunch (2023).

41 Roof and Tan/Bloomberg (2023).

What preceded the press coverage was a wave of private communication – investor emails and memos to portfolio companies, messages in founder group chats such as Y Combinator's WhatsApp groups, and direct phone calls and texts – propagating through the dense network of relationships that linked SVB's depositor base. TechCrunch reported that by midday Thursday one founder had already heard from three different major VC funds advising withdrawal. Some funds sent written memos to the companies they funded; at least one stated that it acted precisely because it had learned other VCs were encouraging the same move – a self-reinforcing dynamic visible in the media reporting itself.[42]

The result was a cascade. Each firm that advised withdrawal lowered the reputational cost for the next to do the same, and each withdrawal raised the urgency for remaining depositors. This is precisely the dynamic the bank's funding structure had made possible: a client base concentrated in one sector and one region, tied together by common investors and shared communication channels, was capable of coordinating an exit unusually quickly.

The run was not stopped by the bank's closure; it was only interrupted by it. According to the FDIC study, customers requested withdrawals totaling approximately $54 billion on March 9 – nearly a third of the bank's deposits – and the dollar volume of wire requests was heavily concentrated in a three-hour afternoon window. The study also found that almost three quarters of depositors with canceled wires resubmitted new requests the following week – after the FDIC had already taken the bank into receivership.[43] The California Department of Financial Protection and Innovation closed SVB early on Friday, March 10, before the queued wires could be processed, and those requests were canceled.

5. The Impact of the Deposit Guarantee

On Sunday, March 12, the Treasury, Federal Reserve, and FDIC jointly invoked the systemic risk exception, guaranteeing all deposits at SVB and Signature Bank in full, including balances above the standard $250,000 insurance limit. The same day, the Federal Reserve announced the Bank Term Funding Program to provide liquidity against securities at par value. The guarantee was designed to stop the panic – to tell depositors their money was safe and there was no reason to run.[44]

The FDIC's granular data of SVB depositors' withdrawals shows the guarantee did not immediately halt withdrawals. At SVB's bridge bank, depositors continued withdrawing at elevated rates in the days following the announcement.[45] Resubmitted wires may reflect decisions already made and precautionary diversification rather than continued panic about loss. Wire outflow requests at Signature Bank, which was closed by the New York State Department of Financial Services on March 12, 2023, increased on Monday, March 13, after the guarantee was in place.

Based on the FDIC study, **the full deposit guarantee did not immediately stop withdrawals once confidence had already collapsed**. The study found that the canceled-wire depositors sent $13.4 billion on March 13–14 versus $10.6 billion in their March 9 requests, i.e., over 25 percent larger than the previous day. Fully insured retail deposits proved stable and even increased their

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42 Mascarenhas and Wilhelm/TechCrunch (2023); Mascarenhas et al./TechCrunch (2023).

43 The FDIC Study; California Department of Financial Protection and Innovation (2023); The OIG Report. The sources support the aggregate withdrawal amounts and resubmission of canceled wires but do not establish the complete "who ran when" sequence.

44 US Department of the Treasury, Board of Governors, and FDIC (2023); Board of Governors (2023b).

45 The FDIC Study reports continued elevated withdrawals at the bridge banks after the systemic-risk determination. These flows include previously initiated transfers, may include precautionary diversification, and should not, by themselves, be interpreted as evidence that the guarantee failed to reduce broader systemic risk.

balance in aggregate. But insured dollars embedded in larger, partially uninsured relationships left alongside the uninsured balances.

6. The Speed of Modern Bank Runs

For historical context, the 2023 runs were unprecedented or among the fastest in the Financial Stability Board (FSB) member-reported historical sample.

Continental Illinois in 1984 – long considered the archetype of a modern bank run – lost approximately 30 percent of its deposits over roughly ten days. SVB lost nearly 25 percent of its deposits in a single day – March 9 – and the bank's management estimated a further $100 billion in withdrawal requests pending for the following morning. The FSB, in its analysis of more than 70 historical bank runs spanning multiple decades and jurisdictions, found the 2023 US runs to be two to three times faster than any historical episode in its survey, with a median historical run losing far less over its entire duration than SVB lost in a day.[46]

This acceleration was not accidental. The same digital infrastructure that made SVB's depositors operationally efficient – online banking, Fedwire transfers, real-time treasury management – eliminated the friction that historically slowed bank runs. In earlier episodes, communication, authorization, and funds-transfer processes generally involved greater operational friction. A depositor in 2023 can submit a nine-figure wire request from a laptop in seconds.

Digital communication likely compressed the timeline of the information diffusion that coordinates runs. What once required days of newspaper coverage and slow telephone chains took hours: private emails and messages from VC general partners reached portfolio-company treasurers before any journalist had published a word. **By the time TechCrunch and Bloomberg – the first press coverage of then-potential deposit flight – filed their stories, the afternoon wire surge was already history**.

7. The Structural Failures Behind the Collapse

SVB's vulnerability to rising interest rates and funding shocks was knowable, as the bank came under significant stress from a relatively modest shock to deposits in 2022:Q4. Given the level of concentrated uninsured deposits and accumulated unrealized losses, the run could be related to identifiable failures at multiple levels.

Management. SVB's leadership made a decision that stretched basic banking principles: funding long-duration, illiquid assets with short-duration, uninsured, concentrated liabilities. The yield advantage of the HTM portfolio – which yielded a thin margin over cash – was not worth the liquidity and duration risk assumed.

Worse, when the bank's own interest rate risk models flagged the exposure, management changed the models rather than the portfolio. After repeatedly breaching its internal interest rate risk limits – SVB addressed the breach in April 2022 by altering a deposit-modeling assumption. By more than doubling the assumed life of its most volatile funding, from 5.5 to 12 years, the bank mechanically narrowed the modeled risk without reducing the actual exposure, as discussed in Section A.3.

Over the same period the bank allowed its interest rate hedges to lapse.[47]

Supervision. The Federal Reserve was both the primary federal supervisor and the institution with the clearest view into the changing rate environment. A quarterly mark-to-market exercise

46 FDIC (1997); The FDIC Study; The OIG Report (2023); Financial Stability Board (2024).

47 SVB Financial Group (2022), Exhibit 99.1. The filing shows that the relevant pay-fixed, receive-floating swap notional declined from approximately $11.3 billion at 2021:Q3 to zero by 2022:Q3.

applied to SVB's securities portfolio against the Fed's own published rate projections would have revealed negative securities-adjusted book equity by the end of 2022.

The Fed's post-mortem concluded that SVB managed interest rate risk with a focus on short-run profits, removed hedges rather than managing the longer-run risk of rising rates, and changed its risk-management assumptions instead of addressing the underlying exposure – yet supervisors identified these deficiencies without escalating them with sufficient force or speed:

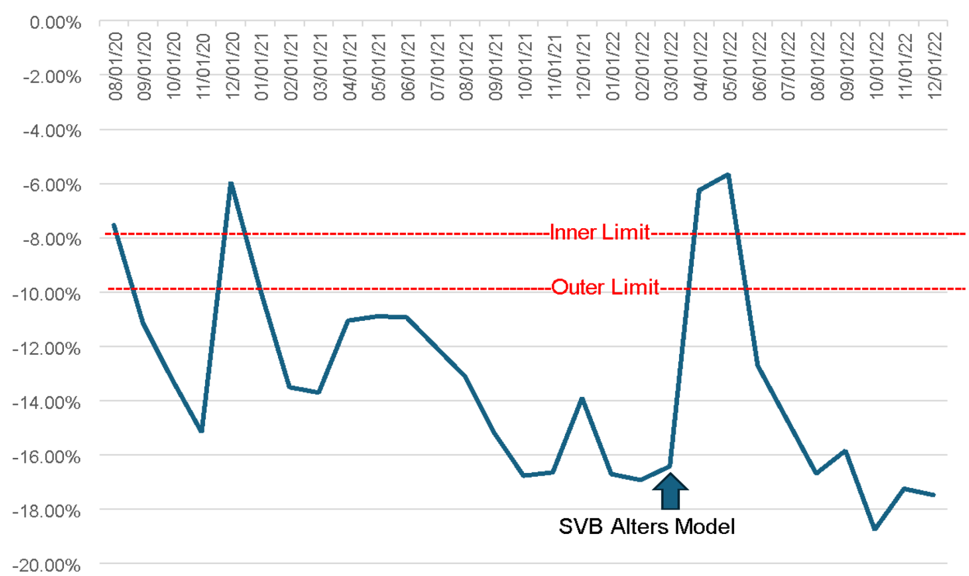
“Regulatory standards for SVB were too low, the supervision of SVB did not work with sufficient force and urgency, and contagion from the firm’s failure posed systemic consequences not contemplated by the Federal Reserve’s tailoring framework.”[48]

The 2022 deposit-model change is the clearest illustration: FDIC supervisory guidance holds that material divergence between EaR and EVE models warrants explanation rather than resolution by model re-specification. SVB’s decision to resolve a limit breach by re-specifying the EVE model and ignoring the gap between its favorable EaR profile and its deteriorating EVE profile should have prompted supervisors to probe further.

Furthermore, even this controversial solution was not sufficient to hide the bank’s elevated and growing sensitivity to interest rate increases. With continued interest rate limit breaches, the modeling re-specification gave the supervisors another opening to insist on SVB operating within its own risk limits. See Section A.3 for a discussion of the supervisory guidance on IRR and EaR and EVE metrics and a more detailed discussion of IR management at SVB, respectively.

Figure 3. Evolution of EVE at SVB

Source: The FDIC complaint (2025), page 21. Economic Value of Equity (EVE), measuring the sensitivity of a bank’s entire portfolio to interest rate changes, is explained in Section A.3. This chart shows the sensitivity of EVE to a 100 basis point (1 percent) increase in interest rates at all maturities. Values above the “inner limit” (smaller declines in EVE) signal compliance with the internal interest rate risk management policy. Falling below the “outer limit” typically triggers a management action. Modifying the assumptions behind the EVE calculations brought the bank into compliance only briefly – both the inner and outer limits were violated in June 2022 even in scenario with this modest interest rate increase.



SVB’s ability to withstand a liquidity shock was limited by the fact that the bank had not operationalized its access to the Federal Reserve's discount window. When the withdrawals

48 The Barr Report, page 1.

began, its only pre-failure draw was a single $5.25 billion loan on March 9, even though the collateral its bridge bank later pledged ran many times that amount.[49] A bank with pledgeable collateral was unable to use it in real time because the legal and operational arrangements were not in place – a readiness failure supervisors should have caught well in advance.[50]

Regulation. The accounting and capital framework allowed SVB to carry $91 billion in held-to-maturity securities at amortized cost despite visible mark-to-market losses. As a Category IV firm under the 2019 tailoring rules, SVB and SVBFG were permitted to opt out of including even AFS unrealized losses in regulatory capital – so neither the AFS nor the HTM marks fed into its reported capital ratios. The framework reduced the regulatory and market salience of disclosed losses.

The Federal Reserve later estimated that recognizing AFS unrealized losses in CET1 capital would have lowered SVB's reported ratio from 12.1 to 10.4 percent – material, but still above the regulatory minimum – which underscores that no single capital metric, taken alone, would have captured the danger if the HTM unrealized losses are not counted.[51] Roughly 85 percent of SVB's unrealized losses were in the HTM book, and the post-2023 reform proposals would continue to carry HTM securities at amortized cost.[52]

Unrealized losses should be considered together with deposit runnability, liquidity capacity, and interest rate risk management, rather than through any one ratio. Sustained domestic deposit outflows – 4.3 percent, 5.5 percent, and 2.3 percent flight in 2022:Q2, Q3, Q4, respectively – pressured SVB to sell substantially all of its AFS securities portfolio and seek new equity capital to absorb the resulting realized loss and strengthen its balance sheet. The March 8 announcement signaled that previously unrealized securities losses could become realized and revealed the bank's need to raise capital. Both contributed to the withdrawal pressure.[53] It triggered an immediate loss of confidence, in an environment already shaken by the voluntary dissolution of Silvergate Bank.[54]

Large unrealized losses, reliance on concentrated and uninsured depositors, the discrepancy between the EaR and EVE simulations, and persistent violation of EVE risk limits – which supervisory guidance explicitly calls out as warranting scrutiny – would together have served as a strong signal that the bank was fragile.

8. Coverage by Traditional Media

The Barr Report characterizes the SVB collapse as a social media-fueled bank run, but the investigations by TechCrunch, Reuters, and Bloomberg show the run was organized through

49 Labonte (2024); Board of Governors, Discount Window Lending transaction-level disclosures for 2023:Q1. Primary credit is generally available to financially sound institutions, subject to collateral, documentation, and operational requirements.

50 The Barr Report, page 6, documents limited pre-positioned collateral, lack of test transactions, and operational difficulty moving collateral during the run.

51 The Barr Report, page 89.

52 Board of Governors, FDIC, and OCC (2026).

53 SVB Financial Group (2023c–d); The Barr Report; Wang/Reuters (2023). These sources support the AFS sale, capital raise, and the market and depositor reaction to the March 8 announcement.

54 The Barr Report, page 24 and note 45; The OIG Report; Wang/Reuters (2023).

private, high-trust channels (WhatsApp, email chains, texts, phone calls). Social media coverage was the aftermath, not the mechanism.

Additionally, the articles indicate that investors warned companies privately, possibly to protect their portfolios while avoiding triggering a wider run. Yet, the aggregate effect of those private warnings was the deposit-base depletion that caused the bank to fail.

March 8, 2023

- Silvergate Capital Corporation announces its intention to voluntarily liquidate Silvergate Bank, priming market sentiment for banking-sector fears (the Barr Report).
- Moody's downgrades SVBFG and SVB's credit rating by one notch – the softened outcome of the multi-notch downgrade it had privately warned of in early March (Reuters, March 11, 2023, Axios, March 14, 2023).[55]
- After market close, SVBFG announces its strategic actions: the sale of substantially all of SVB’s AFS securities portfolio at a significant after-tax loss, a plan to increase term borrowings from $15 billion to $30 billion, and a $2.25 billion capital raise – announced before the raise was committed, with pricing expected after Thursday's market close (SVB Financial Group, March 8, 2023; Reuters March 11, 2023).
- That evening, warnings begin propagating through private networks: public-company CEOs phone Race Capital's Alfred Chuang, who interprets the calls as depositors already withdrawing; his firm exits SVB immediately (Bloomberg, March 11, 2023).
- Polymath Robotics co-founder/CEO Stefan Seltz-Axmacher observed a discussion in a Y Combinator founder WhatsApp group about SVBFG's $2.25 billion share sale and General Atlantic's $500 million stock purchase. Unprompted by any VC or adviser, Seltz-Axmacher transfers roughly 50 percent of his startup's funds from SVB into an existing account at another bank that evening (TechCrunch, Mar. 10, 2023).

March 9, 2023

- The following day, inundated with communications, including information that three of the largest VC funds had told portfolio companies to exit SVB, Seltz-Axmacher moves a further 25 percent of his remaining funds; founders cite payroll and basic business survival as their top concerns (TechCrunch, March 10, 2023).
- A startup founder moves funds to another bank after observing the banking sector and SVBFG’s stock price decline on March 8 (TechCrunch, March 10, 2023).
- Around 2 a.m., founder Vijay Rayapati posts a warning to a WhatsApp founders' group citing SVB's liquidity issues and ratings downgrade, cautioning it "might cascade" (Bloomberg, March 11, 2023).
- The warning cascades through private channels at scale overnight and into the following morning: a 400-person WhatsApp group generates hundreds of messages, the alert reaches a 1,500-founder channel, and large text threads ignite among US startup CFOs (Bloomberg, March 11, 2023).
- Early in the day, VC firms act deliberately on private rather than on social media channels (Bloomberg, March 11, 2023):
    - Sequoia and Andreessen Horowitz-affiliated founders receive personal phone calls;

[55] Primack/Axios (2023); Wang/Reuters (2023). The reports describe an earlier potential multi-notch downgrade and the eventual one-notch action.

  - a16z directs its approximately 1,000-founder email thread to "call your GP";
  - Y Combinator's president validates the solvency concern;
  - Menlo Ventures instructs every partner to call every portfolio CEO and move 30 percent of capital out.
- SVBFG's share price collapses roughly 60 percent during the trading session, closing at $106.04 – while Goldman Sachs bankers still hope to price the offering at $95 after the close (Reuters, March 11, 2023).
- By midday, concern in founder networks has turned to panic; depositors race to submit wire transfers, many of which fail to execute as the day progresses (Bloomberg, March 11, 2023).
- Depositors withdrew approximately $41 billion – roughly a quarter of the bank's deposits – leaving SVB with a negative cash balance of approximately $958 million at close of business (California DFPI, 2023).
- General Atlantic and other investors withdraw from the capital raise as the run accelerates; Goldman Sachs shelves the offering that evening (Reuters, March 11, 2023).

9. CONCLUSION

SVB had negative securities-adjusted book equity in the third quarter of 2022, funded by an inherently unstable base of concentrated, uninsured depositors. This created a bank that was vulnerable to funding shocks whether they were due to negative business shocks to its concentrated customer base, to depositor withdrawals, or to funding shocks from a downgrade of the bank's credit rating. This “abnormal risk of loss” provided a strong supervisory basis for characterizing the bank as fragile. When the bank's financial vulnerability was crystallized by the asset sale and capital raise announcement on March 8, 2023 – belatedly and incompletely – depositors responded by leaving.

The speed of the exit, the role of private networks in it, and the ineffectiveness of the post-failure deposit guarantee to immediately halt withdrawals are features of a modern financial system that supervisors must now account for. But they are secondary: **a bank with a fragile balance sheet was allowed to operate without taking mitigating actions too long, under supervision that had both the information and the mandate to intervene earlier**.

The depositor run was the consequence. The interest rate risk on the securities portfolio, amplified by a concentrated and volatile deposit base, declining VC funding, and duration risk, was the cause. All were visible, and none were addressed in time.

A Appendix

A.1 Uninsured Deposits

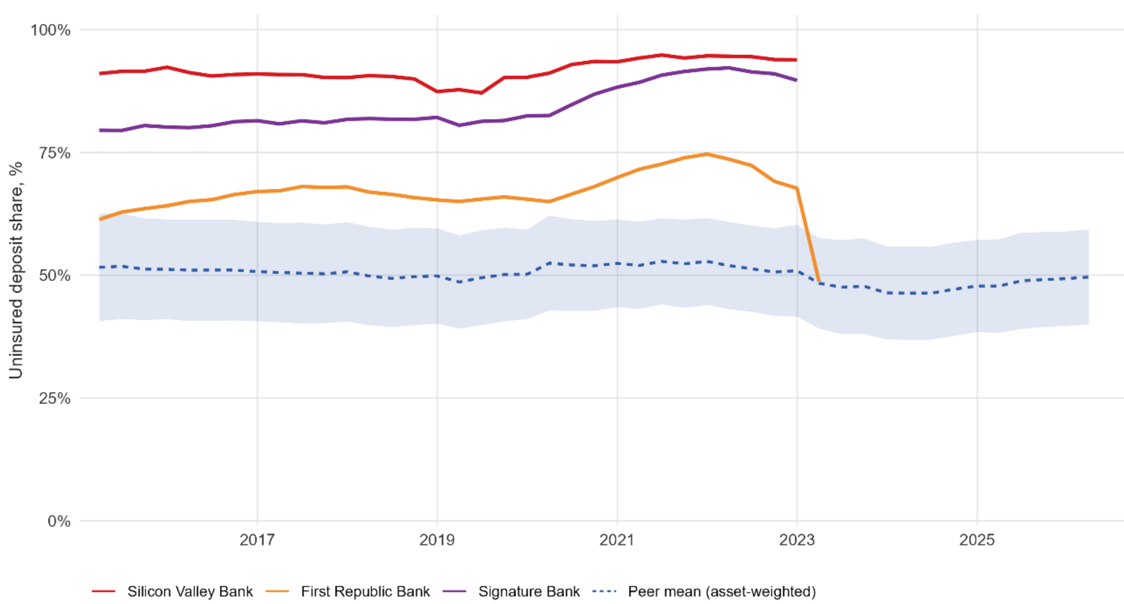
SVB was an outlier in its reliance on uninsured deposits, a balance-sheet feature closely associated with bank runnability. Uninsured deposits are more likely to run because depositors are not fully protected by the FDIC guarantee, often have larger and more sophisticated treasury functions, and can move funds quickly when confidence deteriorates. A high uninsured deposit share is therefore one of the key indicators of how vulnerable a bank may be to a rapid loss of depositor confidence.

As of 2022:Q4, SVB had one of the highest uninsured-deposit shares – 93.9 percent – among banks with at least $10 billion in assets, comparable to levels more commonly associated with custodian or correspondent banks. The broader time-series evidence since 2008 leads to the same conclusion: SVB's reliance on uninsured deposits was persistently high relative to most large banks, as shown in Figure 4. It shows the time series of uninsured deposit shares for selected large banks; the shaded gray area denotes the 95% confidence interval.

The high share itself, however, was not necessarily surprising for SVB's business model. SVB served venture-backed companies, technology firms, start-ups, private funds, and related ecosystem participants. These customers often held large operating balances well above the FDIC insurance limit, particularly after the surge in venture funding during 2020–2021. What made it risky was the combination of depositor concentration, common exposure to the venture-capital funding cycle, and rapid information transmission within a closely connected client network.

Figure 4. Share of uninsured deposits

The sample includes all banks with at least $10 billion in total assets as of 2022:Q4. Large share of uninsured deposits was a defining structural feature of SVB.



Source: Call Reports, Schedule RC-O Memorandum item 2 (RCON5597, estimated uninsured deposits) over Schedule RC item 13.a (RCON2200, total deposits in domestic offices). Sample is the 158 banks with total assets >= $10B at 2022:Q4, held fixed across quarters. Peer mean is the asset-weighted cross-sectional mean each quarter using contemporaneous total assets as weights (targets included). Shaded band is the 95% CI (mean +/- 1.96 x SE).

A.2 Unrealized Losses

The rapid increase in interest rates in 2022 created large unrealized losses in many banks' securities portfolios that are measured as the excess of amortized cost over fair value for held-to-maturity ("HTM") and available-for-sale ("AFS") securities, scaled by pre-mark equity to facilitate consistent comparisons across banks.[56] This measure is not the same as regulatory insolvency because AFS and HTM securities are treated differently under accounting and regulatory capital rules. It is nevertheless a useful indicator of economic solvency risk. Losses that remain unrealized under normal conditions may have to be recognized if a bank is forced to sell securities to meet liquidity needs.

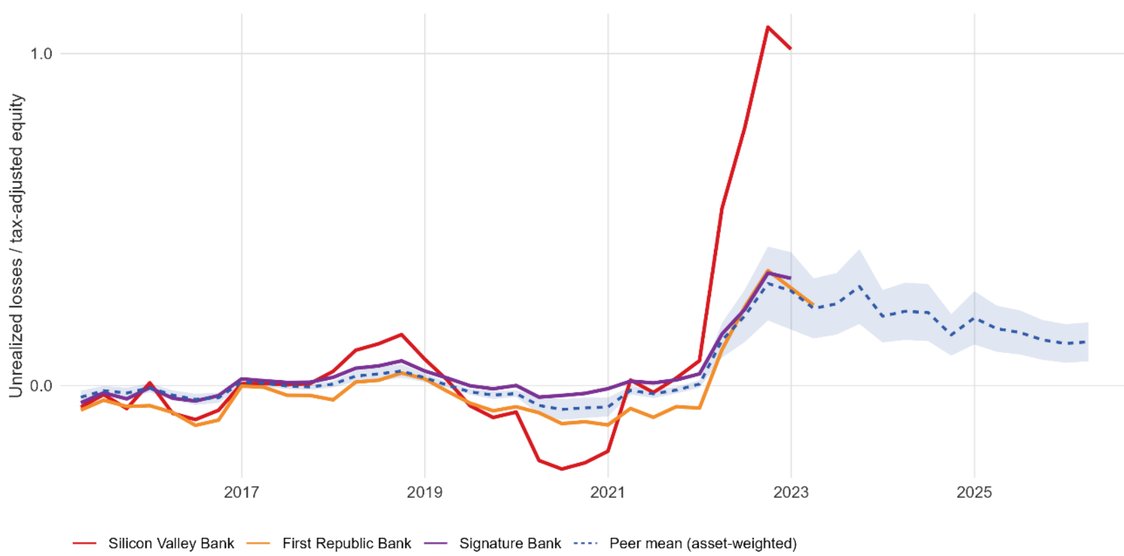
By this measure, SVB was highly exposed. At 2022:Q4, its unrealized HTM and AFS losses equaled approximately 104 percent of capital as measured by CET1 regulatory capital and 101 percent of pre-mark equity, according to the Call Report Data.[57] Its unrealized securities losses exceeded its equity. SVB was not unique, however. Among the 34 banks with $100 billion in total assets, SVB ranked third by the ratio of unrealized losses to equity. The two banks that ranked higher had ratios of unrealized losses to pre-mark equity of 145 percent and 115 percent, respectively.

The deterioration was sudden and synchronized with the rapid increase in interest rates. Most banks experienced a sharp rise in unrealized securities losses beginning in 2022. SVB was among the more sensitive institutions in the sample, and by 2022:Q2, its unrealized losses already equaled 80.4 percent of CET1 regulatory capital and 77.8% of pre-mark equity.

Call Report data therefore would have shown well before SVB's failure that its interest rate exposure had materially weakened its economic capital position and placed it among the weakest large banks on this measure.

Figure 5. Unrealized HTM and AFS securities losses relative to reported book equity

The sample includes all banks with at least $10 billion in total assets as of 2022:Q4. Mirroring an industry-wide trend, SVB began accumulating unrealized losses in 2022. While SVB's ratio of unrealized losses to equity was extreme, it was not the highest in the industry.



Source: Call Reports, Schedules RC-B (MDRM 1754/1771 for HTM amortized cost and fair value; 1772/1773 for AFS amortized cost and fair value) and RC (3210 total bank equity capital). Unrealized losses = (HTM amortized cost - HTM fair value) + (AFS amortized cost - AFS fair value), scaled by tax-adjusted equity. Tax-adjusted equity = total bank equity capital plus AFS unrealized losses adjusted for a 21% tax rate. Equity already reflects AFS unrealized losses through accumulated other comprehensive income; adding them back places the numerator and denominator on a common pre-loss basis. Sample is the 158 banks with total assets >= $10B at 2022:Q4, held fixed across quarters. Peer mean is the asset-weighted cross-sectional mean each quarter using contemporaneous total assets as weights (targets included). Shaded band is the 95% CI (mean +/- 1.96 x SE).

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56 See footnote 26.

57 Call Report Schedule RC, RC-B, and RC-R.

A.3 Interest Rate Sensitivity

Sound interest rate risk (IRR) management requires measuring exposures from two distinct vantage points: the effect on near-term earnings and the effect on long-run balance sheet value. Earnings at Risk (EaR) and Economic Value of Equity (EVE) are the two complementary frameworks, and the supervisory guidance treats both as essential; neither alone is sufficient.[58]

EaR quantifies the potential change in net interest income (NII) over a specified short-term horizon (typically one to two years) under alternative interest rate scenarios relative to a base case. It is produced by earnings simulation models that project cash flows, repricing, and behavioral responses across the institution's assets, liabilities, and off-balance-sheet positions.

EaR = NII(base) - NII(stress scenario)

The securities-adjusted book-equity measure used above is a partial balance-sheet revaluation. EVE is broader and represents the present value of expected asset cash flows minus the present value of expected liability cash flows, inclusive of off-balance-sheet items. An EVE model computes this net economic value under a base-case rate environment and then under stressed scenarios; the change in EVE is the principal risk metric.

EVE = PV(asset cash flows) - PV(liability cash flows) +/- PV(OBS cash flows)

EaR and EVE are not substitutes; they are designed to be used together. EaR reveals how rate movements will affect reported earnings and near-term capital generation. EVE measures the longer-horizon sensitivity of the present value of existing balance-sheet positions to changes in interest rates. A bank can appear earnings-resilient in the short run while carrying a severely negative EVE sensitivity, a divergence that typically signals a structural mismatch obscured within the EaR horizon.

EVE is more suitable for portfolios with long-dated optionality. For example, non-maturity deposits, long-term mortgages, and callable bonds have cash flow tails that earnings simulation truncates. At the same time, EVE is more sensitive to modeling assumptions, as small changes compound over a long horizon. The primary limitations of EVE are 1) the static run-off assumption that ignores future business and 2) aggregate treatment of asset/liability mismatches can mask the timing of when risk materializes.

EaR and EVE may, and often do, produce directionally divergent signals. Common drivers include the timing of asset/liability repricing mismatches, the volume of fixed-rate assets, the treatment of non-maturity deposit duration, and the structure of derivative hedges. An asset-sensitive bank, which is how SVB management characterized the institution,[59] can show a positive EaR profile from quickly repricing assets while simultaneously carrying adverse EVE exposure from long-duration fixed-rate holdings.

Consistent with FDIC's expectation that management explain the sources and level of IRR to the board, material divergence between EaR and EVE models warrants explanation rather than resolution by model selection.

For SVB, the relevant facts were known to both management and supervisors. The bank repeatedly breached its own interest rate risk policies and metrics according to FDIC complaint (2025). Instead of adjusting the portfolio in response to the risk breaches, SVB opted to change its risk metrics. In January 2022, the management recommended to the Board Risk Committee that it address the issue by “managing EVE sensitivity through deposit modeling.” Specifically, it was suggested to alter the deposit model’s “curtailment assumption, [which is] the overall time that

[58] Board of Governors et al. (2010), “Measurement Methodologies” and “Stress Testing”; Board of Governors (2012), Q3. These pre-failure materials state that institutions should assess IRR from both earnings and economic-value perspectives.

[59] Board of Governors (2022), SVB 2022 CAMELS Examination Supervisory Letter, page 1.

deposits remained with the firm."[60] SVB more than doubled (from 5.5 years to 12 years) the stickiness of the most volatile funding source. This change was not justified and it was precisely targeted: longer assumed liability life raises modeled liability duration, increases the present-value offset against long-duration assets, and mechanically narrows EVE sensitivity.

The evidence pointed to the contrary, as SVB had issues with deposit outflows in 2022 H2 discussed in the Barr Report. Given SVB's extraordinary growth and risky composition of deposits, including the large proportion of uninsured deposits discussed in Section A.1, SVB's management should have known that SVB's deposits were inherently susceptible to leaving the bank, especially at a time of heightened interest rate risk due to actual and anticipated increases in interest rates.

Changing modeling assumptions to eliminate a risk limit breach should have been flagged and escalated by the Internal Risk Management and supervisors.

A.4 Likelihood of Failure

Correia, Luck, and Verner (2026), hereafter CLV, study bank failures using a comprehensive historical panel of US commercial banks' balance sheets from 1863 to 2024. They argue that failed banks exhibit deteriorating fundamentals before failure and show that one can predict bank failures with reasonable confidence using relatively straightforward metrics from call reports such as asset losses and reliance on costly noncore funding. It is an accounting-based early-warning model. Its predictors are based on reported balance-sheet, income-statement, and macroeconomic data, rather than market-implied or explicitly forward-looking measures such as Merton's distance to default.

We use the CLV model to assess whether SVB would have appeared vulnerable to failure relative to other banks before March 2023. CLV estimate the model on a long historical panel of US commercial banks from 1863 to 2024. That history includes many failure episodes driven primarily by credit losses and deteriorating asset quality, including the 1930s and the 1980s–1990s. SVB's failure mechanism was different: it was driven less by realized loan losses than by the interaction of unrealized interest rate losses on securities, concentrated uninsured deposits, and liquidity stress. For that reason and to improve data consistency, we estimate the model on the modern period from 2001 through 2022, with the dependent variable equal to failure during the following year, 2002 through 2023, excluding the three 2023 failed banks from the estimation sample. This produces an unbalanced panel of 45,829 bank-years and 73 failure events. SVB, Signature bank, and First Republic bank failures were excluded.

We use the same predictors as CLV: noncore funding, net income, bank age, asset growth, GDP growth, and inflation. In the model replicated on the shorter modern sample, SVB did not stand out as one of the banks most vulnerable to failure. As of 2022:Q4, 79.2 percent of banks in the sample had higher model-implied failure probabilities than SVB. Among large banking organizations, 17 of 25 had higher model-implied failure probabilities than SVB. This result suggests that the CLV accounting-based predictors, estimated on the modern sample, would not have singled out SVB as an especially likely failure candidate before March 2023.

CLV used a linear probability model (LPM), which allows probabilities to be less than zero and larger than one. While the estimated probabilities are not interpretable, the ranking is typically little affected. To ensure that result is not driven by a statistical convenience of using LPM, we used logistic regression, which constrains fitted probabilities strictly between zero and one. Logistic CLV predicted that there were 15 LBOs more likely to fail than SVB in 2022:Q4.

It is possible that there exists a model with a different set of predictors that could identify failing banks more accurately than CLV. To this end, we add potential predictors of bank failure based on the insights from the Barr Report. That review identified six metrics salient to balance sheet health

[60] FDIC complaint (2025) paragraphs 84–85.

and SVB’s tech-focused business model: loans to assets ratio, securities to assets ratio, held-to-maturity securities as a share of total securities, deposits to liabilities ratio, uninsured deposits to deposits ratio, and common equity tier 1 capital to risk-weighted assets (CET1 capital ratio). SVB appeared vulnerable compared to its peers on all six new factors except the CET1 capital ratio. This suggests that the updated model should rank SVB as more likely to fail. For the reason that SVB was also uniquely characterized by unrealized securities losses, which exceeded reported equity shortly before failure, we estimate a third model that adds the unrealized loss metric as a covariate.

Table 1. Likelihood of bank failure model specifications

Rows show alternative models, and columns show risk factors. A blue cell indicates that the model (row) includes the corresponding risk factor (column).

Vulnerability factors used to predict bank failures across specifications

Baseline follows Correia, Luck, and Verner (QJE, 2026). Expanded specifications add Call Report metrics on balance-sheet composition, capital, funding stability, and mark-to-market losses.

	Noncore × net income	Log bank age	Asset growth quintile	3-yr real GDP growth	3-yr CPI inflation	Loans to assets	Securities to assets	HTM share of securities	Deposits to liabilities	Uninsured deposits share	CET1 to RWA	Unrealized losses / equity
CLV baseline	•	•	•	•	•							
CLV + six metrics	•	•	•	•	•	•	•	•	•	•	•	
CLV + six metrics + unrealized losses	•	•	•	•	•	•	•	•	•	•	•	•

Source: Correia, Luck, and Verner (2024) replication data and Call Reports. Filled cells indicate the covariate enters the specification. Unrealized losses are amortized cost less fair value on HTM and AFS securities, scaled by equity capital (MDRM 3210) plus tax-adjusted AFS unrealized losses.

In the linear probability model, adding the six factors generates almost no change in overall performance. We use the Matthews correlation coefficient to measure the model’s classification power, which is well suited for highly imbalanced data like this dataset with only few bank failures. It ranges from -1 (perfectly wrong alignment between predicted and actual outcomes) to 1 (perfect alignment).[61] The Matthews correlation coefficient increased with added factors only marginally. SVB ranking also changed little under the linear probability model. However, adding the ratio of unrealized losses to pre-mark equity moved SVB to the third position. The augmented logistic CLV model fit improved from adding the additional factors more significantly. Still, the augmented logistic model predicted that there remained 17 banks with a higher model-implied failure probability than SVB among the LBOs. The difference in the predicted SVB rankings could be attributed to the linear model being more sensitive to adding factors that single out unusual profiles like SVB than the logistic model.

This analysis does not suggest that SVB was safe. SVB had significant weaknesses in interest rate risk management, liquidity management, and contingent-funding readiness. Rather, the analysis shows that SVB did not stand out as the most vulnerable large bank under a standard accounting-based failure model, even after adding several balance-sheet metrics on which SVB looked weak relative to peers. Adding unrealized losses could single out SVB, but it did not improve the model’s predictive power.

That result is informative. It suggests that conventional failure-prediction models built on raw regulatory-accounting data may understate the risk of a bank whose failure depends on a specific

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[61] Area under the Curve (AUC) can be misleading for this highly imbalanced setting. A model can have a high AUC while still producing weak precision among the small number of bank failures. We therefore also report Matthews Correlation Coefficient (MCC) and SVB’s percentile rank. See Matthews, B. W. (1975).

Area under the Curve (AUC) is not a meaningful metric for this unbalanced dataset in which bank failures constitute only 0.16 percent of all records. In unbalanced datasets, AUC is high because it gives significantly higher weight to not missing bank survival (dominant observations), which is not the objective here.

interaction of vulnerabilities: large unrealized securities losses, concentrated and uninsured deposits, rapid depositor coordination, and limited ability to monetize collateral under stress.

Figure 6. Likelihood of bank failure

This figure shows what number and proportion of banks were more likely to fail than SVB as of 2022:Q4. The panel on the left and right use the linear probability model and logistic model, respectively. Grey bars correspond to the model with the bank vulnerability factors chosen by CLV; blue bars correspond to the model with the expanded set of vulnerability factors. The group of bars labelled “100B+” compares SVB to the other LBOs.

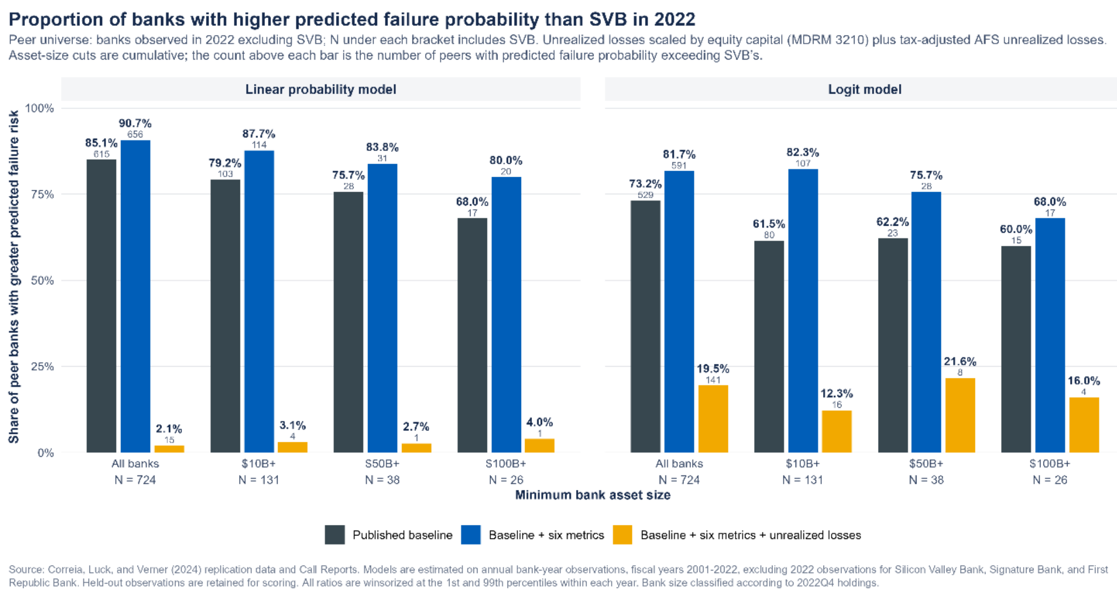
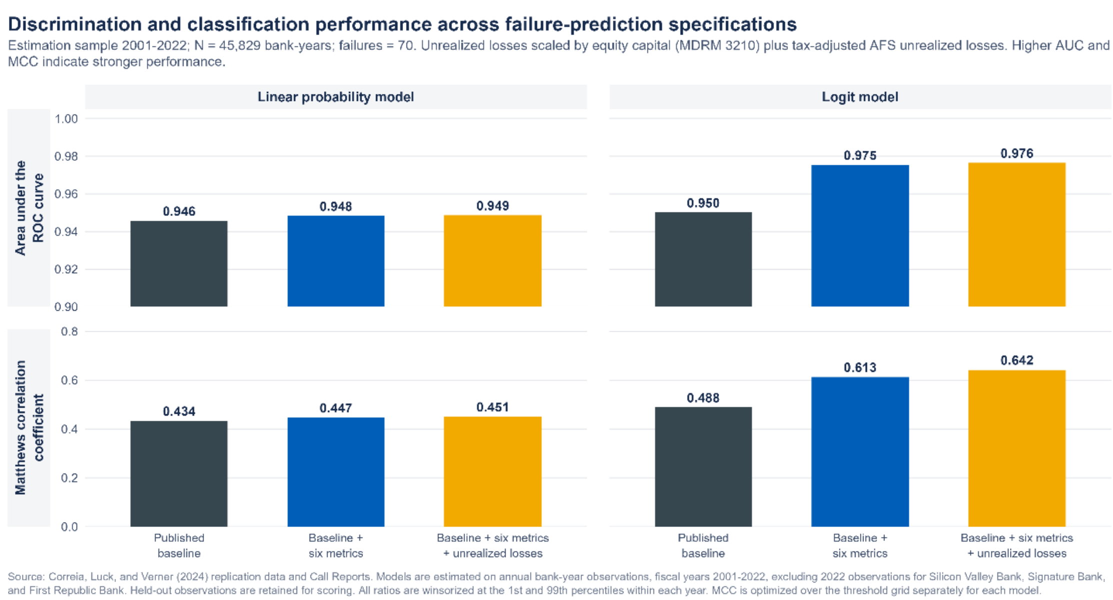


Figure 7. Likelihood of bank failure model fit

The left and right columns correspond to the linear probability model and logistic model, respectively. The top and bottom rows use AUC and Matthews coefficient to measure model fitness.



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Addendum Item 6 –

Social Media Analysis Re
The Failure of Silicon Valley Bank

Preliminary Findings:
Social Media Analysis Re
The Failure of Silicon Valley Bank

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Introduction

In the wake of the failure of Silicon Valley Bank ("SVB") in March, 2023, various official accounts examining the reasons for SVB's collapse were published in the following weeks and months by the Federal Reserve (the "Fed"), the Fed's Office of the Inspector General, the Government Accountability Office, the Financial Stability Board, and the Basel Committee on Banking Supervision, among others. The explanations in the reports reflect similar themes, one of which is that "social media fueled the run." This appears to have become part of the established public narrative regarding SVB's failure.

At the request of Starling Advisory Group ("Starling"), Charles River Associates' project team ("CRA") was instructed to conduct an independent, data-driven analysis to examine the effect that social media may have had on SVB's failure, if any.

To accomplish this, CRA collected and analyzed the Twitter discourse related to SVB before, during and after the SVB bank run in March 2023 in order to better understand how the public social media conversation may have affected the bank-run dynamics.

This report summarizes the results of the CRA team's analysis and preliminary findings to date.

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Historical Context

Official Consensus that Social Media "Fueled" the SVB Bank Run

On March 12, 2023, in the immediate aftermath of the collapse of SVB, the Chairman of the House Financial Services Committee, Patrick McHenry, issued a statement saying, "**This was the first Twitter fueled bank run.**"[1] On the same day, U.S. Senator Mark Kelly reportedly asked representatives from the Federal Reserve, Treasury Department, and the Federal Deposit and Insurance Corporation ("FDIC") about **the possibility of censoring social media discourse to prevent future runs on banks**.[2] In a *New York Times* article from March 16, Janet Yellen was quoted as saying, "No matter how strong capital and liquidity supervision are, **if a bank has an overwhelming run that's spurred by social media** so that it's seeing deposits flee at that pace, a bank can be put in danger of failing."[3]

One of the challenges in examining the post-mortem accounts on the failure of SVB is recognizing that social media does not appear to be consistently defined by the various commentators on this topic. For purposes of this analysis, CRA defines social media as publicly viewable commentary, which we consider to be distinct from private communication channels such as group texts, emails and chats.

Several official reports published by U.S. and international agencies have examined the failure of SVB, and many reference social media as a unique factor that may have contributed to the run on the bank. Notably, the Federal Reserve published a report on April 28, 2023, the month after SVB's failure. The report was written by Fed staff at the direction of the then Vice Chair for Supervision, Michael Barr, and entitled, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank" (the "Barr Report").[4]

The Barr Report makes several references to social media. The cover letter to the report, written by Vice Chair Barr, referenced "social media" as one of three "broader issues exposed by the failure of the bank." In his cover letter Mr. Barr states (emphasis added):[5]

> First, the combination of social media, a highly networked and concentrated depositor base, and technology may have fundamentally changed the speed of bank runs. **Social**

[1] https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=408652

[2] https://www.public.news/p/exclusive-senator-mark-kelly-called

[3] https://www.nytimes.com/2023/03/16/business/janet-yellen-stabilize-banking-system.html

[4] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

[5] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

> **media enabled depositors to instantly spread concerns about a bank run,** and technology enabled immediate withdrawals of funding.

Within the body of the Barr Report, it states (emphasis added):[6]

> These deposit outflows reflected fundamental concerns about the bank and appear to have been sparked by a number of interrelated factors: heightened uncertainty and changing sentiment around the technology sector; potential negative action from credit rating agencies; and highly correlated withdrawals from SVBFG's concentrated network of VC investors and technology firms who, **fueled by social media,** withdrew uninsured deposits in a coordinated manner at an unprecedented rate.

Regarding changes to supervision and regulation, the Barr Report cites social media as a factor (emphasis added)[7]:

> Finally, while SVBFG failed because of a particular constellation of factors, that is only one realization of many potential outcomes across supervised firms and over time. Constructive change to the Federal Reserve's supervision and regulation needs to be robust and reflect not only the factors that proved pivotal for SVBFG but also a broader range of potential scenarios that may have not yet materialized and could be equally consequential. This is particularly true in an environment like this one with rapid financial and technological innovation, competition from new financial entrants, macroeconomic uncertainty, more rapid financial flows, **and faster communication through social media,** all of which bring an uncertain combination of risks and opportunities for the banking system.

The Barr report also states (emphasis added)[8]:

> Uninsured depositors interpreted SVBFG's announcements on March 8 as a signal that SVBFG was in financial distress and began withdrawing deposits on March 9, when SVB experienced a total deposit outflow of over $40 billion. **This run on deposits at SVB appears to have been fueled by social media** and SVB's concentrated network of venture capital investors and technology firms that withdrew their deposits in a coordinated manner with unprecedented speed.

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[6] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

[7] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

[8] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

Several months later, the Basel Committee on Banking Supervision issued a report in October 2023 (the "Basel Committee Report") that included verbatim wording from the Barr Report stating (emphasis added):[9]

> These deposit outflows reflected fundamental concerns about the bank and appear to have been sparked by a number of interrelated factors: heightened uncertainty and changing sentiment around the technology sector; potential negative action from credit rating agencies; and highly correlated withdrawals from SVBFG's concentrated network of VC investors and technology firms who, **fuelled by social media**, withdrew uninsured deposits in a coordinated manner at an unprecedented rate.

The Basel Committee Report also discusses challenges in managing a bank's liquidity risk including, among other items (emphasis added), **"the role of social media and the digitalisation of financing in hastening the speed and impact of a bank's distress."**[10]

The Office of Inspector General ("OIG") issued a report ("OIG Report") on September 25, 2023 which stated (emphasis added):[11]

> While management and the board of directors were unaware of the vulnerabilities inherent in the bank's condition and significantly overestimated the stability of the bank's deposit base, **SVB clients became concerned by SVBFG's announcement and began to speculate about the bank's solvency on various social media platforms.**

The Financial Stability Board ("FSB") issued a report ("FSB Report") on October 10, 2023, which stated (emphasis added):[12]

> Unrealised losses from concentrated bond exposures and liquidity and maturity mismatches during a time of significant monetary tightening, combined with a large proportion of concentrated and uninsured deposits **and social media influence**, led to the deposit run on SVB.

Later in its report, the FSB Report also used verbatim language from the Barr Report stating, (emphasis added):[13]

> By the end of the day on 9 March, over USD 40bn of deposits (almost 30%) had left the bank and another USD 100bn were set to leave the next morning. **This run on deposits at SVB appears to have been fuelled by social media and SVB's concentrated network of**

[9] https://www.bis.org/bcbs/publ/d555.pdf
[10] https://www.bis.org/bcbs/publ/d555.pdf
[11] https://oig.federalreserve.gov/reports/board-material-loss-review-silicon-valley-bank-sep2023.pdf
[12] https://www.fsb.org/uploads/P101023.pdf
[13] https://www.fsb.org/uploads/P101023.pdf

> **venture capital investors and technology firms that withdrew their deposits in a coordinated manner with unprecedented speed.**

The FSB Report adds, "The role of social media in the SVB depositor run illustrates the dynamics that can arise. **Social media posts advised depositors to withdraw funds from SVB, and many uninsured depositors did so all at once**."[14]

How Was Social Media Defined and Measured in Official Accounts of SVB's Failure?

CRA notes that the Barr Report does not define what it considers to be "social media," nor what it means by "fueled." The Barr Report also does not explain how it arrived at this conclusion that social media fueled the run—in other words, whether they examined any data that substantiated this. Similarly, neither the FSB Report nor the OIG Report define social media or state how they arrived at this assertion.

The Basel Committee Report, which as stated above inserted verbatim wording from the Barr Report that "social media fuelled the run," does however include their definition of social media. The Basel Committee Report defines it in footnote 25 of its report as encompassing multiple mediums, including private communications, stating (emphasis added):[15]

> Advances in the digitalisation of finance – including faster payment / settlement services and on-demand access to banking services through mobile apps – are removing many of the frictions that may have previously slowed down the magnitude of liquidity outflows (in some jurisdictions, limits on the amount of online credit transfers have been introduced by banks in response to digital fraud incidents, which may potentially reduce the speed and magnitude of outflows). Second, **the proliferation and prevalence of a wide range of social media channels – including public platforms, encrypted messaging channels, internal corporate messaging services and specialist forums** – are accelerating the spread of (founded or unfounded) concerns about banks' viability and uninsured depositors' fear about incurring losses in the event of resolution.

As is the case with the three other official reports referenced above, the Basel Committee does not describe what data it reviewed, if any, to arrive at the assertions about social media fueling the run. It appears that these official accounts largely echoed the Barr Report, which was issued first.

The Cookson Study

Interestingly, the concept of "social media fueled the run" appeared on the FDIC website 10 days prior to the Barr Report in a research study led by J. Anthony "Tony" Cookson ("Cookson") and four

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[14] https://www.fsb.org/uploads/P101023.pdf

[15] https://www.bis.org/bcbs/publ/d555.pdf

other academics entitled, “Social Media as a Bank Run Catalyst,” (“the Cookson Study”), dated April 18, 2023.[16] The opening abstract to the paper stated as follows (emphasis added):

> **Social media fueled a bank run on Silicon Valley Bank** (SVB), and the effects were felt broadly in the U.S. banking industry. We employ comprehensive Twitter data to show that preexisting exposure to social media predicts bank stock market losses in the run period even after controlling for bank characteristics related to run risk (i.e., mark-to-market losses and uninsured deposits). **Moreover, we show that social media amplifies these bank run risk factors**.

Some contemporaneous news media accounts appear to have interpreted the Cookson Study’s findings to indicate that social media caused the SVB bank run, which may have contributed to establishing the public narrative about social media “fueling” the run. A *Wall Street Journal* article from April 28, 2023 titled “The Surprising Risk That Turbocharged a $142 Billion Bank Run” discusses the Cookson Study’s findings, noting that Cookson, “set out to answer what might be the most intriguing question about the bank run: Was it fueled by social media?,” adding: “...Their buzzy new working paper presents compelling evidence that social media like Twitter didn’t simply expose the risks of a bank run. It exacerbated them.... **The whispers about SVB concerns had spread through private WhatsApp chats and Slack channels, but Twitter was the megaphone that amplified them.**”[17] Another article headlined: “Twitter whipped up financial panic and fueled SVB failure, researchers say.”[18]

Cookson later presented these findings at the FDIC's 22nd Annual Bank Research Conference on September 28-29, 2023.[19] The statement that “social media fueled the run” was not in that presentation, nor was it in the abstract of the updated version of the study dated August 11, 2025 which was accepted at the Journal of financial Economics.[20]

The “Our Findings” portion of Cookson’s FDIC presentation about the study stated: “High preexposure to Twitter predicts large bank stock losses and deposit outflows in the run period,” and “Social media amplifies classical bank run risk factors.”[21] The “Conclusion” of the presentation stated: “Twitter communication and coordination have an imprint beyond SVB...Existing run risks are greater in the presence of social media...Social media is distinctive in its virality....Preexposure to

[16] https://www.fdic.gov/system/files/2024-07/cookson-paper.pdf
[17] https://www.wsj.com/tech/silicon-valley-bank-run-twitter-59061759
[18] https://english.elpais.com/economy-and-business/2023-05-12/twitter-whipped-up-financial-panic-and-fueled-svb-failure-researchers-say.html
[19] https://www.fdic.gov/analysis/cfr/bank-research-conference/annual-22nd/presentations/cookson-presentation.pdf?utm_source=chatgpt.com
[20] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4422754
[21] https://www.google.com/search?q=fdic+22nd+annual+bank+conference&rlz=1C1GCEA_enUS1173US1173&oq=fdic+22nd+annual+bank+conference&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIGCAEQRRg8MgYIAhBFGDzSAQg1MjM4ajFqN6gCALACAA&sourceid=chrome&source=chrome.ob&ie=UTF-8

Twitter conversation matters, tweets by startup community members (who are depositors) have more impact, so do contagion conversations."[22]

Counter-Narrative: Private Communications Fueled the Bank Run

There are countless post-mortem news articles about SVB's failure that repeat the assertion that "social media fueled the run," which may have contributed to establishing this as the public narrative. The day the Barr Report was issued, *Forbes* ran a story headlined, "Federal Reserve Says Social Media Partially At Fault For Silicon Valley Bank's Failure."[23] Many publications also ran stories citing the Cookson Study mentioned above, "Social Media as a Bank Run Catalyst."[24] Even a year later on March 9, 2024 a *Wall Street Journal* article stated, "Many have pointed to social media and 'round-the-clock digital banking as responsible, arguing they facilitated depositors' panic."[25]

However, there are also multiple news articles which contradict the conclusion that social media fueled the SVB bank run.

On March 29, 2023, *Bloomberg* published an article counter to that above assertion titled, "**SVB's Demise Swirled on Private VC, Founder Networks Before Hitting Twitter: Don't blame social media for Silicon Valley's banking crisis**." This article stated (emphasis added):[26]

> **Politicians called the dramatic collapse of Silicon Valley Bank the "first Twitter-fueled bank run."** But in the highly networked tech industry, **public social media feeds didn't actually drive the fast-growing anxiety over SVB's financial position — that happened in private.**
>
> **Channels like messaging platform WhatsApp, email chains, texts and other closed forums were full of chatter over the bank's financial precarity well before those fears showed up [on] Twitter**. In tech, where executives' networks can dictate whether companies have access to the best information, warnings about SVB had been simmering for a while when they boiled over into wider view online.

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[22] https://www.fdic.gov/analysis/cfr/bank-research-conference/annual-22nd/presentations/cookson-presentation.pdf?utm_source=chatgpt.com

[23] https://www.forbes.com/sites/dereksaul/2023/04/28/federal-reserve-says-social-media-partially-at-fault-for-silicon-valley-banks-failure/

[24] https://www.fdic.gov/system/files/2024-07/cookson-paper.pdf

[25] https://www.wsj.com/finance/banking/a-year-after-silicon-valley-banks-collapse-the-rules-are-still-catching-up-90ac5f81

[26] https://www.bloomberg.com/news/articles/2023-03-29/svb-bank-run-fears-swirled-on-vc-founder-networks-before-hitting-twitter

> "**It wasn't phone calls; it wasn't social media**," said a Silicon Valley startup founder who watched the fear escalate that week in March. "**It was private chat rooms and message groups**." This person, who requested anonymity discussing private message conversations, said it was particularly alarming to hear from other founders who said they would move their money.
>
> **By the time most people figured out that a bank run was a possibility on Thursday, March 9, it was already well underway**.

The *Bloomberg* article notes (emphasis added) that some startup founders had "**first heard chatter about Silicon Valley Bank's financial straits in January via WhatsApp messages**," and that news of the bank's financial health began spreading more widely in Silicon Valley on or around March 8, 2023 "**mostly via email and phone calls**."[27]

This article also notes that venture capital ("VC") funds had begun advising portfolio companies to "exercise caution around deposits with SVB" as early as November 2022.[28] The theme that VC companies began advising portfolio companies and founders to pull funds out of SVB was widely discussed in traditional media sources beginning on March 9, 2023 – as described in the Mainstream Media Reporting section in the body of this report below.

Numerous additional media articles were identified which discussed how information about SVB spread within Silicon Valley through private communication channels. On March 12, 2023, *The Wall Street Journal* published an article titled, "How Silicon Valley Turned on Silicon Valley Bank," which noted that after SVB announced a capital raise on March 8, 2023 (emphasis added), "**Slack and WhatsApp groups lit up across the startup scene**."[29] This article adds, "On Thursday morning [March 9, 2023], **founders and CEOs were posting... about SVB's financial woes in private Slack channels... By afternoon, Slack was buzzing with messages from people moving all their money out of SVB."**[30]

CRA notes that the examples above may not be comprehensive of all official publications, and statements related to the role social media may have played in the SVB bank run.

[27] https://www.bloomberg.com/news/articles/2023-03-29/svb-bank-run-fears-swirled-on-vc-founder-networks-before-hitting-twitter

[28] https://www.bloomberg.com/news/articles/2023-03-29/svb-bank-run-fears-swirled-on-vc-founder-networks-before-hitting-twitter

[29] https://www.wsj.com/finance/banking/how-silicon-valley-turned-on-silicon-valley-bank-ee293ac9

[30] https://www.wsj.com/finance/banking/how-silicon-valley-turned-on-silicon-valley-bank-ee293ac9

Scope of CRA's Analysis

As mentioned above, the Barr Report and subsequent other official accounts do not uniformly define "social media," if they define it at all. Similarly, it is unclear in the official accounts referenced above what exactly they mean by the term "fueled"—whether this suggests social media "caused" the run or "accelerated" it. For purposes of this analysis, the CRA team defines social media as content that is publicly viewable on the internet. Other mediums of communication such as phone calls, emails, texts, direct messages, internal company Slack channels, WhatsApp messages, etc. are considered private, since the general public does not have access to them.

CRA's analysis specifically focused on Twitter (now known as "X"). For definitional purposes, the terms "social media" and "Twitter" are often used interchangeably in this report. CRA did not have access to, nor did it review, any private communication data such as texts, emails or group chats.

Using specialized software, CRA conducted social media research to better understand the influence social media – and Twitter specifically – had on the bank run on SVB. CRA's analysis focused on reviewing the social media commentary before, during and after the failure of SVB through an algorithmic and systematic collection and examination of relevant English-language Twitter posts. While multiple banks failed and/or came close to failing in March 2023, this analysis focuses predominantly on SVB.

Key Findings to Date

- The topic of SVB did indeed go viral on social media, but only after the bank run was well underway. **The majority of the social media content related to SVB was posted immediately after the bank's closure on March 10th.**
    - There is a high volume of social media content referencing SVB between October 1, 2022 and March 31, 2023 (over 3 million English language tweets). However, CRA identified that approximately 96% of the total Twitter activity related to SVB occurred immediately after the bank's closure by regulators.
    - CRA used 12 pm EST on March 10, 2023 as the "cutoff" point for SVB's failure since that is the reported time that regulators took control of the bank. All social media content published after 12 PM EST on March 10, 2023 was determined to have been posted following the failure of SVB rather than preceding it. Less than 4% of the total volume of Twitter activity collected and reviewed by CRA occurred prior to the bank's failure and closure.
    - This analysis suggests that, while the topics of SVB and SVB's failure gained significant traction on social media, the bulk of the social media commentary about

these topics was post-mortem analyses immediately following the failure of the bank.

- **Several prescient posts were identified in the weeks and months preceding SVB's failure, discussing fundamental problems at SVB** — including exposure to the tech sector downturn and a high concentration of uninsured deposits.

    - CRA identified Twitter posts from November 2022 describing SVB as technically "insolvent," questioning whether regulators would intervene or "wait until $SIVB starts losing deposits," and expressing surprise that SVB had not yet raised capital.

    - Posts from February 2023 include a financial newsletter author stating that SVB "was, based on the market value of their assets, technically insolvent last quarter and is now levered 185:1," and separately discussing a "non-trivial chance" of a bank run — two weeks before one occurred.

    - **Although warning signs of the SVB collapse were openly discussed on social media by financial journalists, venture capitalists, and other market participants well before the run, this early commentary does not appear to have had any measurable effect on markets or on SVB itself.**

- CRA also examined SVB-related posts during the run period itself, to understand whether social media "fueled" the bank run. CRA defined the SVB run period as 12 AM EST on March 8, 2023 through 12 pm EST on March 10, 2023.

    - The vast majority of posts during the run period came from third-party accounts commenting on peripheral themes — for instance, citing the SVB failure as evidence of the importance of decentralized cryptocurrency, or as an example of Jim Cramer's alleged incompetence (Jim Cramer, the host of CNBC's Mad Money, had recommended SVB's stock weeks before the bank's collapse).

    - CRA also identified a smaller subsection of relevant first-person Twitter posts about the VC community advising founders to move money out of SVB. During the day of March 9, 2023, CRA identified numerous posts from startup founders and other individuals noting things like "some of our investors have reached out and suggested we move money out of SVB" or "I got a 4th email from a VC fund suggesting to move money out from SVB."

        - Some startup founders posted publicly on Twitter about their own withdrawals from SVB, posting content such as "I moved money from one SVB account today to make sure I was below FIDC limits – def worried," and

“Today we are moving our funds off SVB. If you have any balances above $250l (the FDIC-insured limit) you might want to consider.”

- Other individuals posted about technical issues logging into their SVB accounts or withdrawing money from the bank.

- **In general, these tweets confirm a wave of coordinated withdrawal advice coming from the VC firms to tech founders occurring on March 9. However, these social media posts also indicate that most of that withdrawal advice happened outside of publicly viewable social media channels**, with people subsequently posting on Twitter about the flurry of communication that had occurred earlier (i.e. one individual posted that their “DMs & email threads re SVB are LIT).”

- By the evening of March 9, 2023, mainstream media outlets (including *Bloomberg, Axios, TechCrunch* and *The Information)* had all published articles indicating that VC firms were advising their founders to withdraw money from SVB.

  - These articles referenced some of the top names in the VC industry (including Peter Thiel’s Founders Fund, Y Combinator, Union Square Ventures and Coatue) as having been amongst those to advise founders to withdraw funds from SVB.

  - Following the mainstream news media publication of articles the evening of March 9th related to VC firms advising their portfolio companies to withdraw funds from SVB, the topic gained significant traction and visibility on social media, with numerous additional posts about it, largely from third-party accounts commenting on or further disseminating the mainstream news publications.

In sum, the analysis reveals that early posts in 2022 and early 2023 highlighting issues at SVB received limited attention and had no measurable effect on SVB itself or the markets. CRA did identify Twitter posts from individuals discussing their withdrawal of funds from SVB during the bank run period. However, the analysis indicates that these posts account for less than 0.6% of all SVB-related Twitter posts during the bank run period, and less than 0.02% of the total volume of Twitter activity referencing SVB from October 2022 through March 31, 2023. The majority of Twitter posts analyzed during the run period relate to peripheral themes mentioning SVB as opposed to specifically mentioning withdrawal of deposits.

Moreover, the majority of first-person posts reviewed by CRA indicate that the run was initiated via private communications (DMs, emails, texts, internal corporate messaging platforms, and phone calls) from VCs to startup founders on or before March 9, 2023. The fact that these private communications were occurring was subsequently posted about on social media and written about by journalists and published in traditional news media outlets at the end of the day on March 9th. The greatest volume of social media commentary on Twitter about SVB (96%) occurred following the bank's failure on March 10th. The analysis thus does not support the characterization of the SVB run as "social media fueled."

Social Media Data Collection Methodology

CRA utilizes a third-party software tool to collect and analyze social media data. This software tool can aggregate online content from hundreds of online platforms, including access to the entire "firehose" of Twitter (now called X)[31] data. Social media is a "catch all" term which encompasses numerous online platforms and apps; however, for the purposes of this report, CRA focused its analysis specifically on Twitter data and Twitter discourse as a proxy for broader social media conversation.

The software tool operates by the user creating a Boolean search string, or query, on a given topic and then importing relevant Twitter results from a given time period for analysis. CRA notes that any tweets which might have been deleted prior to the date of import would not be captured by this software tool or any other social media collection tool.

In the case of research into the SVB failure, CRA ran the following Boolean query of search terms:

Figure 1.1 – SVB Search Terms

```
"Silicon Valley Bank" OR "SVB Financial" OR SIVBQ OR $SIVBQ OR "Silicone Valley Bank" OR "#SVB" OR #SiliconValleyBank OR "SV Bank" OR
"SVB collapse" OR "SVB run" OR $SIVB OR SIVB
```

These search terms were created to broadly identify as many relevant posts as possible referencing SVB (including possible misspellings of the bank's name, such as "Silocone Valley Bank" instead of "Silicon Valley Bank"), while minimizing false positive results.

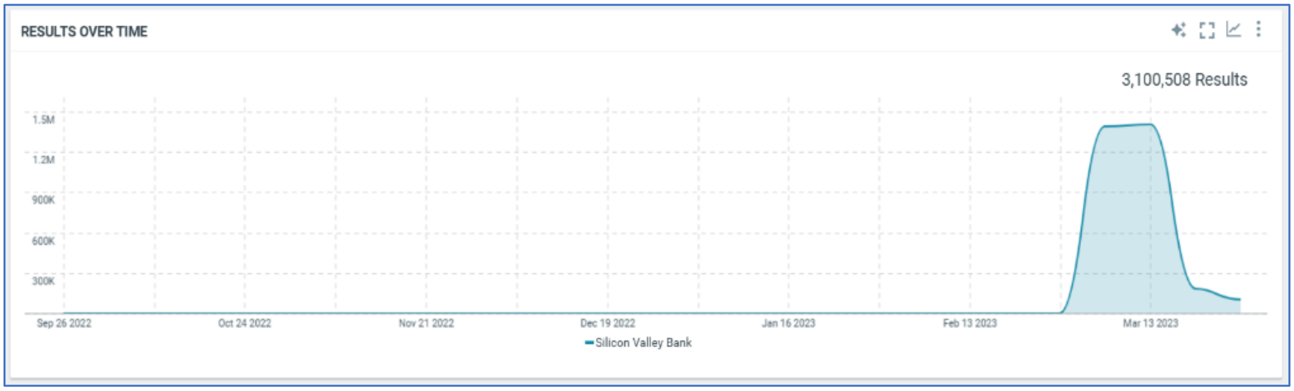
Delineation of Relevant Date Range

CRA focused on analyzing Twitter data related to SVB for a six-month period preceding and including the failure of the bank, as discussed below. For context, this date range also encompasses the timing of the failure of FTX in November 2022.

[31] We note that Twitter rebranded as "X" in July 2023. However, because the platform was still known as Twitter during the time of the SVB failure, for the purposes of consistency and continuity in this report, we will continue to refer to "X" by its old name of Twitter and refer to X posts as "Tweets."

The SVB query identified approximately 3.1 million English-language tweets related to SVB, which were posted between October 1, 2022 and March 31, 2023, as displayed below.

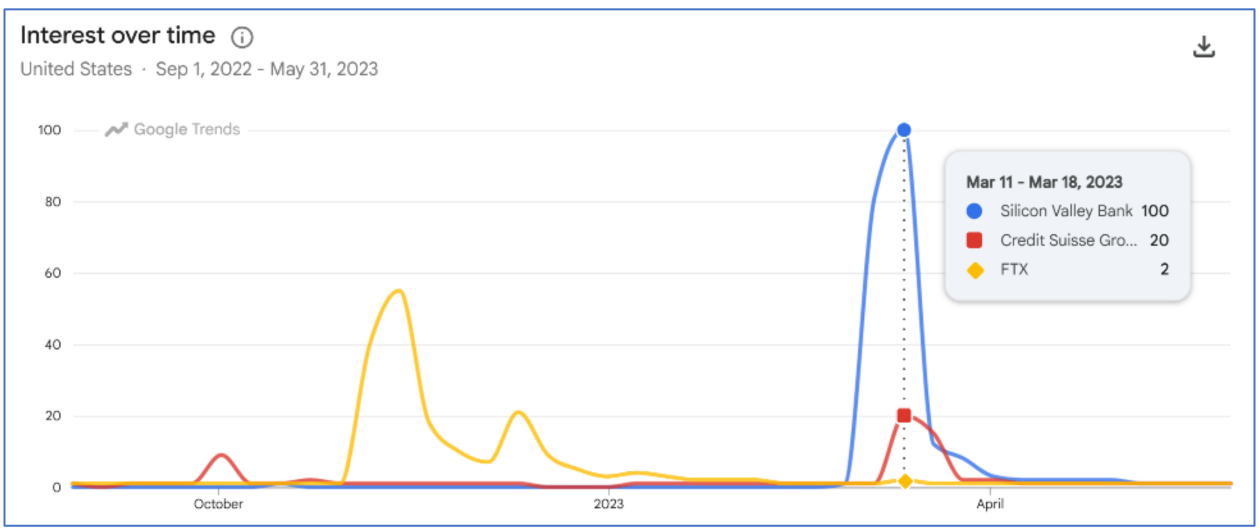
Figure 2.2 – All SVB-Related Tweets (October 2022 – March 2023)



As illustrated in the large content spike in the graphic above, most of these Twitter results were posted in early March 2023, within one week of the failure of SVB.

This social media activity correlates closely to general internet interest in the topic of SVB, as illustrated by the Google Search Trends graphic from the same period displayed below.

Figure 3.3 – Google Search Trends



CRA's social media analysis focused on understanding Twitter activity before, during and after the failure of SVB.

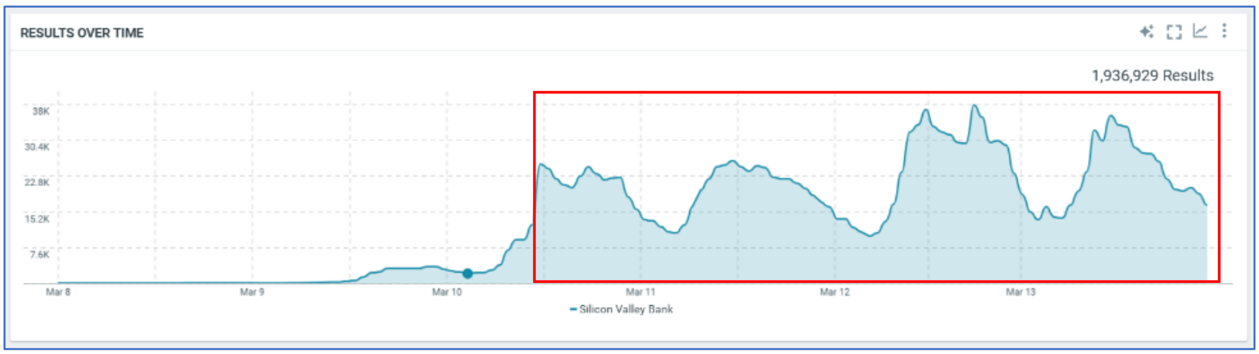
Identification of SVB Failure "Cutoff"

CRA notes that specifying the cutoff for the SVB failure is crucial to a social media analysis as such a high volume of Twitter discourse occurred immediately following the failure of the bank, as discussed further below.

As a point of comparison, CRA notes that the Cookson Study specifically analyzed a "5 day run period (March 8 through March 13)."[32]

CRA's data set identified 1.9 million English-language Twitter results referencing SVB during this same five-day run period (12:00 AM on March 8, 2023 through 11:59:59 PM on March 13, 2023), as defined by the Cookson Study. However, only 89,984 of these tweets (or approximately 4.5% of the five-day total) *preceded* the failure of the bank; more than 95% of the tweets referencing SVB between March 8, 2023 and March 13, 2023 occurred after the bank had been closed by regulators on March 10, 2023, as illustrated by the red box in the graphic below.

Figure 4.4 – Volume of Tweets Immediately Following SVB Failure



Because of the high volume of tweets occurring immediately following the closure of SVB, defining the exact time that SVB failed is a critical step in the analysis to be able to understand which social media posts preceded the bank's failure, and which ones were posted during and following the failure.

The former FDIC Chairman Martin J. Gruenberg testified before congress following the failure of SVB; during his remarks, he noted (emphasis added):[33]

> The evening of March 9, the FDIC was informed by SVB's primary federal regulator, the Federal Reserve, of the deposit run, subsequent funding shortfalls and that the bank was unlikely to have adequate liquidity to meet the demands of depositors and other creditors. FDIC staff engaged with the chartering authority, the CADFPI, shortly thereafter. FDIC staff worked through the night with SVB's primary regulators in an effort to put a resolution

[32] https://www.fdic.gov/system/files/2024-07/cookson-paper.pdf

[33] https://www.fdic.gov/news/speeches/2023/spmar2723.html

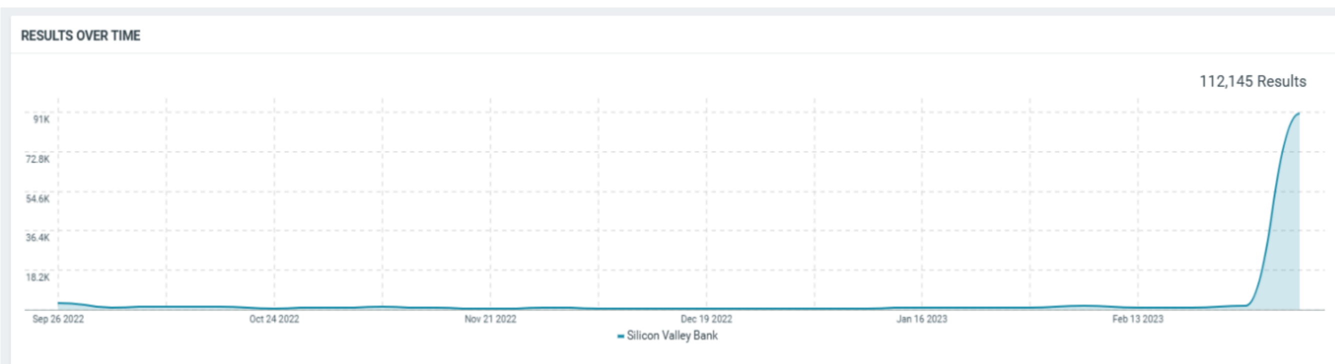
strategy in place. **At 11:15 a.m., EST, on March 10, 2023, SVB was closed by the CADFPI**, which simultaneously appointed the FDIC as receiver.

The FDIC posted a press release to its website on March 10, 2023, titled "FDIC Creates a Deposit Insurance National Bank of Santa Clara to Protect Insured Depositors of Silicon Valley Bank, Santa Clara, California," which noted "Silicon Valley Bank, Santa Clara, California, was closed today by the California Department of Financial Protection and Innovation."[34] This page is not timestamped, and the exact time it was published is not clear. However, media articles began reporting on this by noon EST on March 10, 2023. For instance, *CNBC* posted an article titled, "Silicon Valley Bank is shut down by regulators in biggest bank failure since global financial crisis" on its website at 11:46 AM EST on March 10, 2023, linking to the FDIC press release.[35]

Based on this, CRA selected 12 pm EST on March 10, 2023 as a cutoff for its analysis, classifying any post published prior to 12 PM on March 10 as a tweet "preceding" the failure of SVB, and any post published after that time as a tweet "following" the failure of SVB.

The figure below illustrates the social media discourse related to SVB from October 1, 2022 until its failure cutoff at 12 PM EST on March 10, 2023, as discussed above.

Figure 5.5 – SVB Related Tweets Preceding Bank Failure



Out of the 3.1 million total English-language Twitter identified by the time period CRA reviewed, only 112,145 English-language tweets referencing SVB (approximately 3.6%) were published between 12:00 am EST on October 1, 2022, to 12:00 PM on March 10, 2023.

***More than 96% of the total Twitter activity occurred immediately following the failure of SVB*.** Only approximately 3.6% of the total volume of Twitter activity referencing SVB between October 2022 and March 31, 2023 preceded the failure of the bank.

[34] https://www.fdic.gov/news/press-releases/2023/pr23016.html

[35] https://www.cnbc.com/2023/03/10/silicon-valley-bank-is-shut-down-by-regulators-fdic-to-protect-insured-deposits.html

Defining Pre-Run Period and Run Period Twitter Data Sets

As discussed above, CRA identified 112,145 English-language tweets referencing SVB published between 12:00 am EST on October 1, 2022, to 12:00 PM on March 10, 2023. For the purposes of its analysis, CRA divided this sample of tweets into two distinct time periods:

1) **Preceding the Run Period** (12 AM on October 1, 2022 – 11:59:59 PM on March 7, 2023)
    a. 22,157 posts (0.7% of the total volume of tweets during the time frame reviewed)
2) **During the Run Period** (12 AM on March 8, 2023 – 12 pm on March 10, 2023)
    a. 89,988 posts (2.9% of the total volume of tweets during the time frame reviewed)

CRA analyzed these two data sets separately to better understand:

1) What was the content of Twitter discussion related to SVB prior to the run period, and did any social media posts predict the bank failure prior to the run period?

2) What role did social media play during the SVB bank run?

The findings of these analyses are discussed below.

Research on Tweets Preceding the Run Period

Identification and Analysis of Relevant Posts

CRA manually reviewed a sample dataset of the 22,157 posts contained in the Twitter results for the pre-run period referencing SVB, to identify relevant content.

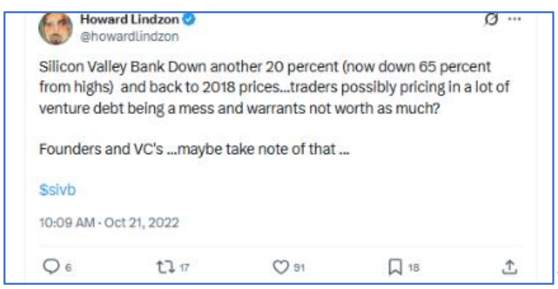
Between October 1, 2022 and March 7, 2023, several social media posts were published on Twitter discussing issues at SVB which, in hindsight, appear to be prescient, as discussed below.

October 2022:

Several tweets were identified from late October 2022 discussing a significant decline in SVB's stock price as a proxy for a broader downturn in the tech industry, as well as discussing dwindling deposits at SVB. These tweets are depicted below:

36

37



38

39

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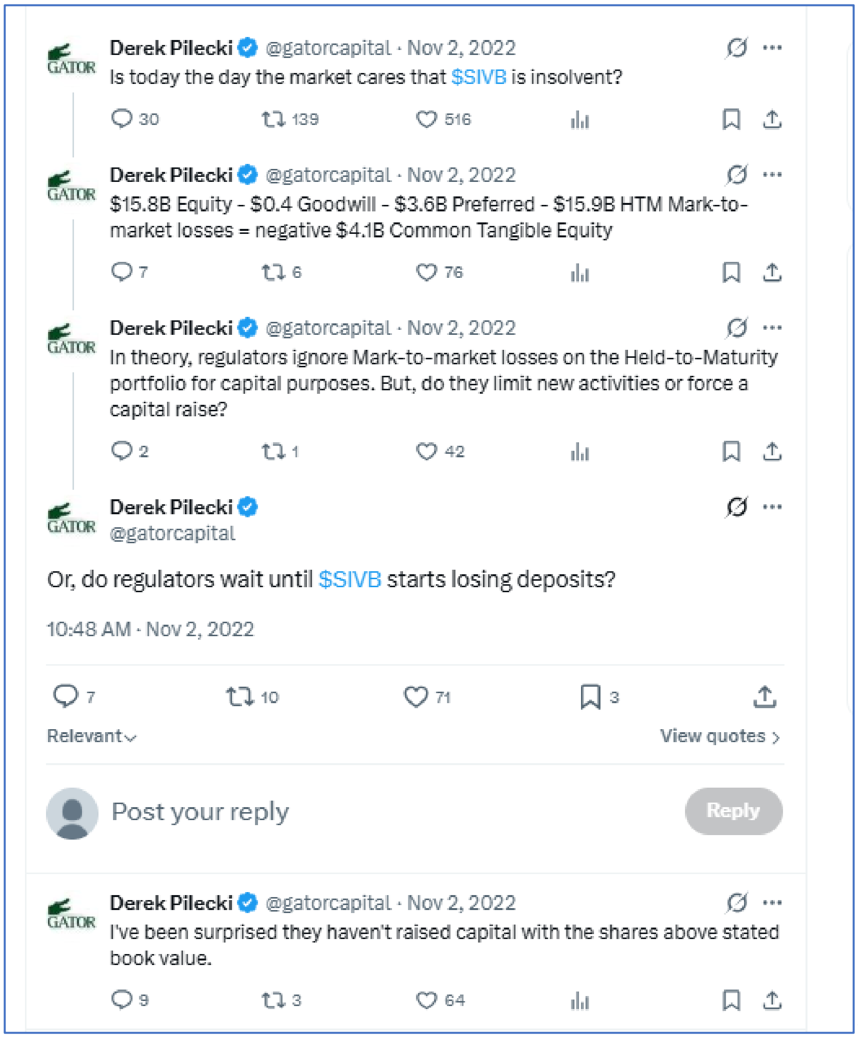
[36] https://x.com/bespokeinvest/status/1583466437351731203
[37] https://x.com/AndrewThrasher/status/1584543960827105281
[38] https://x.com/howardlindzon/status/1583460567582674944
[39] https://x.com/barronsonline/status/1583477729139490816

November 2022:

On November 2, 2022, Derek Pilecki ("Pilecki"), a Portfolio Manager at Gator Capital Management, LLC, published a series of tweets asking, "Is today the day the market cares that $SIVB is insolvent?" Derek Pilecki later posted asking if regulators would shut down SVB bow or "wait until $SIVB starts losing deposits?" He also expressed surprise that SVB has not yet raised capital.[40]

CRA notes that Derek Pilecki has approximately 18,400 Twitter followers currently.[41]

Pilecki's tweets are depicted below.



[42]

Then, on November 13, 2022, Josh Wolfe ("Wolfe") posted to Twitter, stating that SVB "has largest consecutive investment losses past 2 Qs and declining deposit balances. Why?... Because burn

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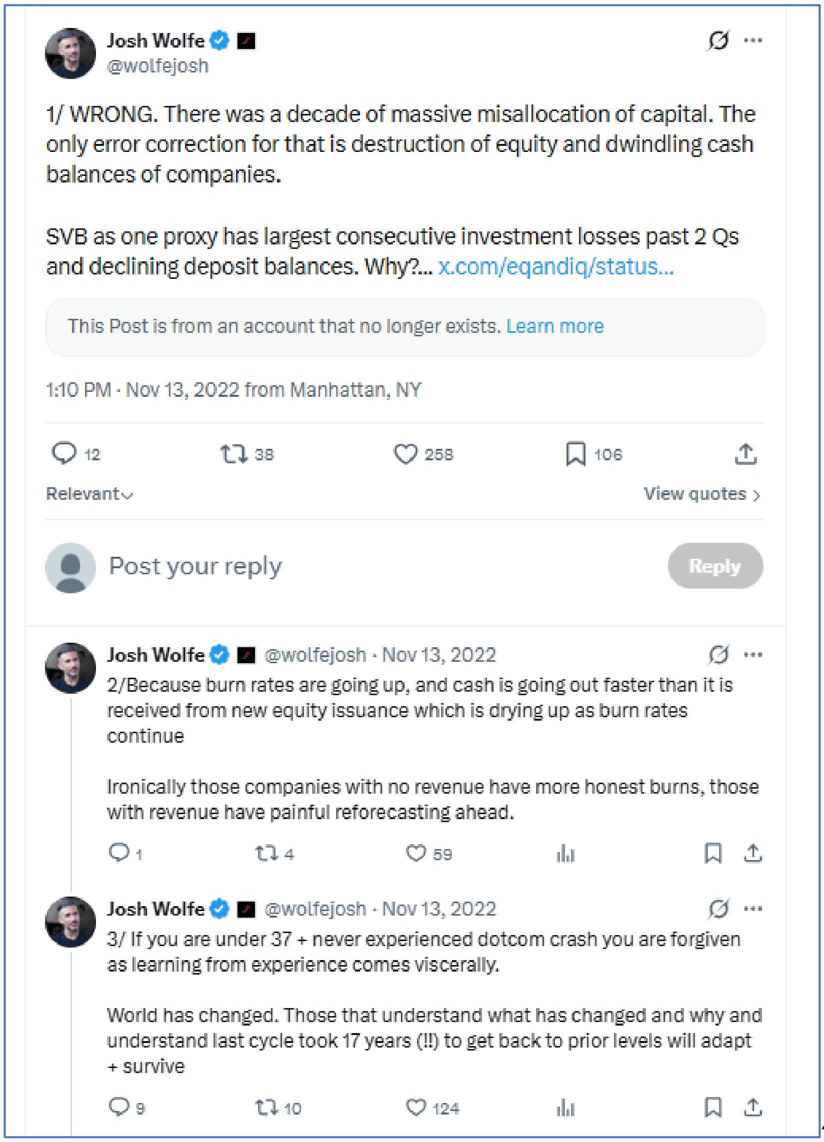
[40] https://x.com/gatorcapital/status/1587818869829386241

[41] https://x.com/gatorcapital. Having 10,000 followers is an "elite" status, with less than 0.05% of twitter account crossing this threshold.

[42] https://x.com/gatorcapital/status/1587818869829386241

rates are going up, and cash is going out faster than it is received from new equity issuance which is drying up as burn rates continue."[43]

Josh Wolfe is a U.S. based venture capitalist and the co-founder of Lux Capital.[44] He currently has approximately 227,600 Twitter followers.[45] His posts are displayed below:


Josh Wolfe
@wolfejosh

1/ WRONG. There was a decade of massive misallocation of capital. The only error correction for that is destruction of equity and dwindling cash balances of companies.

SVB as one proxy has largest consecutive investment losses past 2 Qs and declining deposit balances. Why?... x.com/eqandiq/status...

This Post is from an account that no longer exists. Learn more

1:10 PM · Nov 13, 2022 from Manhattan, NY

12 38 258 106

Relevant View quotes

Post your reply Reply

Josh Wolfe @wolfejosh · Nov 13, 2022
2/Because burn rates are going up, and cash is going out faster than it is received from new equity issuance which is drying up as burn rates continue

Ironically those companies with no revenue have more honest burns, those with revenue have painful reforecasting ahead.

1 4 59

Josh Wolfe @wolfejosh · Nov 13, 2022
3/ If you are under 37 + never experienced dotcom crash you are forgiven as learning from experience comes viscerally.

World has changed. Those that understand what has changed and why and understand last cycle took 17 years (!!) to get back to prior levels will adapt + survive

9 10 124

[46]

January 2023:

No relevant predictive posts were identified in December 2022.

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[43] https://x.com/wolfejosh/status/1594056473599959040
[44] https://www.luxcapital.com/people/josh-wolfe
[45] https://x.com/wolfejosh
[46] https://x.com/wolfejosh/status/1594056473599959040

On January 18, 2023, Raging Capital Ventures – a venture capital investment firm and private family office for William "Bill" Martin[47] – published a series of posts on Twitter discussing a "much bigger set of problems" at SVB other than its "large exposure to the stressed venture world," including noting that "the bank would be functionally underwater if it were liquidated today."[48] The posts by Raging Capital Ventures' Twitter Account (which currently has approximately 57,300 followers)[49] are displayed below:[50]

Raging Capital Ventures
@RagingVentures

Silicon Valley Bank $SIVB reports earnings tomorrow

Investors have rightfully been fixated on $SIVB's large exposure to the stressed venture world, with the stock down a lot.

However, dig just a little deeper, and you will find a much bigger set of problems at $SIVB... 1/10

4:38 PM · Jan 18, 2023 · 3.9M Views

159 1.9K 5.4K 2.5K

Relevant View quotes

Raging Capital Ventures @RagingVentures · Jan 18, 2023
$SIVB rode the VC boom like a champ

Deposits grew from $61 b at Q4 '19 to $189 b at Q4 '21. Interest rates were so low, these deposits were like free money (~25 bps avg. cost). 2/10

7 59 523 338K

Raging Capital Ventures @RagingVentures · Jan 18, 2023
$SIVB used these inflows to:

- Increase loans 100% to $66 b

- Go hog wild with its "held-to-maturity" (HTM) securities portfolio, ramping its mostly Agency mortgage holdings from $13.5 b at Q4 '19 to $99 b at Q4 '21.

3/10

3 46 498 331K

[51]

[47] https://ragingcapitalventures.com/about/
[48] https://x.com/RagingVentures/status/1615826088038473733
[49] https://x.com/RagingVentures
[50] https://x.com/RagingVentures/status/1615826088038473733
[51] https://x.com/RagingVentures/status/1615826088038473733

Raging Capital Ventures @RagingVentures · Jan 18, 2023

$SIVB's big problems are with its HTM portfolio

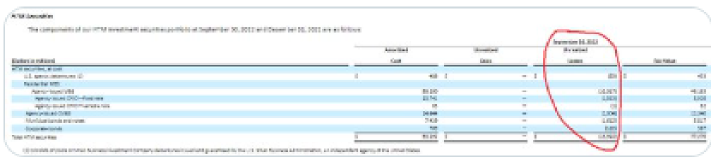
The bank basically increased its security portfolio by 700% at a generational TOP in the bond market, buying $88 b of mostly 10+ year mortgages with an average yield of just 1.63% at Sept 30th. Oops! 4/10

14 175 782 310K

Raging Capital Ventures @RagingVentures · Jan 18, 2023

$SIVB's HTM securities had mark-to-market losses as of Q3 of $15.9 b...compared to just $11.5 b of tangible common equity!!

Luckily, regulators do not force $SIVB to mark HTM securities to market. But the bank would be functionally underwater if it were liquidated today. 5/10



8 125 666 322K

Raging Capital Ventures @RagingVentures · Jan 18, 2023

On top of this, due to the Fed's interest rate hikes, $SIVB is seeing accelerating deposit outflows (-6.5% ytd), a mix shift away from non-interest accounts, and skyrocketing interest costs (money markets now yield 4%). Also, $SIVB's venture clients are burning cash! 6/10

2 42 430 182K

Raging Capital Ventures @RagingVentures · Jan 18, 2023

Basically, as its funding costs reset higher, $SIVB is facing a massive negative carry cost on its HTM, largely fixed-yield securities portfolio (which is not running off quickly, due to the nature of mortgage convexity). 7/10

2 31 406 173K

Raging Capital Ventures @RagingVentures · Jan 18, 2023

The risk for $SIVB is that deposit outflows accelerate at such a pace that it is forced to either raise equity capital and/or sell down its HTM securities portfolio, thus realizing substantial losses. You can bet that $SIVB is praying for a Fed pivot! 8/10

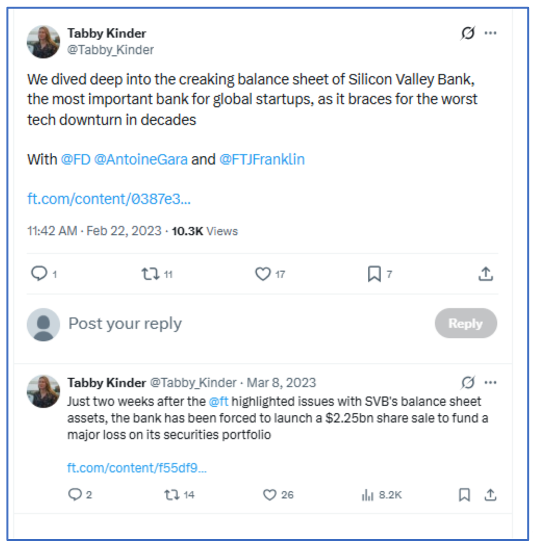
11 105 608 334K

At the end of the posts, Raging Capital Ventures disclosed that they were "short" SVB.

February 2023:

On February 22, 2023, the *Financial Times* published an article titled "SVB profit squeeze in tech downturn attracts short sellers."[52] This article was reposted by *Financial Times* journalists Dan McCrum and Tabby Kinder, as depicted below:

53



54

The next day, on February 23, 2023, Byrne Hobart ("Hobart")[55] – a partner at the venture capital firm the Anomaly Fund and author of The Diff, a daily newsletter about finance and technology issues, posted a newsletter noting that "Silicon Valley Bank was, based on the market value of their assets,

[52] https://www.ft.com/content/0387e331-61b4-4848-9e50-04775b4c3fa7

[53] https://x.com/FD/status/1628705250398928897

[54] https://x.com/Tabby_Kinder/status/1628434946280005636

[55] https://www.linkedin.com/in/byrnehobart/

technically insolvent last quarter and is now levered 185:1.” [56] CRA notes that Hobart currently has approximately 59,800 Twitter followers.[57]

Another Twitter user replied to Hobart’s tweet the next day stating, “There's like a non-trivial chance that your newsletter talking about the possibility of a SVB bank run is what will have caused a SVB bank run.” These tweets are depicted below.

Byrne Hobart
@ByrneHobart

Also in today's newsletter: Silicon Valley Bank was, based on the market value of their assets, technically insolvent last quarter and is now levered 185:1.

This is a pretty striking occurrence: on a mark-to-market basis, they were broke last quarter, albeit still liquid. And that liquidity matters; one reason banks aren't required to mark assets to market is that they can hold them indefinitely as long as they have deposits. On the other hand, Silicon Valley Bank's deposits are less sticky than other companies', since they're provided by mostly money-burning companies. The lack of mark-to-market accounting is a reflection of general banking reality, that banks don't get explicitly margin-called by customers. They *do* sometimes experience runs. It would take an absolutely titanic bank run to actually impair the company's liquidity, so a run is unlikely. And even if the company did run into trouble, there are good political reasons to think that depositors wouldn't be harmed: the people who donate the legal maximum to political campaigns are disproportionately likely to bank with Silicon Valley or work for companies that do.

On the other hand, the tech world is more risk-averse than it used to be, and depositing money into a bank that's still levered 185:1 on an asset base that includes, among other things, "Premium wine"-backed loans in an amount almost equal to last quarter's marked-to-market equity.[1] No one wants to look paranoid by being the first to move their money out, but no one wants to deal with the consequences of being last. And if money does flow out, they eventually have to start selling assets, which turns an "unrealized losses" footnote into a headline loss number.

10:32 AM · Feb 23, 2023 · 3.6M Views

48 389 1.8K 681

Relevant View quotes

Post your reply Reply

Byrne Hobart @ByrneHobart · Feb 23, 2023
I don't expect a bank run; banks don't technically *need* equity, they just need depositors to have a good reason not to flee, and an equity cushion is a great reason. On the other hand, pretty weird situation.

12 38 244 83K

[58]

[56] https://x.com/ByrneHobart/status/1628779894183272452
[57] https://x.com/ByrneHobart
[58] https://x.com/ByrneHobart/status/1628779894183272452

[59]

As illustrated by the examples above, CRA identified several instances of individuals expressing concern on Twitter related to the performance, stability and solvency of SVB during the period preceding the bank run, including instances of individuals discussing the realistic possibility of an SVB bank run *approximately two weeks prior to the actual bank run occurring*.

CRA notes that the individuals discussing these issues at SVB prior to the bank run period were primarily financial journalists, venture capital investors, portfolio managers and short sellers, as discussed above. It appears from the analysis of Twitter data that the broader general public did not begin discussing issues at SVB until the run period, as discussed further below.

Intraday SVB stock reaction to selected social media posts

The preceding section documented a series of public posts on Twitter by financial journalists, venture capitalists, and investment analysts that raised concerns about Silicon Valley Bank's balance sheet months before the March 2023 run. A logical question for supervisors and market participants is whether equity investors were in fact reading and acting on this commentary. If markets were efficiently incorporating these warnings, SVB's stock price likely would have moved detectably in the minutes following each post. Here we test that proposition directly, examining the one-minute intraday response of SVB shares over 15-, 30-, and 60-minute windows around each identified tweet. The evidence indicates the posts did not affect SVB trading: social media commentary on SVB's vulnerabilities produced price reactions statistically indistinguishable from routine intraday noise.

<u>*Source Data*</u>

This analysis uses one-minute trade data on the SVB equity shares trading on the Investor Exchange (IEX) under the ticker SIVB.[60] From the posts reviewed in the preceding section, we identified six tweets that named SIVB directly and were published during regular trading hours (9:30–4:00 pm ET) prior to the run. The six events are:

1. @howardlindzon (2022-10-21),

[59] https://x.com/shalmanese/status/1629019226521636864?sort_replies=recency

[60] Intraday price data was obtained from AlpacaDB, Inc., which provides one-minute IEX trade data including for delisted tickers such as SIVB.

2. @bespokeinvest (2022-10-21),
3. @AndrewThrasher (2022-10-24),
4. @gatorcapitol (2022-11-02),
5. @Tabby_Kinder (2023-02-22), and
6. @BryneHobart (2023-02-23).

Two caveats are worth noting. First, IEX captures only a limited share of consolidated equity volume — roughly 2–4 percent — so price adjustment on other venues, mainly NASDAQ, may be faster than what we observe here. Second, with only six events, statistical power is inherently limited and results should be read as indicative rather than definitive.

Approach

For each tweet, we track SVB's stock price in the 60 minutes before and after publication, measuring any price move relative to the minute just before the tweet appeared. To judge whether any post-tweet movement is unusual, we compare it to a large sample of ordinary SVB trading intervals drawn from outside the event windows — a benchmark that reflects the stock's normal minute-to-minute volatility. Additional information on the analysis and comparison methodology is provided in the Methodology Appendix.

Results

Figure 2.6 – Mean cumulative SIVB log return around selected Tweets, October 2022 – February 2023

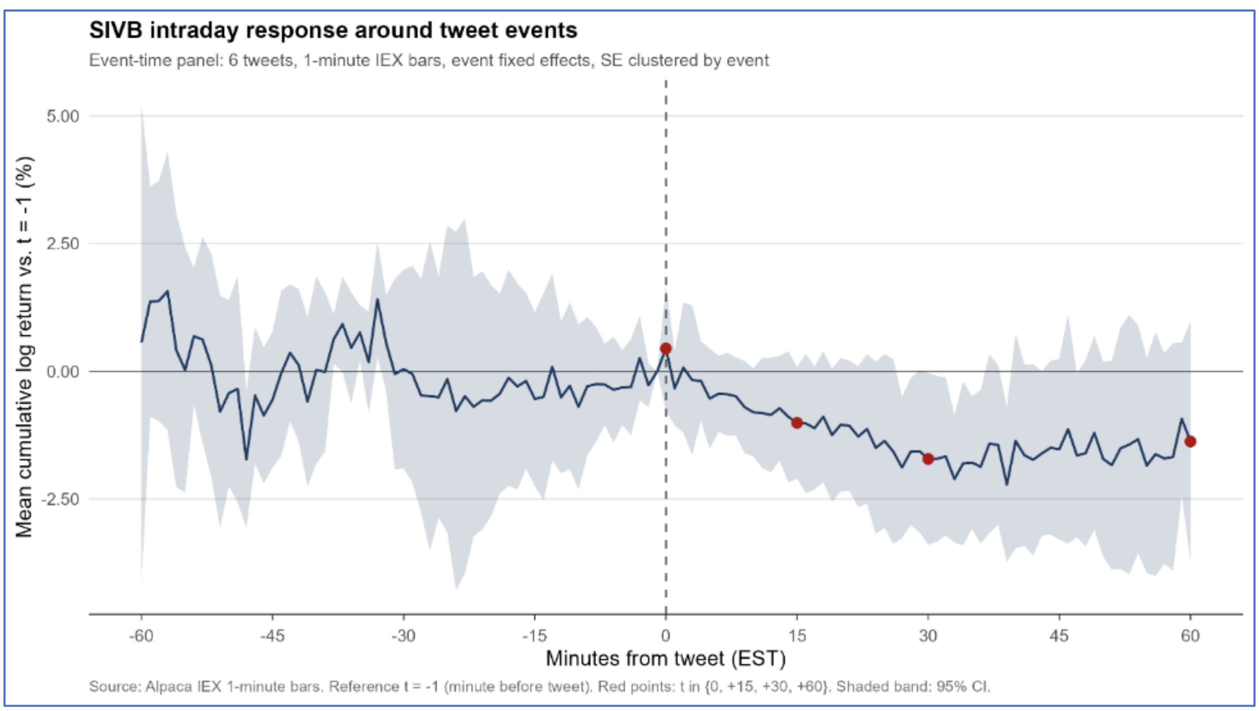
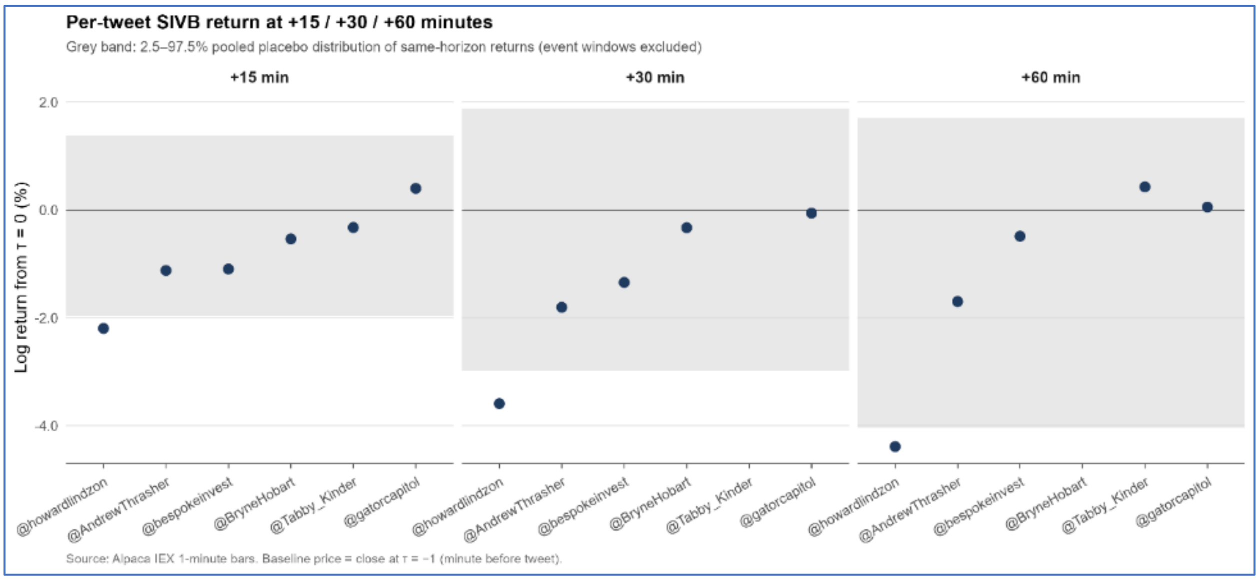


Figure 2.6 shows the average SVB stock price movement in the hour before and after the six tweets. The dark solid line shows the path of SVB stock price, and the shaded area denotes the expected

variation range across the identified Twitter posts. Where the shaded area crosses zero, the reaction is statistically indistinguishable from no price movement at all. The stock path before each tweet is essentially flat — prices were not already drifting in any direction, which gives us confidence that any post-tweet movement can be attributed to the tweet rather than to a pre-existing trend. Had a Twitter post had a stock price impact, the price would move sharply down (or up) at the publication time (minutes from tweet=0 in the plot). At the moment each post was published, the stock barely moved: the average immediate price change was less than half a percent, well within the range of ordinary variation. Over the following hour, the stock price drifted down by one to two percent on average. But this drift was not large enough, relative to how SVB's stock price normally moves, to conclude that the Twitter posts were driving it. In statistical terms, none of the post-tweet price changes are distinguishable from what would happen on a typical trading day.

Figure 7.2: Per-Tweet SIVB cumulative return at +15, +30, and +60 minutes relative to the placebo distribution



There is some heterogeneity across tweets, however. In Figure 7, which shows each Twitter post's individual price impact at 15, 30, and 60 minutes after the publication, against the shaded area representing the range of ordinary SVB price movements over the same intervals. Five of the six Twitter posts' impacts are within the normal range of variation at every horizon — meaning their associated price changes were entirely routine. The one exception is a Twitter post by @howardlindzon on 21 October 2022, whose 60-minute price decline of 4.4 percent just exceeded the outer edge of normal trading variation. No other account produced a response that stood out. The mild average decline seen in Figure 1 is therefore likely driven by this single event; the remaining five tweets caused virtually no variation in the stock price.

Figure 2.8 – Minute-level SIVB price paths around each tweet event

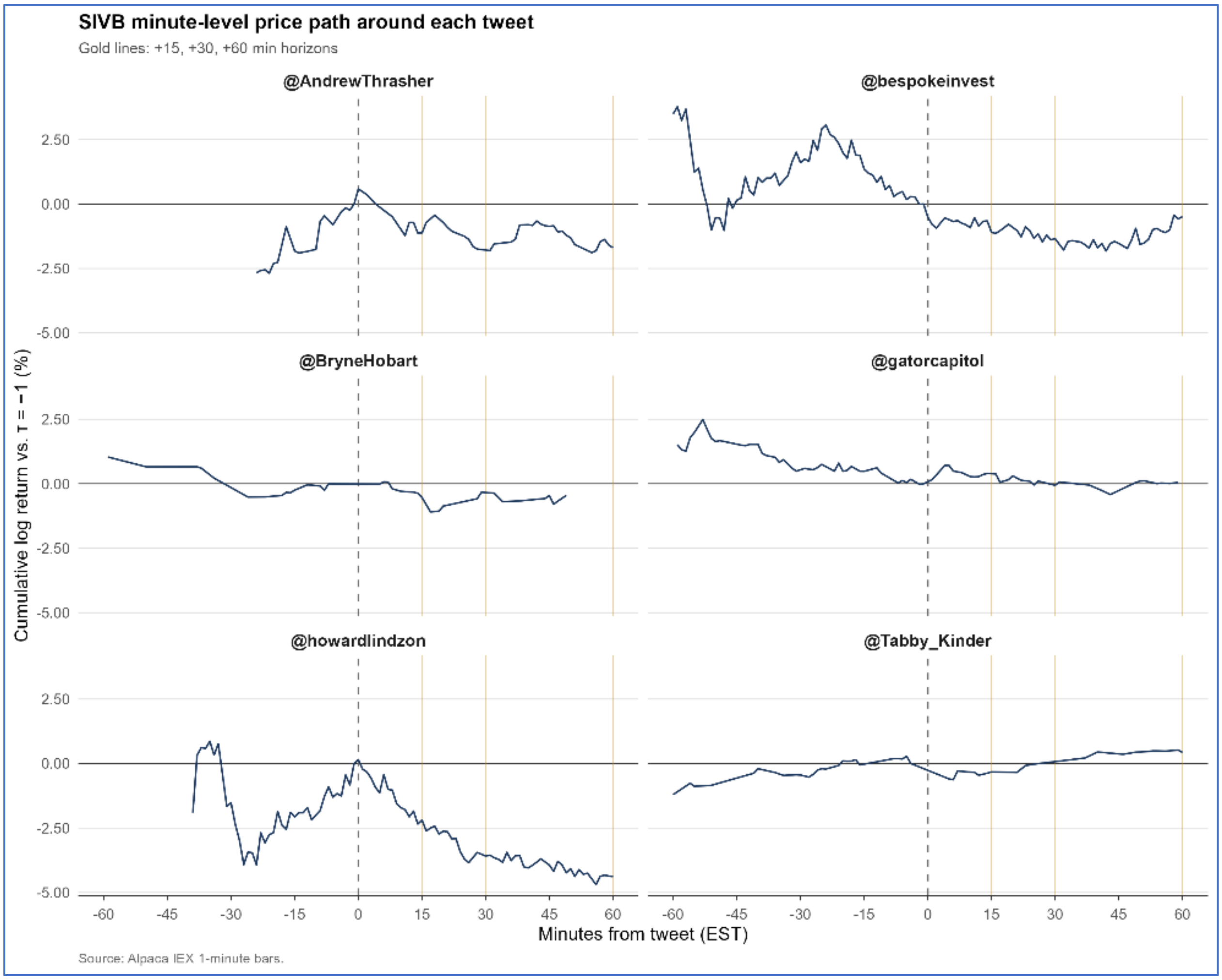


Figure 3 shows each the SIVB stock price path around the publication of the identified Twitter posts. For four of the six accounts — @bespokeinvest, @gatorcapitol, @BryneHobart, and @Tabby_Kinder — SVB's price was already moving before the post was published, suggesting the post-tweet trajectory simply continued a trend already underway rather than reflecting a new reaction. The two events that visually appear to coincide with turning points — @AndrewThrasher and @howardlindzon — were both published in the first half-hour of the trading day, when stock prices tend to be more volatile regardless of news. Across all six accounts, there is no sign of the kind of sharp, sustained price drop that would indicate investors were reading and acting on these posts.

Discussion

This analysis suggests that investors were not reacting to public warnings about SVB on social media. In the months before the bank's collapse, posts from well-followed financial commentators identifying problems with SVB's balance sheet left its stock price essentially unchanged. The small average decline we observe across the six tweets with the highest reach is driven almost entirely by a single post from October 2022 and thus is not statistically robust.

Stock prices are often treated as a real-time gauge of investor sentiment — a signal that regulators can monitor alongside their own analysis. But this episode suggests that equity markets were not incorporating the concerns being aired publicly about SVB, even by credible, high-profile voices. Regardless of whether investors were unconvinced by the commentary or simply slow to act, the stock price offered no advanced warning of the stress that was already visible to informed observers on social media.

Methodology Appendix

For each Twitter event e, we construct a panel of one-minute cumulative log returns benchmarked to the close of the minute immediately preceding publication — the "pre-tweet minute" — spanning a symmetric ±60-minute window. For a tweet published at 9:59 am, for example, the baseline price is the 9:58 am close. Formally,

$$r_{e,\tau} = 100 * log\left(\frac{\mathrm{p}_{e,\tau}}{\mathrm{p}_{e,-1}}\right), \tau \in [-60, +60]$$

We then estimate:

$$r_{e,\tau} = \alpha_e + \Sigma_{k\neq -1}\beta_k \mathbb{1}\{\tau = k\} + \epsilon_{e,\tau}$$

This specification absorbs any level differences across events via fixed effects and clusters standard errors at the event level, which is the appropriate unit of inference here. The sample yields 433 minute-event observations across the six tweets. To assess whether post-event returns are anomalous relative to normal intraday trading, we construct an empirical placebo distribution: pooling all SIVB one-minute returns from outside the ±60-minute event windows and computing same-horizon (15, 30, 60-minute) cumulative returns. The 2.5th and 97.5th percentiles of this distribution form the reference band against which post-event point estimates are evaluated. This non-parametric benchmark is preferable to distributional assumptions given the limited number of events. Thus, the effect is statistically insignificant at the 95% confidence level if the shaded area crosses the zero horizontal line.

The estimating equation includes fixed effects for each event and clusters standard errors at the event level, which is the appropriate unit of inference. The sample yields 433 minute-event observations across the six tweets. To assess whether post-event returns are anomalous relative to normal intraday trading, we construct an empirical placebo distribution by pooling all SIVB one-minute returns from outside the ±60-minute event windows and computing same-horizon (15-, 30-, 60-minute) cumulative returns. The 2.5th and 97.5th percentiles of this distribution form the reference band against which post-event point estimates are evaluated. This non-parametric benchmark is preferable to distributional assumptions given the limited number of events.

Run Period Analysis

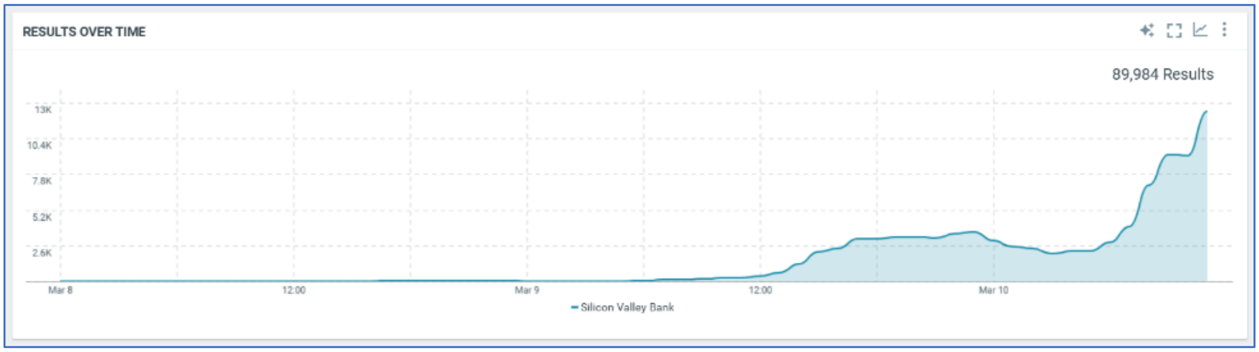
In the preceding section, CRA presented both qualitative and quantitative analysis on the Pre-Run Period tweets referencing SVB, concluding that:

1) Several relevant tweets were published by financial journalists, venture capitalists and other market participants in the weeks and months prior to the SVB bank run which contained information alluding to financial issues at SVB and in some cases discussing the possibility of a bank run or insolvency.

2) These Pre-Run Period tweets did not have any quantifiable effect on the markets.

In addition to examining the Pre-Run Period tweets, CRA conducted research on the Run Period tweets – the 89,988 English-language tweets referencing SVB between 12:00 AM on March 8, 2023 and 12:00 PM on March 10, 2023, as graphed below.

Figure 9.1 – Volume of Run Period Tweets



Mainstream Media Reporting

In addition to examining social media content, CRA also conducted research in Factiva, a database aggregating hundreds of traditional media sources (such as newspaper articles or media articles published online), to identify English-language media articles referencing SVB during the Run Period.

CRA notes that mainstream media reporting on SVB occurred throughout the bank Run Period, and this media reporting occurred in parallel to and frequently influenced the Twitter conversation about the bank. Therefore, understanding the content and timeline of the mainstream media reporting is crucial when analyzing the social media discourse, to understand what social media commentary preceded mainstream news reporting, and which commentary merely disseminated it.

As illustrated below, the volume of traditional media references to SVB spiked exponentially during the SVB run period, similarly to the exponential spike in social media results discussed above.

Volume of Mainstream Media Reporting During Run Period

Similarly to the exponential spike observed in social media results during the Run Period (see Figure 3.1 above), mainstream media articles reporting on SVB also spiked exponentially during the Run Period, as indicated below.

- **March 8, 2023:** 11 English-language articles referencing SVB identified
- **March 9, 2023:** 154 articles identified
- **March 10, 2023:** 1,661 articles identified
- **March 11, 2023 – March 12, 2023:** 2,243 articles identified

Similarly to the analysis of social media, CRA did not review every article referencing SVB but rather applied filters (based on keywords or time period) to identify the most relevant articles for the analysis, which may have influenced the social media conversation during the bank run period.

Media Reporting on Coordinated Withdrawal Advice from VCs during Run Period

As discussed above, subsequent media analysis of the SVB failure identified coordinated advice from VC firms to their portfolio companies and founders as a significant contributing factor to the SVB bank run.[61]

CRA conducted media research to identify when the theme of VC firms advising founders to withdraw money from SVB was first published by traditional media sources. No references to this were identified in media prior to March 9, 2023. Much of the media coverage from March 9, 2023 discussed the bank's declining stock price. *Bloomberg News* published the article "SVB Drops Most on Record as Startup Clients Face Cash Crunch," at 11:08 AM EST on March 9, 2023.[62] This publication discussed SVB's stock price freefall but did not reference specific VC firms advising their companies to pull money out of SVB.

At 3:02 PM EST on March 9, 2023, *The Information,* a subscription-based technology news website which reportedly has an active readership base of more than 475,000[63], published an article to its

[61] https://www.bloomberg.com/news/articles/2023-03-29/svb-bank-run-fears-swirled-on-vc-founder-networks-before-hitting-twitter
[62] https://www.bloomberg.com/news/articles/2023-03-09/svb-plunges-most-since-1998-on-stock-offering-securities-sales
[63] https://www.vanityfair.com/news/2023/12/the-information-jessica-lessin

website co-authored by Kate Clark ("Clark"), titled, "Silicon Valley Bank CEO Tells VC Clients to 'Stay Calm'," which included the following information:[64] [65]

> New York-based venture firm Union Square Ventures this week sent an email to founders advising them to "only keep minimal funds in cash accounts at SVB," that is, funds of up to $250,000. "SVB is in a severe cash crisis," the email read. "Do NOT accept any offers from SVB to keep your money there even if they dangle 5% interest rates in front of you," it said. USV noted it had reached out to many of its portfolio companies earlier in the year saying it had expected such a situation. A representative for the firm declined to comment.

This *Information* article referencing Union Square Ventures ("USV") was the first published news article identified by CRA which related to VC companies advising portfolio companies to remove funds from SVB.

Following this, at 3:40 PM EST, the tech sector and startup focused publication *TechCrunch* published an article titled, "Venture firms are advising portfolio companies to move money out of SVB"; this article stated:[66]

> For some time, SVB has enjoyed significant market share in the startup world, offering both banking and venture lending services to upstart tech companies and their backers, and its reputation appears to be suffering in real time. One founder told TechCrunch that they had heard from two different venture investors at two different firms today to pull their capital from the bank. That advice, it seems, is not unique.
>
> Dozens of GPs are advising portfolio companies to take money out of SVB, TechCrunch learned from several sources. Founders Fund, Valor Equity, Inspired Capital and Hustle Fund are among the firms that have sent guidance to their portfolio companies.

Then, at 3:53 PM EST *Bloomberg News* published the article "SVB Races to Prevent Bank Run as Funds Advise Pulling Cash."[67] At 5:11 PM EST, *Bloomberg* published another article, titled "Peter Thiel's Founders Fund Advises Companies to Withdraw Money From SVB" on its website; this article was later renamed, "SVB Races to Prevent Bank Run as Funds Advise Pulling Cash" and the content

[64] https://www.theinformation.com/articles/silicon-valley-bank-ceo-tells-vc-clients-to-stay-calm
[65] https://www.newcomer.co/p/panic-erupts-as-venture-capitalists
[66] https://techcrunch.com/2023/03/09/silicon-valley-bank-firms-reactions/
[67] https://www.bloomberg.com/news/articles/2023-03-09/svb-ceo-becker-asks-silicon-valley-bank-clients-to-stay-calm

of both articles appears to have been merged.[68] [69] These articles on *Bloomberg News,* which reportedly has an audience of more than 50 million monthly consumers,[70] were the largest mainstream publication (as opposed to more niche sites such as *TechCrunch,* referenced above) to first report on VCs advising portfolio companies to withdraw from SVB. The "SVB Races to Prevent Bank Run as Funds Advise Pulling Cash" article notes:[71]

> **Founders Fund asked its portfolio companies to move their money out of SVB,** according to a person familiar with the matter who asked not to be identified discussing private information. Coatue Management, Union Square Ventures and Founder Collective also advised startups to pull cash, people with knowledge of the matter said. Canaan, another major VC firm, told firms it invested in to remove funds on an as-needed basis, according to another person. [...]
>
> Another firm, Activant Capital, **sent emails and texts** to its portfolio company CEOs encouraging them to transfer their SVB balances to other lenders, and is helping some move capital to First Republic Bank, CEO Steve Sarracino said.

Shortly after *Bloomberg* published its article, the digital media publication *Axios* also published a similar story. *Axios* published an article authored by Dan Primack ("Primack"), a financial journalist, on its website at 5:29 PM ET on March 9, 2023, titled, "Silicon Valley Bank spooks Silicon Valley."[72] This article stated, "Several top venture capital firms, including Coatue and Founders Fund, have suggested to some portfolio companies that they strongly consider pulling money out of SVB, as concerns grow over the bank's stability. Others, including Sequoia Capital, reiterated a longstanding message of diversification, via one-on-one conversations with portfolio companies," adding, "Union Square Ventures told portfolio companies to 'only keep minimal funds in cash accounts' at SVB."[73]

By 7:05 pm EST, *The Los Angeles Times* published an article on its website titled "Silicon Valley Bank tells clients to 'stay calm' as shares sink" which noted that "Peter Thiel's Founders Fund and a handful of other venture capital firms advised their portfolio companies to pull money from Silicon Valley Bank on Thursday"; this article also noted that the CEO of Y Combinator had "warned its

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[68] https://www.bloomberg.com/news/articles/2023-03-09/founders-fund-advises-companies-to-withdraw-money-from-svb?utm_source=twitter&utm_medium=social&utm_campaign=socialflow-organic&cmpid=socialflow-twitter-business&utm_content=business.

[69] https://www.bloomberg.com/news/articles/2023-03-09/svb-ceo-becker-asks-silicon-valley-bank-clients-to-stay-calm

[70] https://finance.yahoo.com/news/bloomberg-media-tops-700-000-144553042.html

[71] https://www.bloomberg.com/news/articles/2023-03-09/svb-ceo-becker-asks-silicon-valley-bank-clients-to-stay-calm

[72] https://www.axios.com/2023/03/09/silicon-valley-bank-svb-spooks-venture-capital

[73] CRA notes that the article on the Axios website is not timestamped, however the page source data for this website includes a published date of 5:29 PM ET.

network of startups that solvency risk is real and implied they should consider limiting their exposure to the lender."[74]

Based on CRA's media review, the information that VCs had advised their portfolio companies to withdraw funds from SVB first began appearing in news sources between 3:00 and 5:00 PM EST on March 9, 2023– starting with subscription or niche publications and expanding to more mainstream sources. By 7:00 PM on March 9, 2023, this news was widely available on numerous mainstream news media publications online.[75]

Amplification of Mainstream News Media Via Social Media

In examining the Run Period Social Media data, CRA found a recurring pattern of journalists or publications posting their content to social media, with that information – which had originated with mainstream reporting – then being widely disseminated through additional accounts.

For instance, Kate Clark, now a reporter for *The Wall Street Journal,* worked for *The Information* at the time of the SVB collapse.[76] As noted above, at 3:02 PM ET *The Information* published an article to its website titled, "Silicon Valley Bank CEO Tells VC Clients to 'Stay Calm'." Shortly thereafter, at 3:45 pm EST, Clark published the following tweet:

[77]

CRA notes the specific wording in Clark's tweet: "I'm hearing that many VC's are advising founders…" and her reference to the email from USV to USV's portfolio companies. This underscores that financial journalists were getting their information from traditional sources, who were referencing non-public communications as opposed to publicly viewable social media.

[74] https://www.latimes.com/business/story/2023-03-09/silicon-valley-bank-startups-panic
[75] https://www.latimes.com/business/story/2023-03-09/silicon-valley-bank-startups-panic
[76] https://www.linkedin.com/in/katelynmayclark/
[77] https://x.com/KateClarkTweets/status/1633932087131799552

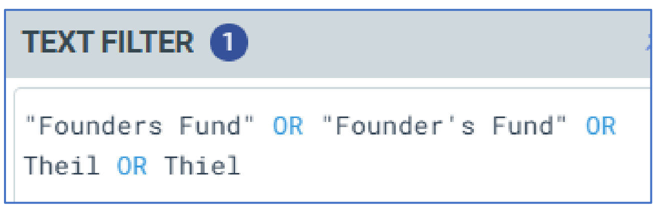
Following this, several social media accounts disseminated the same information. Clark's post was reposted online 144 times.[78] The information from it about USV was included in additional posts as illustrated below:

[79]

Similarly, CRA observed a significant spike in social media content related to Thiel's Founders Fund right around the time that *Bloomberg* published its article, discussed above.

Illustrative Example of Social Media Amplification: Peter Thiel and Founders Fund

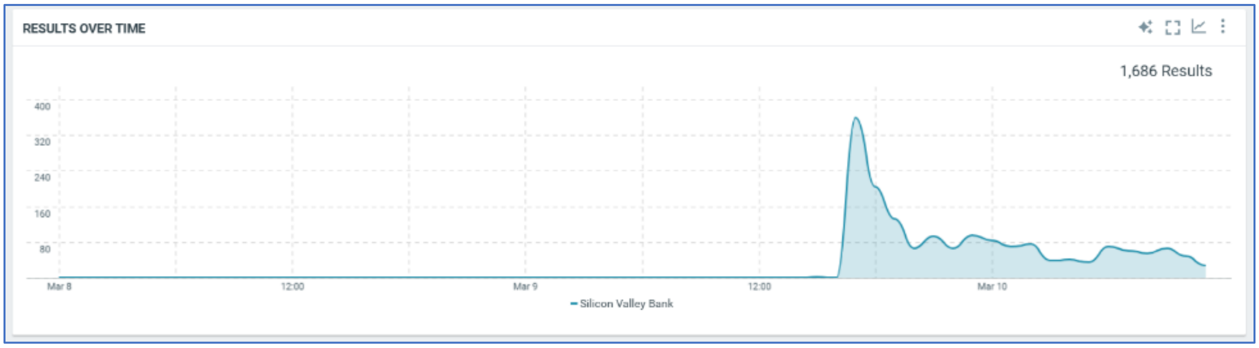
CRA isolated all Run Period tweets referencing Peter Thiel ("Thiel") or Thiel's Founder's Fund, by applying the following text filter to the Run Period tweets:



This text filter identified that more than 1,600 of the Run-Period tweets related to SVB also reference this subtheme of Thiel, displayed below.

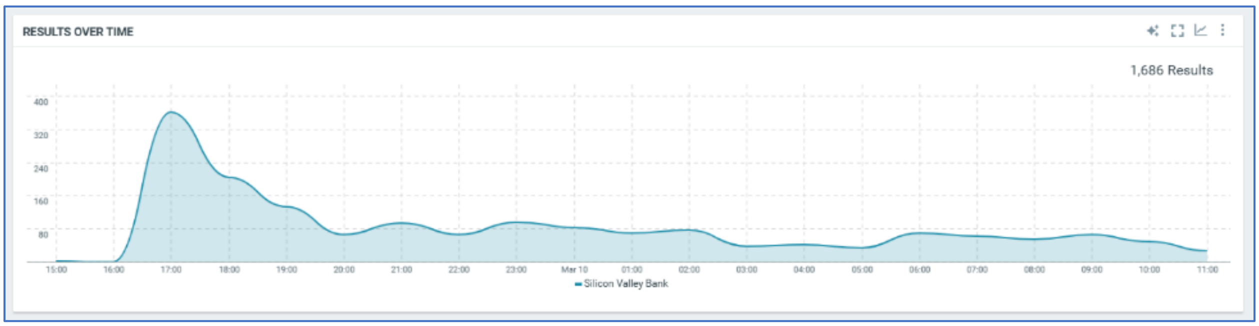
[78] https://x.com/KateClarkTweets/status/1633932087131799552
[79] https://x.com/financialjuice/status/1633982450366857216

Figure 3.2 – Volume of Thiel Related Subtheme Tweets

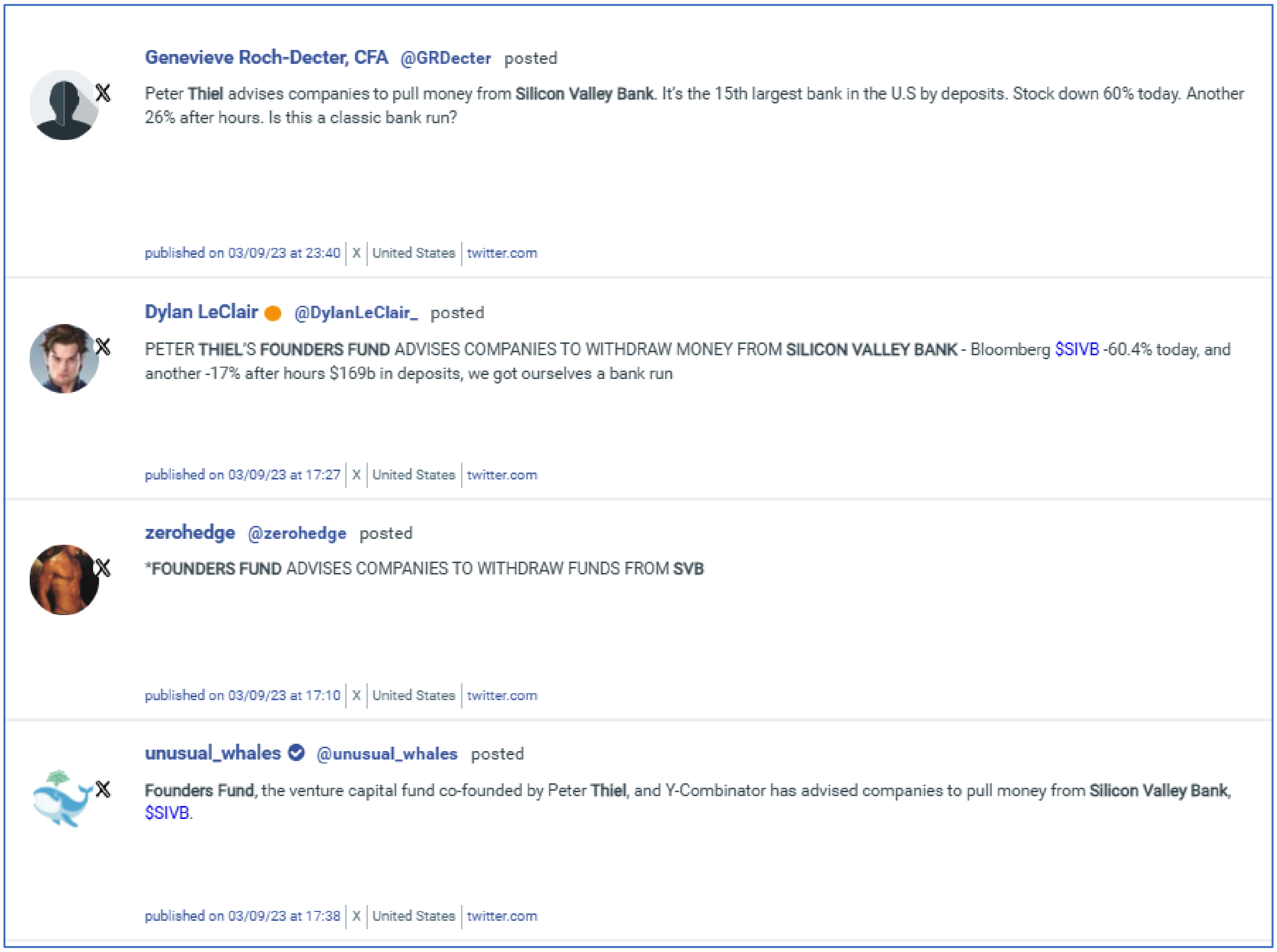


Notably, this theme does not follow the same broader pattern of Run Period tweets. Unlike the total sample of Run Period tweets – which only begins its growth on March 9 and starts experiencing exponential vertical growth in volume on March 10 – the Peter Thiel subtheme of Tweets peaks between 5:00 and 6:00 PM on March 9, and then tapers off, as displayed in the hourly graphic below:

Figure 3.3 – Hourly Display of Thiel Related Subtheme Tweets



A manual review of the tweets fitting this theme indicates that all the posts about Thiel or the Founders Fund relate to news that Thiel had advised startups he had invested in to pull their money out of SVB. See images below:



Genevieve Roch-Decter, CFA @GRDecter posted

Peter **Thiel** advises companies to pull money from **Silicon Valley Bank**. It's the 15th largest bank in the U.S by deposits. Stock down 60% today. Another 26% after hours. Is this a classic bank run?

published on 03/09/23 at 23:40 | X | United States | twitter.com

Dylan LeClair @DylanLeClair_ posted

PETER **THIEL**'S **FOUNDERS FUND** ADVISES COMPANIES TO WITHDRAW MONEY FROM **SILICON VALLEY BANK** - Bloomberg $SIVB -60.4% today, and another -17% after hours $169b in deposits, we got ourselves a bank run

published on 03/09/23 at 17:27 | X | United States | twitter.com

zerohedge @zerohedge posted

***FOUNDERS FUND** ADVISES COMPANIES TO WITHDRAW FUNDS FROM **SVB**

published on 03/09/23 at 17:10 | X | United States | twitter.com

unusual_whales @unusual_whales posted

Founders Fund, the venture capital fund co-founded by Peter **Thiel**, and Y-Combinator has advised companies to pull money from **Silicon Valley Bank**, $SIVB.

published on 03/09/23 at 17:38 | X | United States | twitter.com

CRA undertook research to identify the first tweets referencing Theil and the Founder's Fund and create a chronology of events.

At 5:08 PM ET on March 9, Graham Starr tweeted out the headline, "Founder's Fund advises companies to withdraw funds from Silicon Valley Bank." At the time, Graham Starr was the Global Business Editor for *Bloomberg*.[80] The post garnered 29.7K views.

[80] https://www.bloomberg.com/authors/AV8L6ouGu4Y/graham-starr

[81]

Two minutes later, at 5:10 PM ZeroHedge – a news aggregator service – tweets out a variation of the same phrase, to a significantly larger Twitter audience of 334.3K views.

As discussed above, *Bloomberg* published its “Peter Thiel’s Founders Fund Advises Companies to Withdraw Money From SVB” article at 5:11 PM.[82] CRA notes that the article may have been pushed out on its Bloomberg News Terminal or through news wire services shortly before being published online.

---

[81] https://x.com/GrahamStarr/status/1633953043883466752

[82] https://www.bloomberg.com/news/articles/2023-03-09/founders-fund-advises-companies-to-withdraw-money-from-svb?utm_source=twitter&utm_medium=social&utm_campaign=socialflow-organic&cmpid=socialflow-twitter-business&utm_content=business. Note that this article was subsequently re-titled to “SVB Races to Avoid Bank Run as Funds Advise Pulling Cash.”

Between 5:10 PM and 5:16 PM, 27 different Twitter users re-tweeted ZeroHedge's tweet, or reposted the same headline.

At 5:16 PM, the *Bloomberg* Twitter account also posted a breaking news tweet to its article, with 160,000 views:

[83]

Within the next hour (by 6:16 PM) an additional 338 Twitter posts are identified either re-tweeting or re-posting news about the Founder's Fund and Peter Thiel.

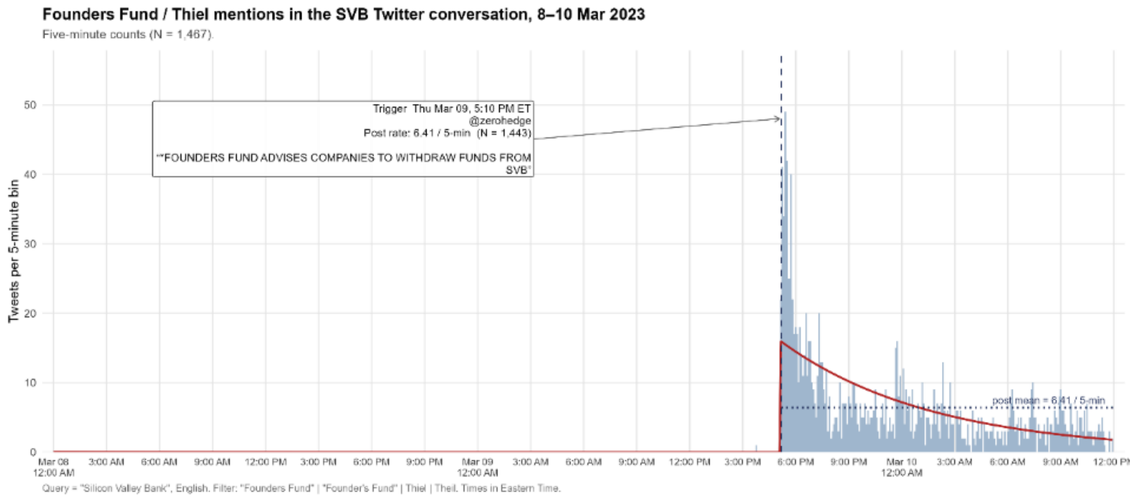
Based on the above chronology, the *Bloomberg* reporting about Peter Thiel – which was broadcast on Twitter by additional accounts including Bloomberg editor Graham Starr, ZeroHedge, and Bloomberg's own Twitter accounts – drove the conversational spike about Peter Thiel. While social media amplified this theme, the news originated from a traditional news media outlet.

This conclusion is supported by the quantitative analysis on these tweets discussed below.

[83] https://x.com/business/status/1633955010487926784

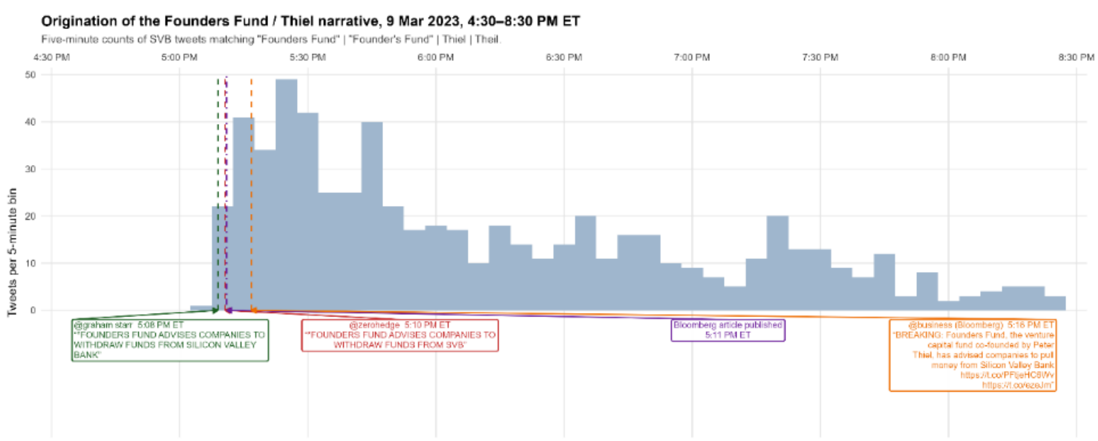
Quantitative Analysis on Thiel Related Tweets

Figure 10.1 – Number of Tweets related to "Founders Fund" and SVB between March 8 and Bank Closure.



In the 60 hours before SVB's failure, we collected every tweet mentioning 'Founders Fund,' 'Peter Thiel,' and common misspellings of both. As Figure 4 shows, posts on these themes were already rising steadily — but one post stood out: a 5:10pm ET ZeroHedge tweet produced a sharp, discrete jump in volume that was far larger than the underlying trend would predict.[84] This makes it the most logical candidate for the post that triggered the cascade.

Figure 4.2 – Number of Tweets related to "Founders Fund" and SVB between 4:30 and 8:30pm ET on March 9.



[84] We searched Twitter posts mentioning "Founders Fund," "Peter Thiel," and common misspellings over the 60 hours preceding SVB's failure. Posts were aggregated into five-minute bins. A Poisson regression of bin counts on a linear time trend was estimated, and for each candidate tweet a likelihood-ratio test was conducted against the null of the trend alone. Figure [AA] identifies the 5:10pm ET ZeroHedge post as the trigger on the basis of the highest likelihood-ratio statistic.

Figure 4.2 zooms in to the four hours from 4:30pm to 8:30pm ET on March 9th.

- Bloomberg News reporter Graham Starr publishes a report at 5:09pm Eastern time;
- ZeroHedge republishes it one minute later to a much larger retail (non-institutional) audience;
- Bloomberg's own account posts at 5:16pm Eastern time.

From a near-zero baseline, tweet volume peaks within fifteen minutes, reaching 100 posts. Twitter served as a platform by which the Bloomberg scoop was broadcast to a depositor base capable of moving money quickly after hours; however, the informational content driving the run came from a traditional newsroom.

Additional Examples of Media Amplification

As in the case of the social media amplification related to *Bloomberg's* reporting on Thiel, CRA identified that the same pattern occurred with subthemes related to other marquee name VC funds. CRA applied the following text filter to the Run Period tweets to analyze instances of other VC funds being discussed in relation to advising portfolio company withdrawals from SVB.

```
"Y Combinator" OR COMBINATOR OR "Garry
Tan" OR "Andreessen Horowitz" OR "a16z"
OR "Union Square Ventures" OR "Coatue"
OR "Sequoia" OR "Founder Collective" OR
"David Sacks"
```

A manual review of a sampling of the results of this filter identified that tweets referencing Y Combinator or other VC funds followed almost the same identical pattern to those referencing Thiel.

For instance, the first identified Twitter references to **Y Combinator** advising founders to pull money out of SVB was published by the ZeroHedge Twitter account at 5:18 pm on March 9, 2023.[85] Numerous additional Twitter users subsequently re-tweeted or commented on this post. As indicated below, one of the comments notes that there was about to be a "bank run with big money at this bank."

[85] https://x.com/zerohedge/status/1633955566333890565


zerohedge @zerohedge

*Y COMBINATOR SAID TO ADVISE COMPANIES TO LIMIT SVB EXPOSURE

5:18 PM · Mar 9, 2023 · 235.2K Views

9 46 149 8

Relevant View quotes

Post your reply Reply

Der Heinrich @heinrichste · Mar 9, 2023
Aaaand it's gone...
4 2.7K

n0body @abilli0n · Mar 9, 2023
You're bout to see a bank run with big money at this bank. This could get wild.
1 3 1.8K

TwentyCapital @TwentyCapital · Mar 9, 2023
Breaking the buck
1 2.6K

Personable Markets @updownorneither · Mar 9, 2023
Source?
1 2K

Augustine Mark Patrickson @PatrickMAugust · Mar 9, 2023
*

Thanks for the heads up! We'll be sure to keep an eye on this and advise our clients accordingly.
39

By 5:38 PM ET, additional accounts had published tweets combining Founders Fund and Y-Combinator as having advised companies to pull money out of SVB, as illustrated below:


unusual_whales @unusual_whales Subscribe

Founders Fund, the venture capital fund co-founded by Peter Thiel, and Y-Combinator has advised companies to pull money from Silicon Valley Bank, $SIVB.

5:38 PM · Mar 9, 2023 · 214.1K Views

29 96 405 10

[86]

[86] https://x.com/unusual_whales/status/1633960429360930817

CRA also ran specific searches to identify the first identified Twitter reference to another VC firm, **Coatue,** advising its portfolio companies to withdraw funds. The first identified reference came from the financial news website *Axios*, which published an article by Dan Primack ("Primack") on its website at 5:29 PM ET on March 9, 2023, as discussed above, which indicated that Coatue had "suggested to some portfolio companies that they strongly consider pulling money out of SVB."[87]

One minute after this article was published, at 5:30 PM, Primack himself tweeted, "Several top VC firms, including Coatue and Founders Fund, today told some portfolio companies to seriously consider pulling $$ out of Silicon Valley Bank. Others report having trouble doing so," and included a link to the article, as depicted below.

[88]

Based on the above analysis, it appears that the general news about VC companies advising their founders and portfolio companies to withdraw funds from SVB did not originate on social media. In each instance examined by CRA, mentions of the names of specific VC companies (including The Founders Fund, USV, Y Combinator and Coatue) first appeared online in traditional news media articles authored by financial journalists and were then subsequently widely disseminated via social media accounts.

As discussed above, CRA's analysis determined that the news that VCs had advised portfolio companies to withdraw funds from SVB first began being published by traditional media sources between 3:00 and 5:00 PM EST on March 9, 2023 – and was then further amplified by social media profiles sharing the traditional news articles. By 7 pm EST, mainstream media publications had reported on the SVB news. CRA next sought to identify relevant social media content about VCs

[87] CRA notes that the article on the Axios website is not timestamped, however the page source data for this website includes a published date of 5:29 PM ET.
[88] https://x.com/danprimack/status/1633958448093347841

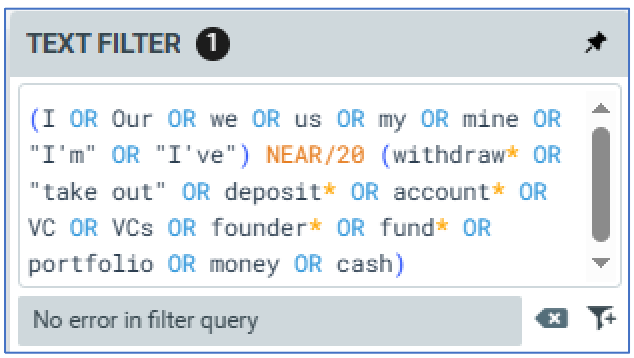
advising portfolio companies to withdraw funds from SVB which were posted prior to this information becoming public knowledge through traditional news sources.

Analysis of First-Person Posts During Run Period

Based on the analysis discussed above, CRA determined that by 7:00 PM EST on March 9, 2023, the news that VC funds had advised clients to withdraw funds from SVB had been widely disseminated through mainstream news publications (and this news had been amplified on social media).

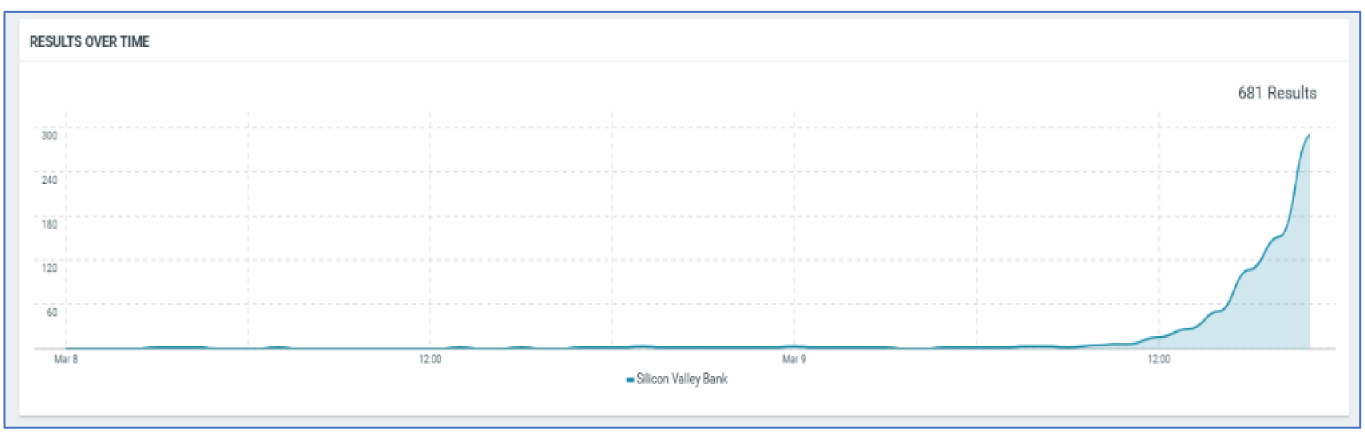
CRA then focused on analyzing the Run Period posts **prior to** 7:00 PM EST on March 9, 2023 to try to identify indications on social media of this trend, prior to it becoming common knowledge.

CRA created a text filter based on first-person pronouns to try to identify relevant posts within the Run Period tweet dataset which might have been published by authors with direct personal experience or exposure to SVB. The following filter was applied to the Run Period dataset and was further restricted to only include posts published between March 8, 2023 and 7:00 EST on March 9, 2023.



The filter and additional time restriction identified 681 Twitter results, displayed graphically below.

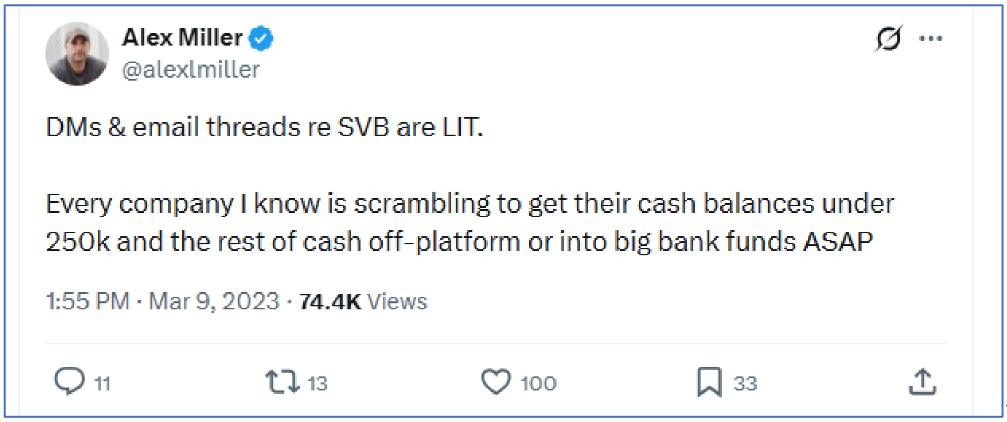
Figure 5.1 – First Person Posts During Run Period



A selection of these first-person perspective tweets was reviewed for relevancy and is presented below.

Examples of Startup Founders and VCs Discussing Withdrawing Money from SVB

This filter identified several relevant social media posts. A representative sampling of these is included below, in chronological order.



Alex Miller
@alexlmiller

DMs & email threads re SVB are LIT.

Every company I know is scrambling to get their cash balances under 250k and the rest of cash off-platform or into big bank funds ASAP

1:55 PM · Mar 9, 2023 · **74.4K** Views

11 13 100 33

[89]

Howard Lerman
@howard

OK i am hearing from dozens of founders about what to do at SVB.

It's an all out bank run.

2:10 PM · Mar 9, 2023 · **204.9K** Views

17 70 199 21

[90]

Elana
@ItsElanaGold

Today we are moving our funds off SVB.

If you have any balances above $250k (the FDIC-insured limit) you might want to consider.

2:17 PM · Mar 9, 2023 · **48.4K** Views

8 15 74 3

[91]

89 https://x.com/alexlmiller/status/1633904253180968961
90 https://x.com/howard/status/1633908101534367746
91 https://x.com/ItsElanaGold/status/1633909967991508992

Collin Pham @collinjpham

Some of our investors have reached out and suggested we move money out of SVB if it's held there...

3:06 PM · Mar 9, 2023 · **959** Views

3 1 4 [92]

Max Cherney @chernandburn

"I got about 15 calls and emails this morning — a third of my portfolio," said Ryan Gilbert, founder of venture firm Launchpad Capital. $SIVB

bizjournals.com/sanfrancisco/n...

> **Fabricated Knowledge** @fabknowledge · Mar 9, 2023
> For all the semiconductor guys
>
> theres a meltdown happening at $SIVB and now likely a run on bank / melt down for most of the venture backed areas within bank funding
> ...

3:24 PM · Mar 9, 2023 · **3,366** Views [93]

Estelle Giraud @estellejgiraud

We have money in SVB, not a huge amount but we die as a company if there is a run and we lose this money.

3:46 PM · Mar 9, 2023 · **143** Views

1 1 [94]

[92] https://x.com/collinjpham/status/1633922226683518979
[93] https://x.com/chernandburn/status/1633926869816070144
[94] https://x.com/estellejgiraud/status/1633932262113959936


Stephen Hays @hazesyah

I moved money from one SVB account today to make sure I was below fdic limits - def worried

4:19 PM · Mar 9, 2023 · 361 Views

5

[95]


Evan Rosenfeld @evanrosenfeld

Scanned my startup chats.

Every startup is worried about SVB. Every neobank is trying to poach deposits.

At least one person reported a successful 7-figure wire out.

Evan Rosenfeld @evanrosenfeld · Mar 9, 2023

Silicon Valley Bank catered to VC firms and startups.

When a VC firm invested in a startup (sometimes with funds borrowed from SVB), the startup was heavily encouraged to deposit the funds with SVB.

...

4:25 PM · Mar 9, 2023 · 3,000 Views

3 5

[96]


Rasty Turek @synopsi

I got 4th email from a VC fund suggesting to move out money from SVB.

It's very sad, but this is now quite a lucrative short. If the bank ends up with $25B of losses, it will be acquired for just lower billions and even that if they can keep most of the deposits.

4:44 PM · Mar 9, 2023 · 8,535 Views

1 4 10

[97]

[95] https://x.com/hazesyah/status/1633940641372680197

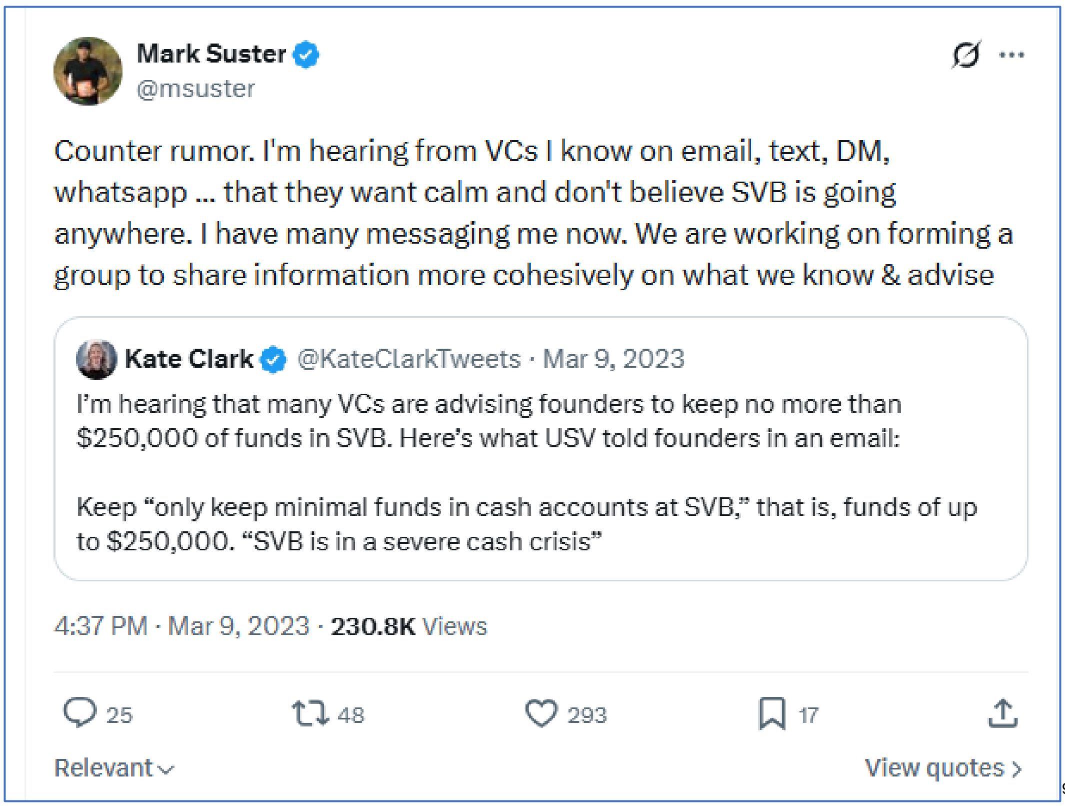
[96] https://x.com/evanrosenfeld/status/1633942115238526977

[97] https://x.com/synopsi/status/1633946981671505920

As illustrated by the posts depicted above, CRA did identify social media discourse indicating that VCs had widely advised startup founders to withdraw money from SVB, prior to this information being widely reported in mainstream news articles.

However, not all but many of the first-person perspective posts highlight the mechanism through which various VCs and Founders had communicated on March 9th, 2023-- which was via private channels (i.e. "DMs & email threads")-- to encourage each other to withdraw money from SVB. This communication and withdrawal advice coordination did not occur on social media – it was referenced on social media after the fact. The actual coordination appears to have occurred directly between VCs and founders through private methods such as emails, texts, phone calls and non-public group chats.

CRA also identified a "Counter Rumor" post, displayed below, which suggests that at least some VCs encouraged calm. This post below also references that the communication from VC's was "on email, text, DM, whatsapp…"


Mark Suster
@msuster

Counter rumor. I'm hearing from VCs I know on email, text, DM, whatsapp ... that they want calm and don't believe SVB is going anywhere. I have many messaging me now. We are working on forming a group to share information more cohesively on what we know & advise

Kate Clark @KateClarkTweets · Mar 9, 2023
I'm hearing that many VCs are advising founders to keep no more than $250,000 of funds in SVB. Here's what USV told founders in an email:

Keep "only keep minimal funds in cash accounts at SVB," that is, funds of up to $250,000. "SVB is in a severe cash crisis"

4:37 PM · Mar 9, 2023 · **230.8K** Views

25 48 293 17

Relevant

View quotes
[98]

Posts Discussing Technical Issues Withdrawing Money from SVB

Several posts were identified posted by people discussing technical issues logging into SVB accounts, or issues withdrawing funds from SVB. See examples below.

[98] https://x.com/MattyB/status/1634029845725208576

Martin Varsavsky
@martinvars

I can report that on our accounts SVB are operating normally. Payments being made without delays at this time.

5:05 PM · Mar 9, 2023 · **10.4K** Views

4 6 13

99

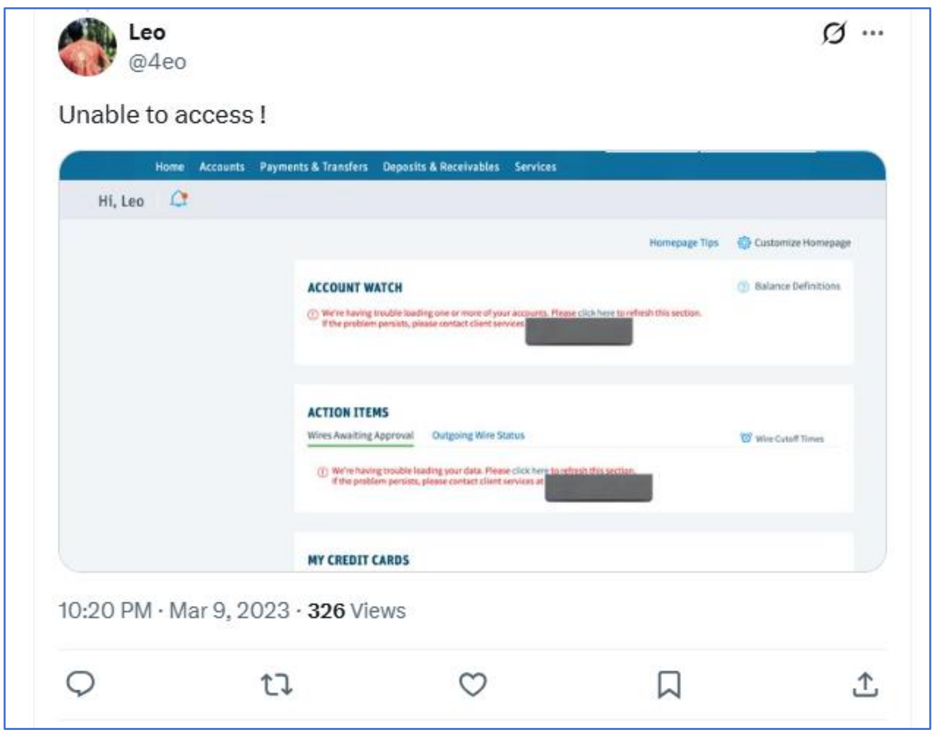
Meghan Conroy
@MeghanConroy10

@SVB_Financial won't log me into my account online or mobile app. Anyone else locked out? #svb #lockedout

5:14 PM · Mar 9, 2023 · **295** Views

1 2

100



Leo
@4eo

Unable to access !

10:20 PM · Mar 9, 2023 · **326** Views

101

[99] https://x.com/martinvars/status/1633952077951954944
[100] https://x.com/MeghanConroy10/status/1633954456541822977
[101] https://x.com/4eo/status/1634031540945719301

Posts Trying to Solicit Business from SVB's Customers

CRA identified several Twitter posts on March 9, 2023 authored by individuals who appear to be trying to solicit business from SVB's customers. Some representative examples of these are included below:


George D. Bousis
@GBousis

Founders working w/ SVB, happy to introduce you to our bankers at First Republic or JPM, who have always been amazing.

2:51 PM · Mar 9, 2023 · **2,023** Views

2

[102]


Jonathan Chang
@thechangj

FYI always recommend founders put their money in as many different places as they can in order to diversify their holdings.

Also for founders on SVB and looking to move off, happy to get you into @brexHQ.

We have $1M in FDIC insured for accounts. Dm me if interested!

Elana @ItsElanaGold · Mar 9, 2023
Today we are moving our funds off SVB.

If you have any balances above $250k (the FDIC-insured limit) you might want to consider.

2:28 PM · Mar 9, 2023 · **6,151** Views

[103]

102 https://x.com/GBousis/status/1633918463981899776

103 https://x.com/thechangj/status/1633912727348584455


Lisa
@lisas8_

Hey guys, for companies looking to move off Silicon Valley Bank, my company can open an account for your company with @BNYMellon Pershing TODAY. DM me or email me at lisa@every.io

We're already transferring for several YC seed->series B companies.

Jamie Quint @jamiequint · Mar 8, 2023
Looks like Silicon Valley Bank is in some deep shit.

They just announced they sold nearly 80% of their AFS securities at a $1.8bn loss and are raising another $1.75bn via stock sale. Stock is down over 15% after hours. ...

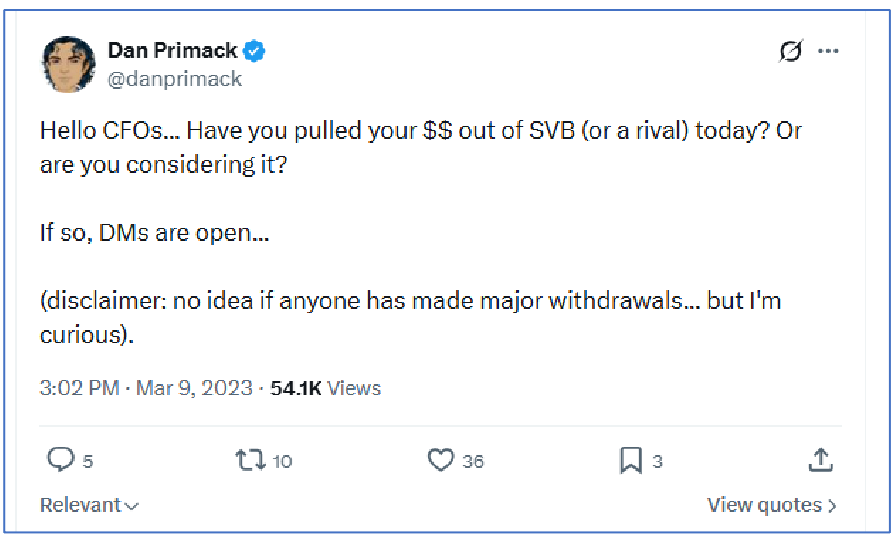
4:02 PM · Mar 9, 2023 · **6,763** Views

1 9

[104]

Posts By Journalists Soliciting Sources

CRA also identified posts by financial journalists – including by ones referenced above – trying to solicit sources and firsthand accounts. Some representative examples of such posts are included below:


Dan Primack
@danprimack

Hello CFOs... Have you pulled your $$ out of SVB (or a rival) today? Or are you considering it?

If so, DMs are open...

(disclaimer: no idea if anyone has made major withdrawals... but I'm curious).

3:02 PM · Mar 9, 2023 · **54.1K** Views

5 10 36 3

Relevant

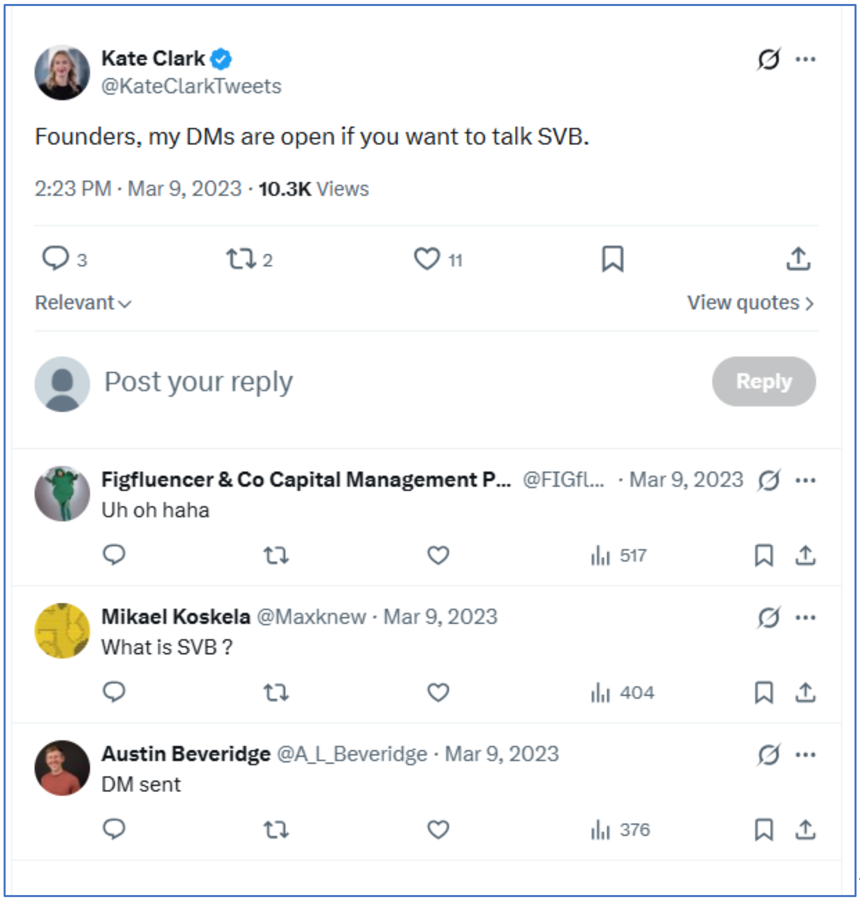
View quotes

[105]

---

[104] https://x.com/lisas8_/status/1633936238582599680

[105] https://x.com/danprimack/status/1633921158935629825



[106]

Note that the timestamps of both of the journalists' posts depicted above are prior to the articles being published by them. It is unclear whether these journalists were able to connect with sources for their articles through social media.

Based on this analysis, the social media conversation during the day on March 9, 2023 referenced and was influenced by the withdrawal conversations which were occurring privately between VC funds and their portfolio companies, through private communication channels. This behind-the-scenes coordination was then reported on by traditional financial journalists and further amplified by social media and traditional news media.

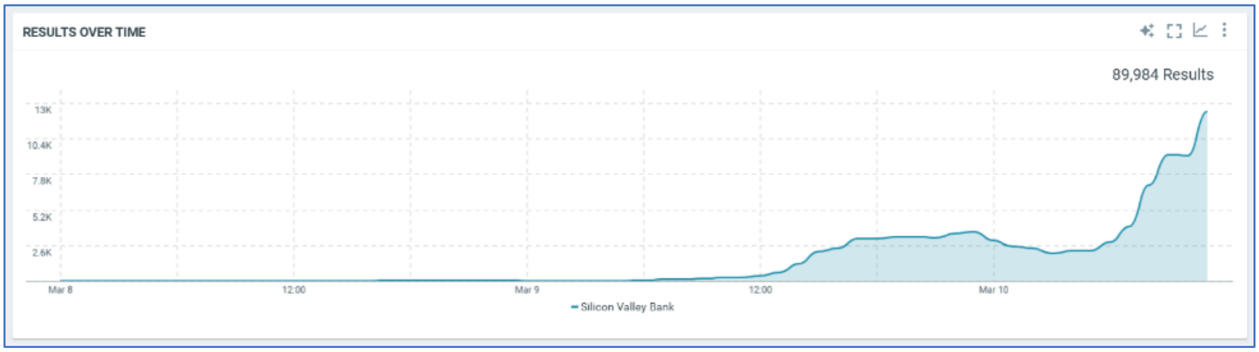
[106] https://x.com/KateClarkTweets/status/1633911326929203200

Additional Subthemes Analyzed by CRA

CRA notes that the tweets referenced above about VC funds advising portfolio companies to withdraw funds from SVB (all the posts most directly related to the bank run itself) account for a small subset of the overall social media discourse discussing the bank during the Run Period.

As discussed previously, CRA identified 89,984 tweets referencing SVB during the Run Period (displayed graphically below), of which only 681 (or approximately 0.75%) were flagged by the First-Person Pronoun filter, discussed above.[107] In other words: **most of the social media posts about SVB during the Run Period were not authored by individuals with firsthand knowledge or insight. Instead, the majority of social media discourse related to SVB during the run period concerned its stock performance or broader mainstream news of the run on the bank.**

Figure 11.1 – Volume of Run Period Tweets



CRA attempted to analyze this discourse by breaking it into distinctive and illustrative subthemes, as discussed below.

Methodology for Subtheme Identification

As discussed above, CRA analyzed the ~90,000 English-language Run Period tweets about SVB by grouping them into related subthemes.

Subthemes within the Twitter dataset were identified through a structured, multi-stage process combining quantitative keyword extraction with AI-assisted thematic clustering. First, the raw Twitter export of all the English-language tweets referencing SVB during the bank run period was processed to generate two complementary keyword frequency spreadsheets:

1) An entity dictionary capturing the frequency of named entities (companies, individuals, institutions, and financial instruments) identified through entity recognition against a curated dictionary of relevant terms, and

[107] CRA further notes that a manual sampling and review identified that many of the posts identified by the First-Person Pronouns filter were false positives, joke posts or not actually relevant to the analysis, so the true volume of relevant posts from people with firsthand knowledge of withdrawals or withdrawal advice related to SVB is a significantly smaller subset of the overall Run Period dataset.

2) A capitalized n-gram frequency file capturing multi-word capitalized phrases appearing at or above a minimum frequency threshold, which surfaced recurring slogans, headlines, and verbatim phrasings that entity recognition alone would miss.

Together, these two files provided both a structured view of what was being discussed and by whom, and an unstructured view of how the conversation was being framed in users' own words. These spreadsheets were then provided to a large language model, which was directed to review the full keyword landscape and identify clusters of co-occurring terms that appeared to represent coherent narrative threads within the broader SVB conversation. The model was instructed to filter out three categories of noise before clustering:

1) Generic SVB-identifying terms that defined the dataset's baseline scope,
2) False-positive matches arising from unrelated uses of the "SVB" acronym (such as airport codes, sports sponsorships, and entertainment tags), and
3) Trivially generic news-cycle phrasing (such as “breaking news”)

The remaining keywords were then grouped into candidate sub-themes based on semantic relatedness, shared narrative framing, and likely co-occurrence within individual tweets. CRA then created Boolean search strings based on each identified subtheme and applied them to the Twitter data set.

A sampling review was then undertaken on each subtheme to identify noteworthy or relevant posts.

Analysis of Additional Subthemes within Run Period Tweets

The sections presented below represent significant subthemes identified within the Run Period dataset.

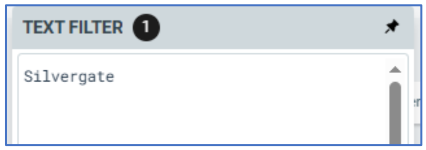
Not all the subthemes suggested by the LLM analysis are included below.

As illustrated by the representative examples included below, **the majority of social media posts related to SVB during the bank run period concerned tangential subthemes as opposed to being directly related to the bank run itself.**

Silvergate Subtheme

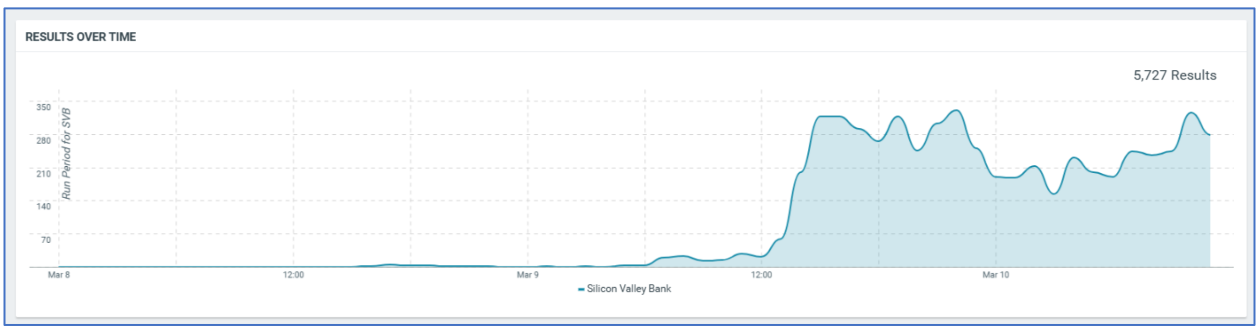
The LLM review identified "Silvergate" as a significant subtheme within the broader Run Period tweets about SVB. CRA notes that Silvergate Bank announced its voluntary liquidation on March 8, 2023.[108]

CRA applied the following text filter to all the Run Period tweets:



This filter identified 5,727 results referencing Silvergate during the SVB run period, as depicted in the graphic below. Approximately 6.36% of the total volume of social media posts during the Run Period reference Silvergate.

Figure 6.1 – Silvergate Subtheme



A manual review of a sampling of these results identified a common thread of individuals speculating about the possibility of a broader financial downturn and pointing to the run on SVB the day after Silvergate's liquidation as evidence of this. Some representative examples of tweets matching this theme are included below. Note that the examples selected below for inclusion are not comprehensive of all relevant social media posts for any of the subthemes discussed above or below.

[108] https://dfpi.ca.gov/press_release/dfpi-statement-silvergate-bank-to-begin-voluntary-liquidation/

Gold Telegraph @GoldTelegraph_

Yesterday, Silvergate got destroyed.

Today it is Silicon Valley Bank.

Hold on tight, folks.

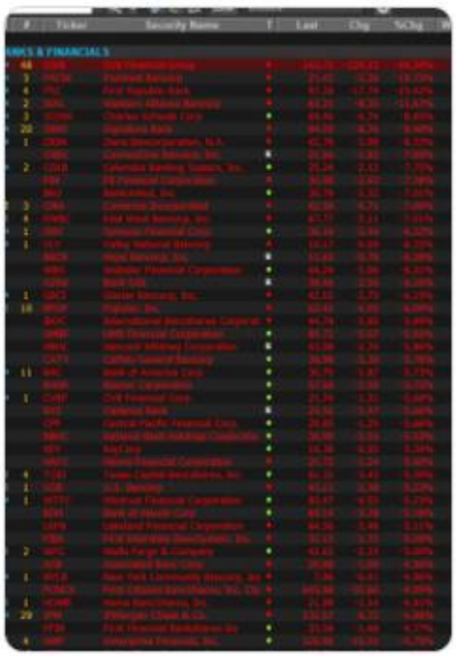
7:44 PM · Mar 9, 2023 · **209.1K** Views

41 413 1.8K 17

Relevant View quotes [109]

Brian Sullivan @SullyCNBC

Banks crushed today .. contagion fears ramping .. Silicon Valley Bank ($SVB) the catalyst today .. Silvergate yesterday. not a good sign.



1:08 PM · Mar 9, 2023 · **2.3M** Views

339 2.2K 5.3K 383 [110]

[109] https://x.com/GoldTelegraph_/status/1633992221258297344

[110] https://x.com/SullyCNBC/status/1633892528226172928

Grit Capital
@Grit_Capital

Bank stocks today:

Silicon Valley Bank -60%
Silvergate -42%
JP Morgan -5.4%
Bank of America -6.2%
Wells Fargo -6.1%

Welcome back to 2008.

4:59 PM · Mar 9, 2023 · 217.5K Views

36 229 1.3K 42 [111]

Michaël van de Poppe
@CryptoMichNL
Subscribe

First it was Silvergate, then Silicon Valley Bank and now First Republic Bank.

All sinking massively on the markets.

It's 2008 all over again.

9:27 AM · Mar 10, 2023 · 160.2K Views

73 100 865 14 [112]

Michaël van de Poppe
@CryptoMichNL
Subscribe

Second bank in a week potentially collapsing.

First, Silvergate looking to liquidate.

Now, Silicon Valley Bank dropping 61%.

The economy is not looking great, yet, Powell wants to continue and accelerate the hikes.

3:02 PM · Mar 9, 2023 · 114.6K Views

41 65 535 10 [113]

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[111] https://x.com/Grit_Capital/status/1633950560914141184
[112] https://x.com/CryptoMichNL/status/1634199284202590209
[113] https://x.com/CryptoMichNL/status/1633921184617168897

The Wolf Of All Streets
@scottmelker

Silvergate Bank going under is bad.

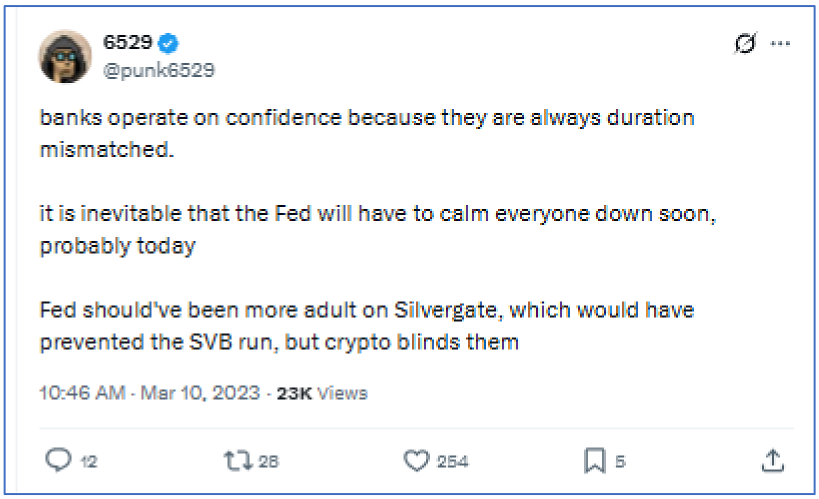
Silicon Valley Bank going under would be exponentially worse.

Let's hope that doesn't happen.

8:40 PM · Mar 9, 2023 · 119.2K Views

49 30 443 8

[114]



6529
@punk6529

banks operate on confidence because they are always duration mismatched.

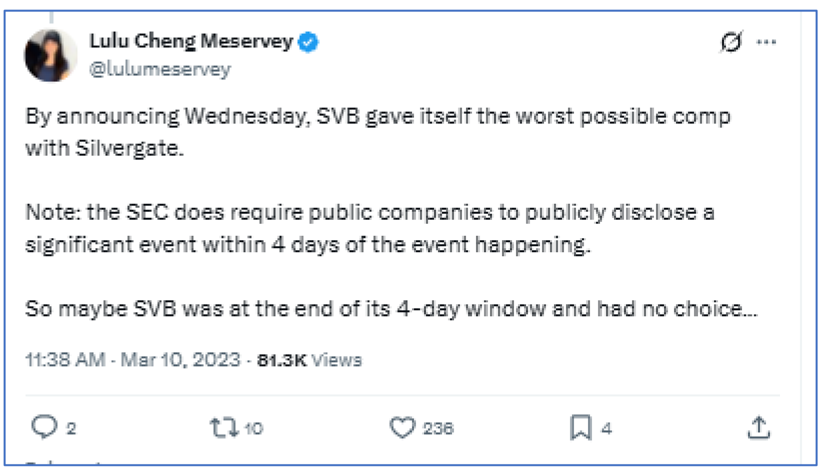
it is inevitable that the Fed will have to calm everyone down soon, probably today

Fed should've been more adult on Silvergate, which would have prevented the SVB run, but crypto blinds them

10:46 AM · Mar 10, 2023 · 23K Views

12 28 254 5

[115]



Lulu Cheng Meservey
@lulumeservey

By announcing Wednesday, SVB gave itself the worst possible comp with Silvergate.

Note: the SEC does require public companies to publicly disclose a significant event within 4 days of the event happening.

So maybe SVB was at the end of its 4-day window and had no choice...

11:38 AM · Mar 10, 2023 · 81.3K Views

2 10 236 4

[116]

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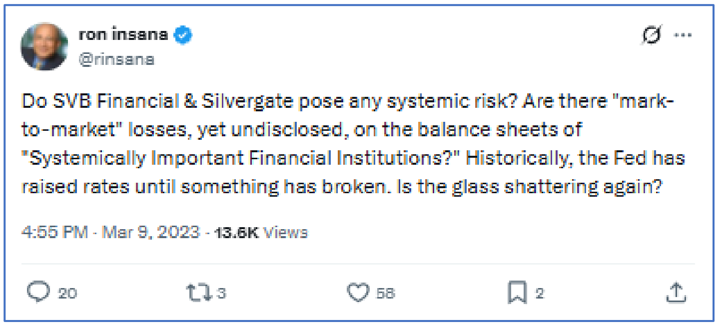
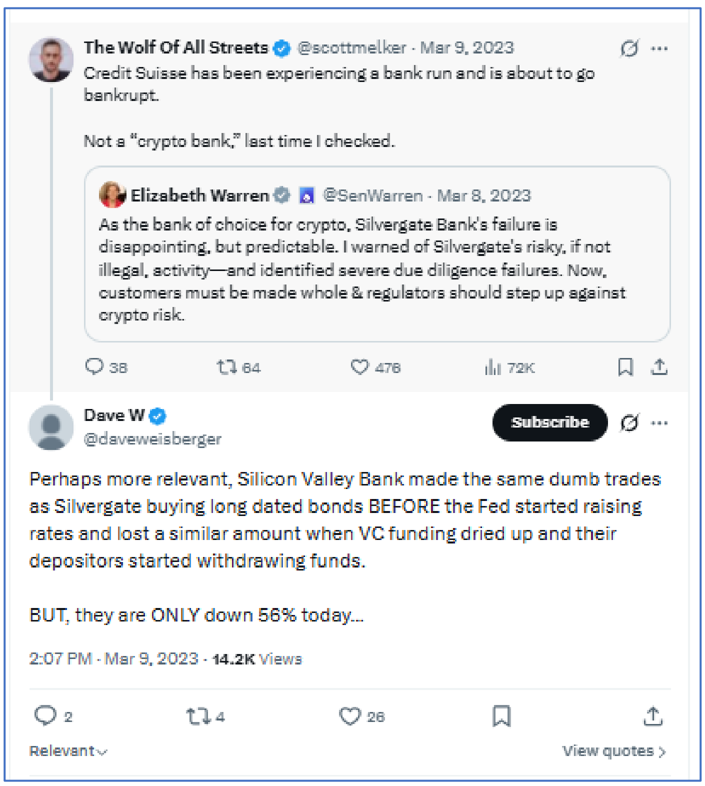
114 https://x.com/scottmelker/status/1634006239800688643
115 https://x.com/punk6529/status/1634219104096731143
116 https://x.com/lulumeservey/status/1634232348727230475

[117]



[118]



[119]

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[117] https://x.com/fomocapdao/status/1634178988678742017
[118] https://x.com/rinsana/status/1633949552876179457
[119] https://x.com/daveweisberger/status/1633907462628622341

Brian O'Connor | Fractional C... @BrianFOCon... · Mar 10, 2023
Greg needs a change to keep SVB alive.

So he decides to build a safety net - cash

In 2 moves:
1) Sell some of their portfolio
2) Sell shares of SVB

Normally that wouldn't be a big deal

But they don't know that a business in San Diego is failing

And will take SVB down with it

1 4 58 45K

Brian O'Connor | Fractional CMO
@BrianFOConnor

That business is Silvergate Bank

One of the most important banks in crypto

But its biggest client just failed:
FTX

The FTX crash caused customers to pull $8B from Silvergate in January

So on March 8th, Silvergate closes its doors

The same day SVB announces its safety net...

8:31 AM · Mar 10, 2023 · **42.7K** Views [120]

John Kicklighter
@JohnKicklighter

The FTX fallout has taken out a few adjacent crypto players, forced the Silvergate liquidation, has caused existential crisis for SVB. What are the next rings out that we should be watching?

This is the kind of scenario for which regulators have warned they must monitor defi

10:43 AM · Mar 10, 2023 · **1,878** Views

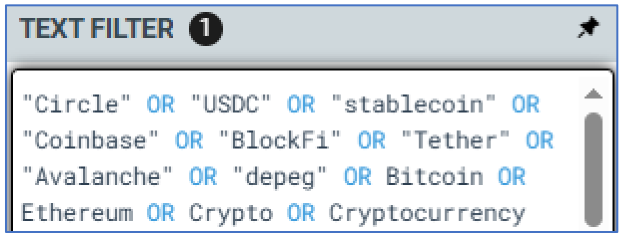
2 1 14 [121]

[120] https://x.com/BrianFOConnor/status/1634185100169445379
[121] https://x.com/JohnKicklighter/status/1634218435595870213

Further research into social media related to Silvergate Bank and its liquidation can be conducted upon request.

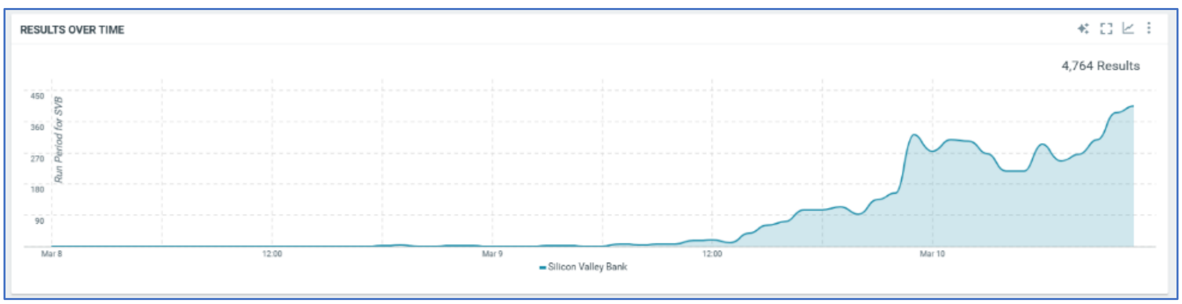
Cryptocurrency Subtheme

Another subtheme identified during the run-period was tweets referencing cryptocurrency. The following filter was applied to the Run Period tweets.



This filter identified 4,764 results related to the crypto industry during the SVB run period, as depicted in the graphic below. Approximately 5.2% of the total volume of social media posts during the Run Period reference the cryptocurrency subtheme.

Figure 6.2 – Cryptocurrency Subtheme



A manual review of a sampling of these results identified a common thread of individuals (who largely appear to be crypto investors, proponents, or enthusiasts) posting about SVB bank's stock price decline possibly having a negative effect on the crypto industry. Some representative examples of tweets matching this theme are included below:

A.J. Button
@AJButton2

>I'm doing some stock reading tonight
>Look into the Silicon Valley Bank clusterf*ck
>"hmmmmmm I wonder what they are invested in to be suffering this way"
>Check their 13F
>SINGLE BIGGEST STOCK HOLDING IS FRICKEN COINBASE ($COIN).

The absolute mad lads.
$SIVB

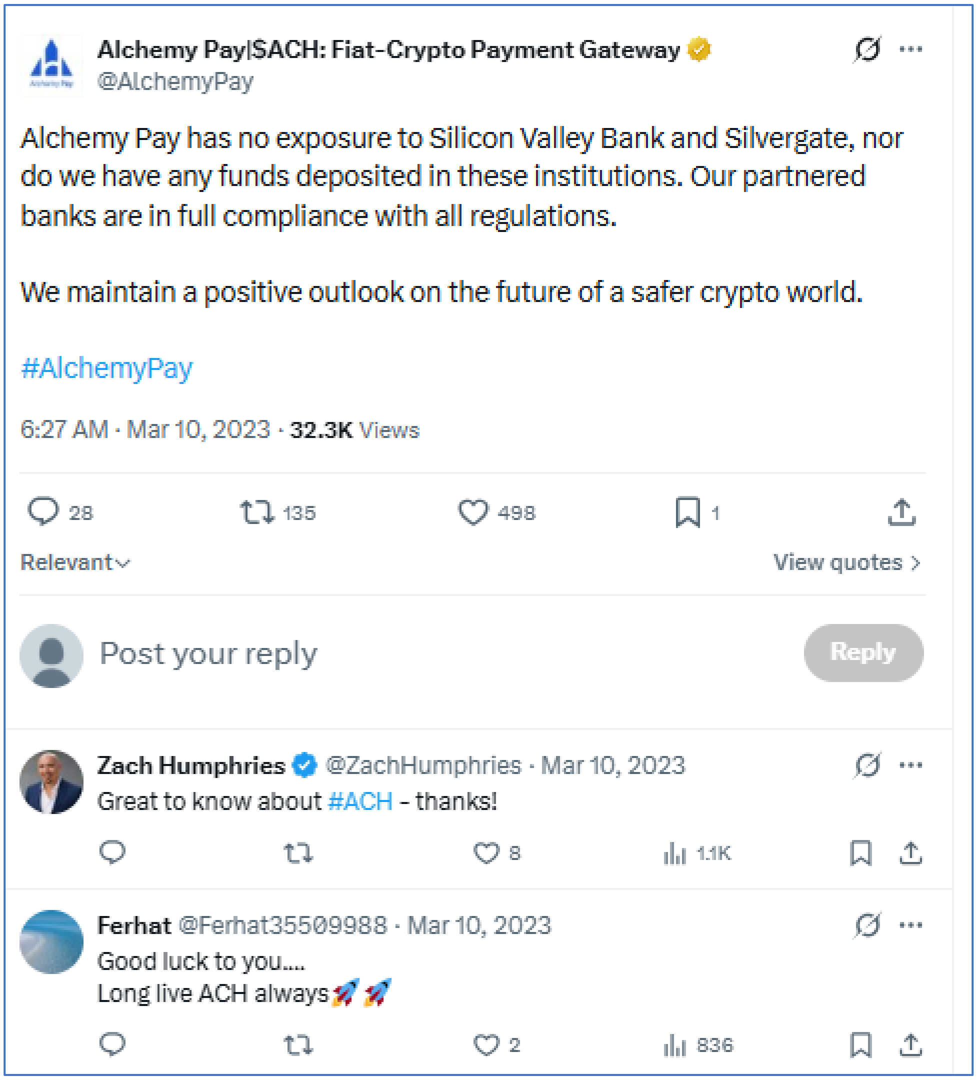
GREENLIGHT BIOSCIENCES HLDS P	COM	39536G105	-	20,001
MONEYLION INC	CL A	60938K106	-	46,235
NOGIN INC	COM	65528N105	-	326,793
OWLET INC	COM CL A	69120X107	-	492,823
WAG GROUP CO	COM	93042P109	-	130,167
TEMPO AUTOMATION HOLDINGS IN	COM	88024M108	-	16,282
SELINA HOSPITALITY PLC	ORD SHS	G8059B101	-	136,088
OKTA INC	CL A	679295105	-	7,653,780
ROOT INC	CL A	77664L207	-	3,515,724
COINBASE GLOBAL INC	COM CL A	19260Q107	-	14,402,774
AXSOME THERAPEUTICS INC	COM	05464T104	-	2,610,773
PACIFIC BIOSCIENCES CALIF IN	COM	69404D108	-	83,837
PLANET LABS PBC	COM CL A	72703X106	-	748,622
ROVER GROUP INC	COM CL A	77936F103	-	387,310
SKILLZ INC	COM	83067L109	-	138,749
GROVE COLLAB HOLD INC	COM CL A	39957D102	-	11,699
ALLOVIR INC	COM	019818103	-	220,687
CAREMAX INC	COM CL A	14171W103	-	1,095,000
CARIBOU BIOSCIENCES INC	COM	142038108	-	295,480
CULLINAN ONCOLOGY INC	COM	230031106	-	285,188
DICE THERAPEUTICS INC	COM	23345J104	-	1,321,570

9:30 PM · Mar 9, 2023 · **31.9K** Views

8 27 83 10

[122]

[122] https://x.com/AJButton2/status/1634018971522351104



[123]

Additionally, several other Twitter posts were identified using the collapse of SVB to argue that cryptocurrency is a safer or better investment than traditional financial models. CRA notes that many of these tweets appear to be almost gleeful in tone in relation to the collapse of SVB, as demonstrated by the representative examples illustrated below:

[123] https://x.com/AlchemyPay/status/1634153923450748930

Coin Bureau
@coinbureau

Silicon Valley Bank is facing a run. Now that the regulators and politicians can't blame it on crypto, I wonder how quickly they will jump to save it 🤔

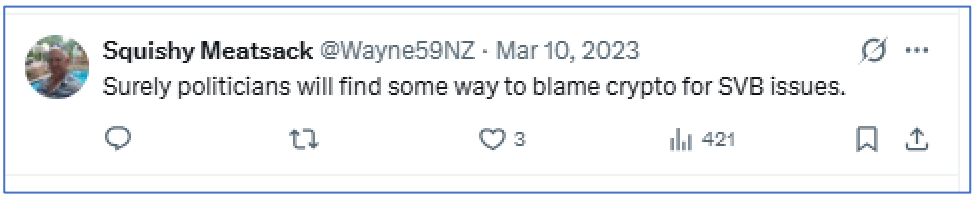
$SIVB

2:28 AM · Mar 10, 2023 · **102.5K** Views

50 117 1K 4

Relevant View quotes

[124]



Squishy Meatsack @Wayne59NZ · Mar 10, 2023
Surely politicians will find some way to blame crypto for SVB issues.

3 421

[125]

Crypto Crib
@Crypto_Crib_

Silicon Valley Bank $SIVB shut down by California regulators.

#Bitcoin can't be shut down 😎

11:52 AM · Mar 10, 2023 · **11.2K** Views

5 5 60

[126]

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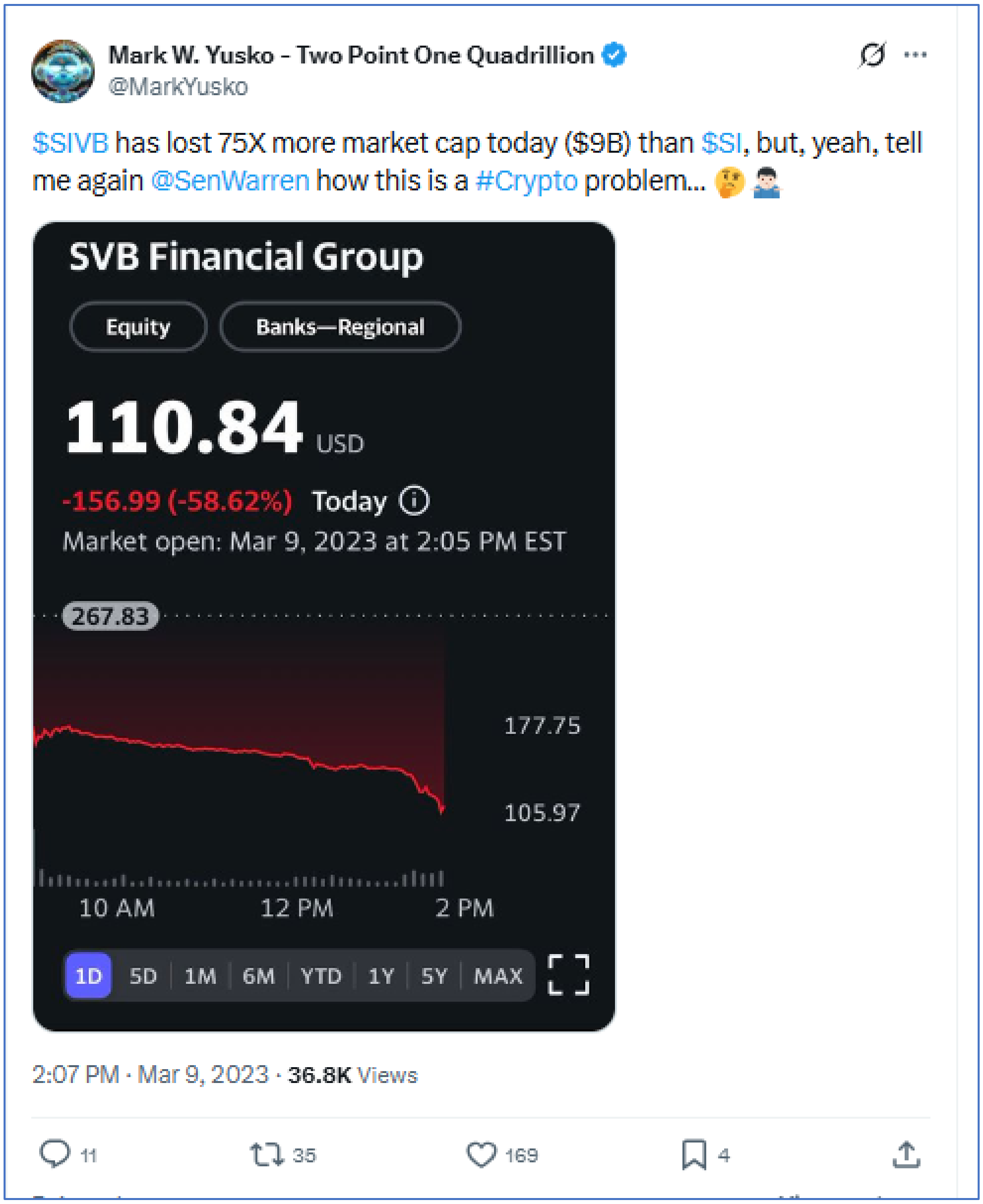
[124] https://x.com/coinbureau/status/1634093764875567105

[125] https://x.com/coinbureau/status/1634093764875567105

[126] https://x.com/Crypto_Crib_/status/1634235792489889808


Mark W. Yusko - Two Point One Quadrillion
@MarkYusko

$SIVB has lost 75X more market cap today ($9B) than $SI, but, yeah, tell me again @SenWarren how this is a #Crypto problem... 🤔🤷‍♂️

2:07 PM · Mar 9, 2023 · **36.8K** Views

11 35 169 4

[127]

127 https://x.com/MarkYusko/status/1633907460795711530

> **Alex Svanevik** @ASvanevik
>
> SVB shows that FTX has more in common with banks than with crypto.
>
> 9:39 AM · Mar 10, 2023 · **7,702** Views
>
> 1 12 110

[128]

> **Antonio García Martínez (agm.eth)** @antoniogm
>
> This little startup founder who got lazy with all the due diligence Silicon Valley Bank wanted around a crypto startup and just left the corporate accounts with @mercury and @coinbase is feeling pretty good right now.
>
> 11:16 AM · Mar 9, 2023 · **71.4K** Views
>
> 9 10 256 11

[129]

> **Mippo** @MikeIppolito_
>
> So Silvergate, SVB, and Credit Suisse are all getting ready to meet their maker.
>
> Almost like it isn't a crypto specific problem.
>
> Almost like, 0% interest rates force banks to make bad decisions 🤔
>
> 11:09 AM · Mar 9, 2023 · **35.1K** Views
>
> 17 36 220 10

[130]

---

[128] https://x.com/ASvanevik/status/1634202421554724867

[129] https://x.com/antoniogm/status/1633864256461619205

[130] https://x.com/MikeIppolito_/status/1633862479292817414

DECODEFI @decodeficrypto · Mar 9, 2023
Crypto is the canary in the coal mine. But they'll tell you it is the gunpowder
1 · 126 [131]

Mike Alfred
@mikealfred

Silicon Valley Bank didn't want to bank crypto companies because of the risk. But it's currently in dire straits due to the structure of its bond portfolio. Turns out there is real risk in traditional banking too.

6:26 PM · Mar 9, 2023 · **41.2K** Views

21 · 46 · 405 · 6

Relevant · View quotes

Only some accounts can reply.

Mike Alfred @mikealfred · Mar 10, 2023
SVB halted pre market for news 👀
3 · 4 · 23 · 12K

Mike Alfred @mikealfred · Mar 10, 2023
RIP SVB. Used them for 2 companies I founded and never had an issue. Sad story.
1 · 4 · 23 · 8.6K [132]

sam lessin 🏴‍☠️
@lessin
Subscribe

Any crypto holdouts in Silicon Valley banking with SVB waiting on wires out are reconsidering the benefits of always on decentralized digital money right about now.

8:41 PM · Mar 9, 2023 · **241.6K** Views

18 · 55 · 342 · 13 [133]

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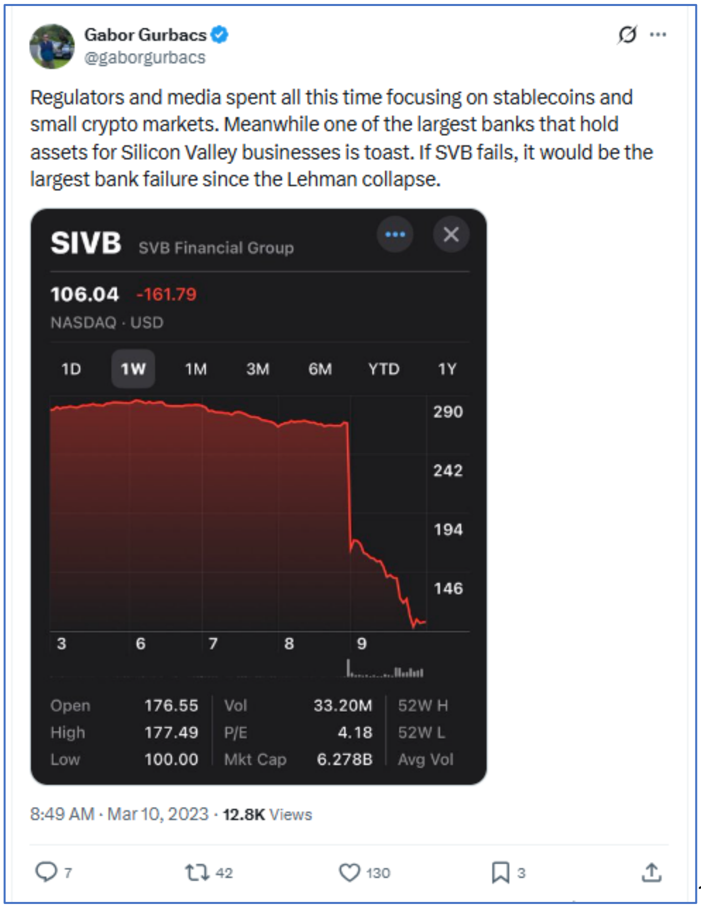
[131] https://x.com/MikeIppolito_/status/1633862479292817414
[132] https://x.com/mikealfred/status/1633972457228079104
[133] https://x.com/lessin/status/1634006546911997952

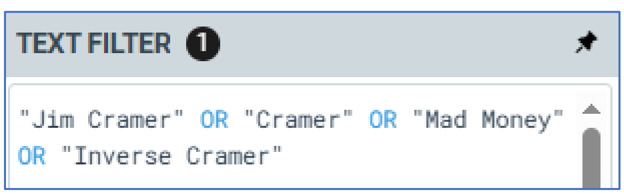


[134]

Further research into this subtheme can be conducted upon request.

Jim Cramer Subtheme

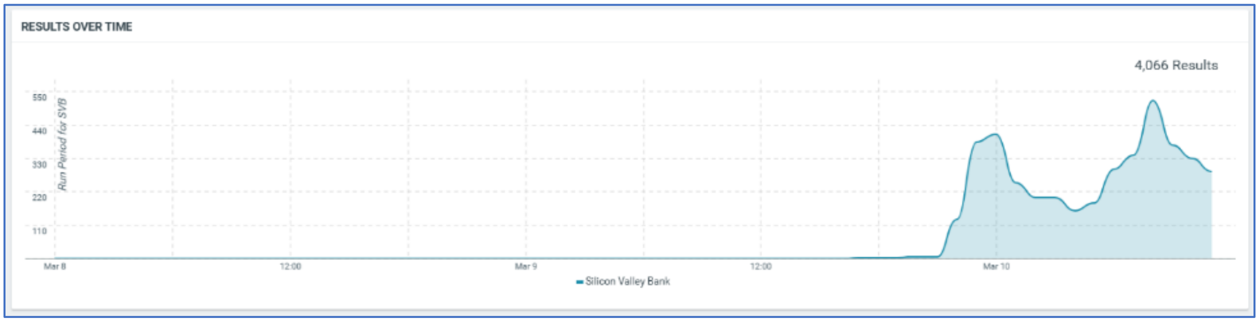
CRA identified more than 4,000 Twitter posts during the run period referencing Jim Cramer ("Cramer") or Mad Money. The filter used by CRA and the results graphic are depicted below.



CRA notes that approximately 4.5% of the total volume of Twitter activity during the Run Period relates to this Jim Cramer subtheme, as graphed below.

[134] https://x.com/gaborgurbacs/status/1634189624921735170

Figure 6.3 – Jim Cramer Subtheme



These tweets generally relate to the TV personality and CNBC's *Mad Money* host, Jim Cramer, who had recommended the SVB stock in February 2023. As with the cryptocurrency subtheme discussed above, many of these posts appear to be celebratory or gleeful in tone, as indicated by the representative examples below:

[135]

[135] https://x.com/StanphylCap/status/1634194084473520130

136

137

138

139

136 https://x.com/CramerTracker/status/1634237672997699602
137 https://x.com/WatcherGuru/status/1634039856924860416
138 https://x.com/Ben__Rickert/status/1634152276506865671
139 https://x.com/GavinClimie/status/1634089163728343041

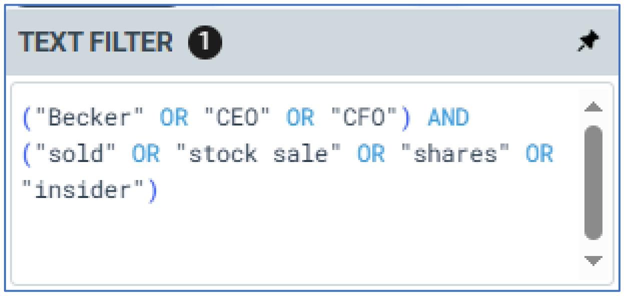
[140]

Further research into this subtheme can be conducted upon request.

[140] https://x.com/zerohedge/status/1634064271620333568

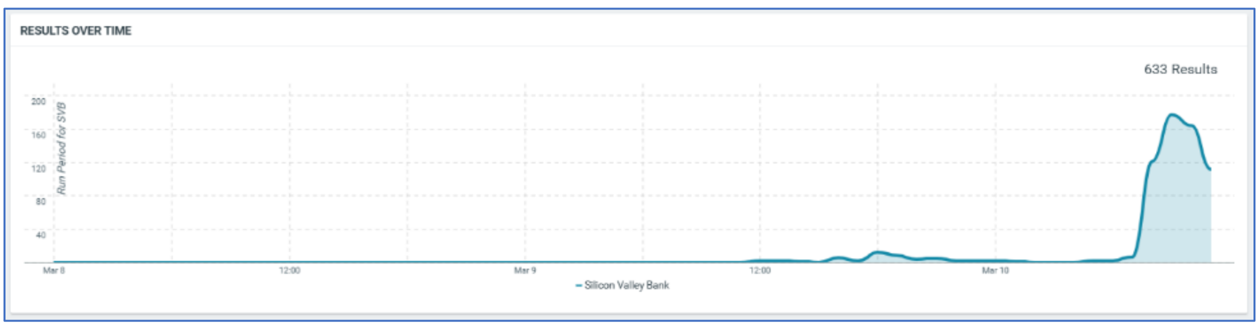
Greg Becker Insider Trading Subtheme

CRA identified an additional subtheme of individuals speculating about possible insider trading by SVB CEO Gregory Becker in the weeks leading up to the collapse. The following filter was applied to the Run Period tweets:



This filter identified 633 results (representing approximately 0.7% of the total volume of Run Period tweets) matching this subtheme. These tweets largely peak in the late morning of March 10, as illustrated below:

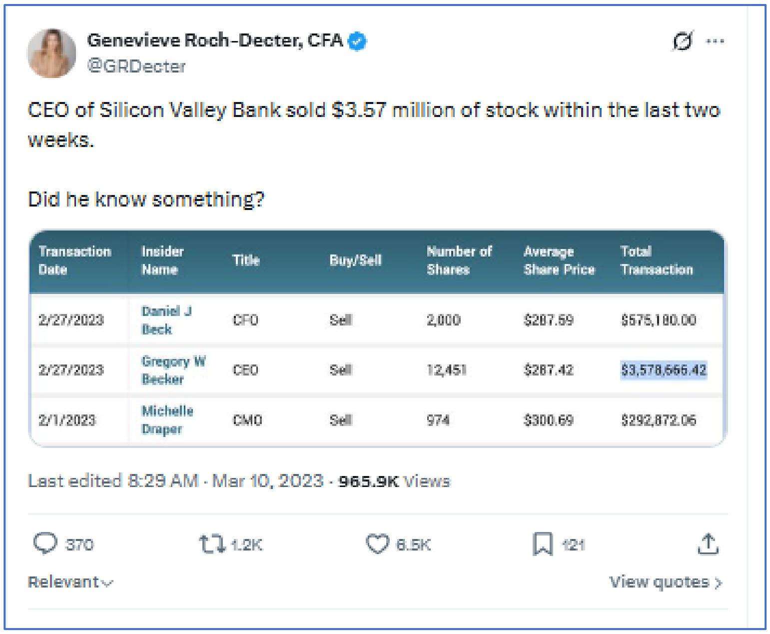
Figure 6.4 – Greg Becker Subtheme



Almost all of these tweets reiterate the same theme – that SEC disclosures revealed that SVB's CEO had sold millions in stock in the weeks preceding the bank's collapse. Representative examples of tweets from this subtheme are included below:

[141]

141 https://x.com/INArteCarloDoss/status/1634200135268806657



Genevieve Roch-Decter, CFA
@GRDecter

CEO of Silicon Valley Bank sold $3.57 million of stock within the last two weeks.

Did he know something?

Transaction Date	Insider Name	Title	Buy/Sell	Number of Shares	Average Share Price	Total Transaction
2/27/2023	Daniel J Beck	CFO	Sell	2,000	$287.59	$575,180.00
2/27/2023	Gregory W Becker	CEO	Sell	12,451	$287.42	$3,578,666.42
2/1/2023	Michelle Draper	CMO	Sell	974	$300.69	$292,872.06

Last edited 8:29 AM · Mar 10, 2023 · 965.9K Views

370 1.2K 6.5K 121

Relevant

View quotes

142

InvestorTurf
@InvestorTurf

CEO of Silicon Valley Bank sold $3.57 million of stock within the last two weeks.

Did he know something ?
$SIVB

9:45 AM · Mar 10, 2023 · 2,023 Views

4 4 44 1

Relevant

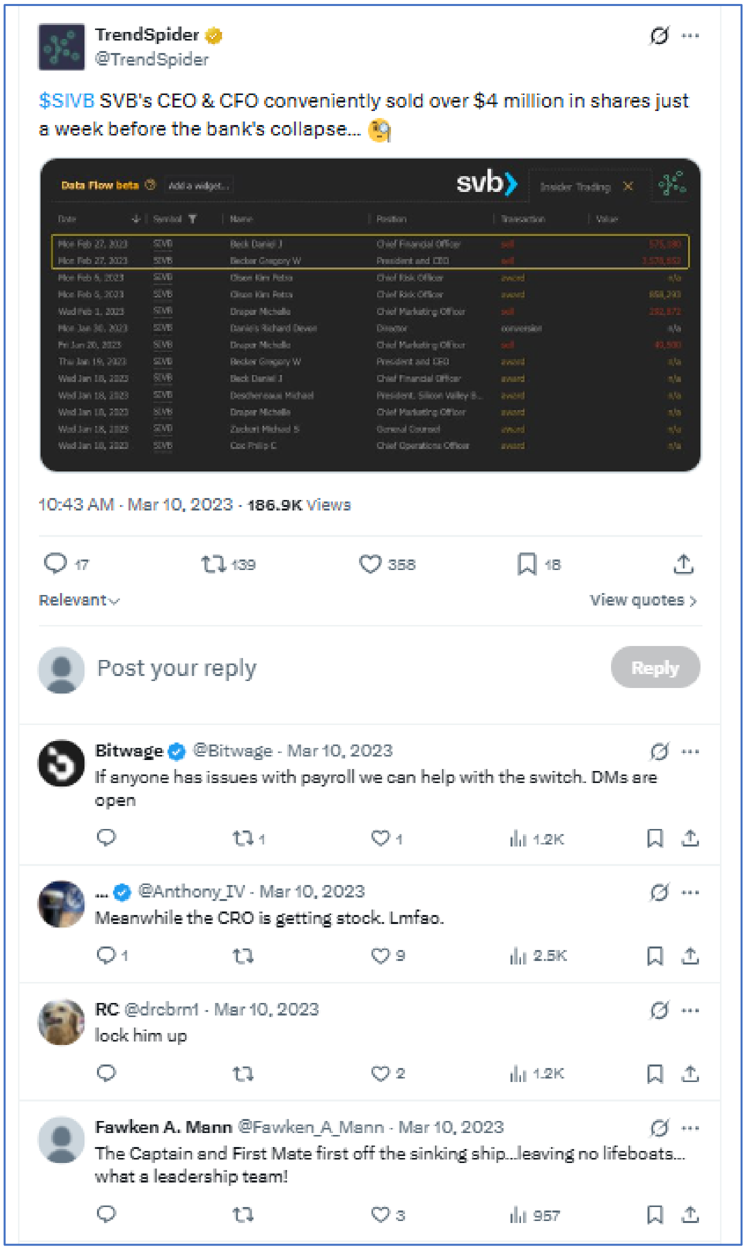
Post your reply

Reply

143

[142] https://x.com/GRDecter/status/1634184585843032066

[143] https://x.com/InvestorTurf/status/1634203775526158336



[144]

Further research into this subtheme can be conducted upon request.

<u>Other Possible Subthemes for Future Analysis</u>

The CRA team notes that the subthemes discussed above are not comprehensive of all the various subthemes that appear in the Run Period Twitter discourse.

Other potential subthemes on which future analysis could be conducted include:

[144] https://x.com/TrendSpider/status/1634218502490935298

- Twitter posts were identified comparing the failure of SVB to that of Lehman Brothers, referencing other bank issues (such as Silvergate bank) and discussing the possibility of a broader bank failure and financial crisis. Other tweets in response to this point out numerous differences between the situation at SVB and the 2008 Great Financial Collapse.

- Numerous posts were identified discussing the possibility of a bailout of SVB, as well as discussing investor Bill Ackman's March 9, 2023 tweet stating that "The failure of @SVB_Financial could destroy an important long-term driver of the economy as VC-backed companies rely on SVB for loans and holding their operating cash. If private capital can't provide a solution, a highly dilutive gov't preferred bailout should be considered."[145]

- Several posts were identified discussing Janet Yellen's response to the SVB issues and speculating on what actions regulators might – or might not – take in relation to SVB.

- Numerous politically charged tweets were identified discussing SVB as a "woke" bank and pointing to the SVB collapse as illustrative of the failure of "woke banking"; these tweets reference the bank's historical diversity, DEI or ESG initiatives as examples of placing "virtue signaling ahead of responsible banking."[146]

Further research into any of these subthemes can be conducted upon request.

Conclusion

In light of the significant volume of social media surrounding SVB at the time, it is understandable that official reviews and traditional news media could draw a conclusion that "social media fueled the run." Indeed over 3 million tweets were posted between October 1, 2022 and March 31, 2023, with 99% of that occurring in March alone. However, social media cannot be disentangled from traditional news media which often informs and is included in social media. This analysis of the social media commentary in tandem with mainstream news publications contextualizing the private communications between VC's and company founders with deposits at SVB, both of which were correlated to a detailed timeline of events, reveals that over 96% of the Twitter commentary relating to SVB was posted after the bank was taken over by regulators on March 10th. Only 2.9% of the total volume of Twitter activity about SVB occurred during the bank-run period, and a significant portion of that includes commentary that discussed topics other than withdrawal of funds from SVB.

The official accounts highlight SVB's "concentrated network of VC investors and technology firms who, fueled by social media, withdrew uninsured deposits in a coordinated manner at an

[145] https://x.com/BillAckman/status/1634028534107602944
[146] https://x.com/The_Real_Fly/status/1634039311141142528

unprecedented rate."[147] These accounts appear to be correct about the "concentrated network" and "coordinated manner," but that "coordination" of withdrawals from SVB appears from this analysis to have been first initiated via private communications that were outside of public view.

Amplification of concern regarding SVB, whether across social media or traditional news channels, trailed the earlier private communications about withdrawals. This is directly counter to the established public narrative that "social media fueled the run." It was "communication," writ large, that fueled the run, which has been true of every bank run in history.

[147] https://www.federalreserve.gov/publications/review-of-the-federal-reserves-supervision-and-regulation-of-silicon-valley-bank.htm

Analysis Limitations and Potential Next Steps

The CRA team's analysis was limited to examining publicly visible Twitter data; private communications (including emails, text messages, and DMs) between VCs and founders were not examined as part of the research. This private communication data may contain evidence of the "coordinated withdrawal advice" discussed above.

Additionally, this analysis was limited by a lack of SVB withdrawal request data. If CRA were to be provided with timestamped withdrawal request data which indicates the exact time that SVB customers had initiated withdrawal requests, CRA would be able to perform a more robust analysis, comparing the timestamps of social media posts against the timestamps on withdrawal requests. The hypothesis is that the withdrawal requests first began spiking before any discussion about it was identified on social media. However, direct withdrawal data would be necessary to confirm this.

The CRA team's research to date has focused exclusively on SVB. A similar social media analysis examining Silvergate Bank, Signature Bank, First Republic Bank, and related subthemes or other topics may yield noteworthy findings regarding the chronology of events and communications by and amongst VC's and bank customers, journalists and mainstream media, and social media. Additional research will be conducted upon request.

About Charles River Associates

Founded in 1965, Charles River Associates is a leading consulting firm that provides economic, financial, and strategy expertise. Headquartered in Boston, the firm has offices internationally. We use a combination of industry experience and rigorous, fact-based analysis to provide clients with clear, implementable solutions to complex business problems.

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