BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

MICHAEL S. BARR
VICE CHAIR FOR SUPERVISION

April 28, 2023

Re: Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank

Silicon Valley Bank (SVB) failed because of a textbook case of mismanagement by the bank. 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. And Federal Reserve supervisors failed to take forceful enough action, as detailed in the report.

Our banking system is sound and resilient, with strong capital and liquidity. And in some respects, SVB was an outlier because of the extent of its highly concentrated business model, interest rate risk, and high level of reliance on uninsured deposits; however, SVB's failure demonstrates that there are weaknesses in regulation and supervision that must be addressed. 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.

Following SVB's failure, we must strengthen the Federal Reserve's supervision and regulation based on what we have learned. This report represents the first step in that process—a self-assessment that takes an unflinching look at the conditions that led to the bank's failure, including the role of Federal Reserve supervision and regulation. Individuals who were not involved in the supervision of SVB conducted the review, and I oversaw it.

The four key takeaways of the report are:

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

Before discussing specific supervisory and regulatory changes that we should consider, I would like to touch on broader issues exposed by the failure of the bank.

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 media enabled depositors to instantly spread concerns about a bank run, and technology enabled immediate withdrawals of funding.

Second, as I have previously stated, a firm's distress may have systemic consequences through contagion—where concerns about one firm spread to other firms—even if the firm is not extremely large, highly connected to other financial counterparties, or involved in critical financial services.

Third, this experience has emphasized why strong bank capital matters. While the proximate cause of SVB's failure was a liquidity run, the underlying issue was concern about its solvency.

As risks in the financial system continue to evolve, we need to continuously evaluate our supervisory and regulatory framework and be humble about our ability to assess and identify new and emerging risks. That is why we need to bolster resiliency broadly in the financial system, and not focus solely on specific risk drivers. Some steps already in progress include the holistic review of our capital framework; implementation of the Basel III endgame rules; the use of multiple scenarios in stress testing; and a long-term debt rule to improve the resiliency and resolvability of large banks. We plan to seek comment on these proposals soon. Other possible steps based on what we have learned from the SVB report, SVB's failure, and its contagion, will follow later.

Stronger Supervisory Framework
Our first area of focus will be to improve the speed, force, and agility of supervision. As the report shows, in part because of the Federal Reserve's tailoring framework and the stance of supervisory policy, supervisors did not fully appreciate the extent of the bank's vulnerabilities, or take sufficient steps to ensure that the bank fixed its problems quickly enough.

In SVB's case, the firm's rapid growth but slow transition to heightened standards contributed to the slow identification of risks and slow pace of supervisor action. We need to evaluate how to ensure that supervision intensifies at the right pace as a firm grows in size or complexity.

Within our supervisory structure, we should introduce more continuity between the portfolios, so that as a bank grows in size and changes its supervisory portfolio, the bank will be ready to comply with heightened regulatory and supervisory standards more quickly, rather than providing a long transition to comply with those heightened standards.

We also need to be attentive to the particular risks that firms with rapid growth, concentrated business models, or other special factors might pose regardless of asset size. As I have previously announced, the Federal Reserve has begun to build a dedicated novel activity supervisory group to focus on the risks of novel activities (such as fintech or crypto activities) as a complement to existing supervisory teams. As we do so, we will identify whether there are other risk factors—such as high growth or concentration—that warrant additional supervisory attention.

Once issues are identified, they should be addressed more quickly, both by the bank and by supervisors. Today, for example, the Federal Reserve generally does not require additional capital or liquidity beyond regulatory requirements for a firm with inadequate capital planning, liquidity risk management, or governance and controls. We need to change that in appropriate cases. Higher capital or liquidity requirements can serve as an important safeguard until risk controls improve, and they can focus management's attention on the most critical issues. As a further example, limits on capital distributions or incentive compensation could be appropriate and effective in some cases.

We need to develop a culture that empowers supervisors to act in the face of uncertainty. In the case of SVB, supervisors delayed action to gather more evidence even as weaknesses were clear and growing. This meant that supervisors did not force SVB to fix its problems, even as those problems worsened.

Last, we need to guard against complacency. More than a decade of banking system stability and strong performance by banks of all sizes may have led bankers to be overconfident and supervisors to be too accepting. Supervisors should be encouraged to evaluate risks with rigor and consider a range of potential shocks and vulnerabilities, so that they think through the implications of tail events with severe consequences.

Stronger Regulatory Framework

Our second area of focus will be to raise the baseline for resilience. Our experience following SVB's failure demonstrated that it is appropriate to have stronger standards apply to a broader set of firms. As a result, we plan to revisit the tailoring framework, including to re-evaluate a range of rules for banks with $100 billion or more in assets.

In addition, let me go through some specific rules that should be modified or re-evaluated.

We need to evaluate how we supervise and regulate a bank's management of interest rate risk. While interest rate risk is a core risk of banking that is not new to banks or supervisors, SVB did not appropriately manage its interest rate risk, and supervisors did not force the bank to fix these issues quickly enough.

In addition, we are also going to evaluate how we supervise and regulate liquidity risk, starting with the risks of uninsured deposits. Liquidity requirements and models used by both banks and supervisors should better capture the liquidity risk of a firm's uninsured deposit base. For instance, we should re-evaluate the stability of uninsured deposits and the treatment of held to maturity securities in our standardized liquidity rules and in a firm's internal liquidity stress tests. We should also consider applying standardized liquidity requirements to a broader set of firms. Any adjustments to our liquidity rules would, of course, go through normal notice and comment rulemaking and have appropriate transition rules, and thus would not be effective for several years.

With respect to capital, we are going to evaluate how to improve our capital requirements in light of lessons learned from SVB. For instance, we should require a broader set of firms to take into account unrealized gains or losses on available-for-sale securities, so that a firm's capital requirements are better aligned with its financial positions and risk.

Again, these changes would not be effective for several years because of the standard notice and comment rulemaking process and would be accompanied by an appropriate phase-in.

Stress testing is a key supervisory tool, and tailoring changes reduced its coverage and timeliness for some firms; we will be revisiting this approach.

Oversight of incentives for bank managers should also be improved. SVB's senior management responded to the incentives approved by the board of directors; they were not compensated to manage the bank's risk, and they did not do so effectively. We should consider setting tougher minimum standards for incentive compensation programs and ensure banks comply with the standards we already have.

Closing

Contagion from the failure of SVB threatened the ability of a broader range of banks to provide financial services and access to credit for individuals, families, and businesses. Fast and forceful action by the Federal Reserve, the Federal Deposit Insurance Corporation, and the Treasury Department helped to contain the damage, but weaknesses in supervision and regulation must be fixed.

In doing so, we should be humble about our ability—and that of bank managers—to predict how losses might be incurred, how a future financial crisis might unfold, and what the effect of a financial crisis might be on the financial system and our broader economy. Greater resilience will guard against the risks that we may not fully appreciate today.

This report is a self-assessment, a critical part of prudent risk management, and what we ask the banks we supervise to do when they have a weakness. It is essential for strengthening our own supervision and regulation. I am grateful to the staff who conducted the review and prepared the report.

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.

Sincerely,

Michael S. Barr

Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank

April 2023

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

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Key Takeaways

This report examines the factors that contributed to the failure of Silicon Valley Bank. The report focuses on the role of the Federal Reserve, which was the primary federal supervisor for the bank and the bank holding company.

There are four key takeaways from the report:

1. Silicon Valley Bank's board of directors and management failed to manage their risks.

The report shows that Silicon Valley Bank was a highly vulnerable firm in ways that both its board of directors and senior management did not fully appreciate. These vulnerabilities—foundational and widespread managerial weaknesses, a highly concentrated business model, and a reliance on uninsured deposits—left Silicon Valley Bank acutely exposed to the specific combination of rising interest rates and slowing activity in the technology sector that materialized in 2022 and early 2023.

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 bank failed its own internal liquidity stress tests and did not have workable plans to access liquidity in times of stress. Silicon Valley Bank managed interest rate risks with a focus on short-run profits and protection from potential rate decreases, and removed interest rate hedges, rather than managing long-run risks and the risk of rising rates. In both cases, the bank changed its own risk-management assumptions to reduce how these risks were measured rather than fully addressing the underlying risks.

On March 8, 2023, Silicon Valley Bank announced a balance sheet restructuring that included the sale of certain securities and an intention to raise capital. This occurred during a period of heightened uncertainty for the technology sector, and the bank faced a run by depositors on March 9. Deposit outflows were over $40 billion on March 9, and management expected $100 billion more the next day. This unprecedented outflow led the California Department of Financial Protection and Innovation (CDFPI) to close the bank on March 10.

2. Supervisors did not fully appreciate the extent of the vulnerabilities as Silicon Valley Bank grew in size and complexity.

While the firm was growing rapidly from $71 billion to over $211 billion in assets from 2019 to 2021, it was not subject to heightened supervisory or regulatory standards. The Federal Reserve did not appreciate the seriousness of critical deficiencies in the firm's governance, liquidity, and interest rate risk management. These judgments meant that Silicon Valley Bank remained well-rated, even as conditions deteriorated and significant risk to the firm's safety and soundness emerged.

For governance, Silicon Valley Bank was rated satisfactory in terms of management for both the holding company and the bank from 2017 through 2021, despite repeated observations of weakness in risk management. In terms of liquidity, Silicon Valley Bank was rated strong in that same period and subject to limited-scope liquidity reviews as part of guidelines for smaller firms, despite its significant asset growth and idiosyncratic business model.

3. When supervisors did identify vulnerabilities, they did not take sufficient steps to ensure that Silicon Valley Bank fixed those problems quickly enough.

As Silicon Valley Bank continued to grow and faced heightened standards in 2021, the regulations provided for a long transition period for Silicon Valley Bank to meet those higher standards and supervisors did not want to appear to pull forward large bank standards to smaller banks in light of policymaker directives. This transition meant that the new supervisory team needed considerable time to make its initial assessments.

After these initial assessments, liquidity ratings remained satisfactory despite fundamental weaknesses in risk management and mounting evidence of a deteriorating position. The combination of internal liquidity stress testing shortfalls, persistent and increasingly significant deposit outflows, and material balance sheet restructuring plans likely warranted a stronger supervisory message in 2022.

With regard to interest rate risk management, supervisors identified interest rate risk deficiencies in the 2020, 2021, and 2022 Capital, Asset Quality, Management, Earnings, Liquidity, and Sensitivity to Market Risk (CAMELS) exams but did not issue supervisory findings. The supervisory team issued a supervisory finding in November 2022 and planned to downgrade the firm's rating related to interest rate risk, but the firm failed before that downgrade was finalized.

Overall, the supervisory approach at Silicon Valley Bank was too deliberative and focused on the continued accumulation of supporting evidence in a consensus-driven environment. Further, the rating assigned to Silicon Valley Bank as a smaller firm set the default view of the bank as a well-managed firm when a new supervisory team was assigned in 2021 after the firm's rapid growth. This made downgrades more difficult in practice.

4. The Board's tailoring approach in response to the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) and a shift in the stance of supervisory policy impeded effective supervision by reducing standards, increasing complexity, and promoting a less assertive supervisory approach.

Over the same period that Silicon Valley Bank was growing rapidly in size and complexity, the Federal Reserve shifted its regulatory and supervisory policies due to a combination of external statutory changes and internal policy choices.

In 2019, following the passage of EGRRCPA, the Federal Reserve revised its framework for supervision and regulation, maintaining the enhanced prudential standards (EPS) applicable to the eight global systemically important banks, known as G-SIBs, but tailoring requirements for other large banks. For Silicon Valley Bank, this resulted in lower supervisory and regulatory requirements, including lower capital and liquidity requirements. While higher supervisory and regulatory requirements may not have prevented the firm's failure, they would likely have bolstered the resilience of Silicon Valley Bank.

Over the same period, supervisory policy placed a greater emphasis on reducing burden on firms, increasing the burden of proof on supervisors, and ensuring that supervisory actions provided firms with appropriate due process. Although the stated intention of these policy changes was to improve the effectiveness of supervision, in some cases, the changes also led to slower action by supervisory staff and a reluctance to escalate issues.

Contents

Preface

On March 13, 2023, Vice Chair for Supervision Michael S. Barr requested a review of the failure of Silicon Valley Bank (SVB), including a review of the regulations applicable to firms such as SVB, particularly for fast-growing firms; a review of the supervisory regime; and an evaluation of whether supervisors had sufficient tools to address the weaknesses at SVB.

This report examines the failure of SVB, its holding company Silicon Valley Bank Financial Group (SVBFG), and the oversight provided by the Federal Reserve through its supervisory and regulatory authorities. The analysis considers the evolution of SVB and SVBFG from 2017 through March 8, 2023; the economic and financial environment in which they operated; and Federal Reserve oversight. The report covers both the regulation and supervision of SVB and SVBFG and focuses on the issues most pertinent to the failure of SVB.

The report does not review the events that occurred after March 8, 2023, including the closure of SVB on March 10, 2023, by the California Department of Financial Protection and Innovation (CDFPI), and the actions on March 12, 2023, by the U.S. Department of the Treasury, the Board of Governors of the Federal Reserve System (Board), and the Federal Deposit Insurance Corporation.[1]

This report was prepared by staff within the Federal Reserve System with expertise in supervision, financial analysis, policy analysis, legal issues, economics, business intelligence, and records management who were not involved in direct supervision of SVB or SVBFG. Staff participating in this report had full access to examine the supervisory record, review internal communications, perform independent analysis, and interview relevant Federal Reserve staff.

Two caveats are warranted. This report was written with the benefit of hindsight on the particular facts and circumstances that proved most relevant for SVB and SVBFG. The report was prepared in a compressed time frame from March 13, 2023, through April 28, 2023, and further work over a longer period could draw additional or different conclusions.

As part of this report, the Board is making available a wide range of supervisory material that is typically treated as confidential supervisory information (CSI). Due to the exceptional nature of these events, including the failure of SVB, the Board has determined that releasing this information is in the best interest of the public. The information is available at https://www.federalreserve.gov/supervisionreg/silicon-valley-bank-review-supervisory-materials.htm.

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1 Board of Governors of the Federal Reserve System, U.S. Department of the Treasury, Federal Deposit Insurance Corporation, "Joint Statement by Treasury, Federal Reserve, and FDIC," March 12, 2023, https://www.federalreserve.gov/newsevents/pressreleases/monetary20230312b.htm.

Executive Summary

On March 10, 2023, Silicon Valley Bank (SVB), a subsidiary of Silicon Valley Bank Financial Group (SVBFG), was closed by the California Department of Financial Protection and Innovation (CDFPI). Regulation and supervision are designed to lower the probability of distress at banks and their holding companies, but SVB, a bank subject to heightened standards because of its size, failed nonetheless.[2]

This report examines the multiple factors that contributed to the failure of SVBFG and reviews the role of the Federal Reserve, which was the primary federal supervisor for the holding company and the bank. The report covers the Federal Reserve's supervisory and regulatory responsibilities with respect to the Federal Reserve's safety-and-soundness objectives.

The report finds that four key factors contributed to the failure of SVBFG. This executive summary provides more details on each, which include:

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

At the core of the Federal Reserve's oversight framework is the expectation that boards of directors of supervised firms provide effective oversight, and that management is responsible for daily and operational decisions.[3] Supervisors assess the effectiveness of those individuals and the bank's risk-management processes but do not manage or run the banks. The objectives of boards and management are not perfectly aligned with those of the public, which is why prudential oversight through supervision and regulation is essential.

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[2] Throughout this report, Silicon Valley Bank Financial Group, the holding company, is referred to as "SVBFG." Silicon Valley Bank, the state member bank, is referred to as "SVB." SVBFG filed for bankruptcy on March 17, following the failure of SVB. Where context requires, the term SVBFG refers to both the holding company and the consolidated organization, inclusive of SVB.

[3] See Board of Governors of the Federal Reserve System, "Supervisory Guidance on Board of Directors' Effectiveness," SR letter 21-3/CA letter 21-1 (February 26, 2021), https://www.federalreserve.gov/supervisionreg/srletters/SR2103.htm.

The report shows that SVBFG was a highly vulnerable firm in ways that both SVBFG's board of directors and senior management and Federal Reserve supervisors did not fully appreciate. These vulnerabilities—foundational and widespread managerial weaknesses, a highly concentrated business model, and a reliance on uninsured deposits—left SVBFG acutely exposed to the specific combination of rising interest rates and slowing activity in the technology sector that materialized in 2022 and early 2023.

Federal Reserve supervisors did not fully appreciate these vulnerabilities as the firm grew in size and complexity. After risks were identified, supervisors did not take sufficient steps to ensure that SVBFG fixed them in a timely fashion. This reflects a complex combination of many factors within the Federal Reserve, including delays in applying more stringent standards as SVBFG grew rapidly, the resources devoted to SVBFG supervision, an approach that emphasized consensus and the continued accumulation of evidence even as SVBFG deteriorated, and a shift in the stance of supervision policy that was amplified by the COVID-19 pandemic.

A consolidated timeline of key events is available at the end of this section (figure 1).

Silicon Valley Bank Financial Group

Key Takeaway 1:
Silicon Valley Bank's board of directors and management failed to manage their risks.

SVBFG's failure can be tied directly to the failure of the board of directors and senior management. The board and management failed to effectively oversee the risks inherent in SVBFG's business model and balance sheet strategies. SVBFG did not take sufficient steps in a timely fashion to build a governance and risk-management framework that kept up with its rapid growth and business model risks. An SVBFG director, for example, told supervisors in 2022 that controls always lag growth. See the "Evolution of Silicon Valley Bank" section for more information.

Growth of SVBFG

SVBFG was a large bank holding company with approximately $212 billion in total assets when it failed in March 2023. SVBFG provided financial services predominantly to companies in the technology and life sciences sectors. Between 2019 and 2021, SVBFG tripled in size as it benefited from rapid deposit inflows during rapid venture capital (VC) and technology sector growth in a period of exceptionally low interest rates. These deposits were largely uninsured, and SVBFG invested them primarily in securities with longer-term maturities. In 2022, as interest rates began to rise, SVBFG saw deposit outflows and a rapid increase in unrealized losses on those securities.

SVBFG's rapid failure can be linked directly to its governance, liquidity, and interest rate risk-management deficiencies. The full board of directors did not receive adequate information from management about risks at SVBFG and did not hold management accountable. For example, information updates that management sent the board did not appropriately highlight SVBFG's liquidity issues until November 2022 despite deteriorating conditions. Moreover, the board put short-run profits above effective risk management and often treated resolution of supervisory issues as a compliance exercise rather than a critical risk-management issue. Compensation packages of senior management through 2022 were tied to short-term earnings and equity returns and did not include risk metrics. As such, managers had a financial incentive to focus on short-term profit over sound risk management.

SVBFG showed foundational weaknesses in its liquidity risk management, including both its liquidity position and its ability to manage risk through its internal liquidity stress tests (ILST), limits, and contingency funding plans (CFP). For example, beginning in July 2022 when SVBFG first became subject to enhanced prudential standards (EPS) under Regulation YY as a consequence of exceeding the $100 billion threshold, SVBFG repeatedly failed its own ILST.[4] Management responded by increasing funding capacity, but the funding capacity actions were not rapidly undertaken or fully executed by March 2023. Management also switched to using less conservative stress testing assumptions, which masked some of these risks. This was particularly problematic due to a highly concentrated deposit base that management assumed was more stable than it proved to be.

SVBFG failed to assess and manage the interest rate risk (IRR) in its rapidly growing securities portfolio. These risk-management challenges proved critical when the external environment for SVBFG changed as interest rates rose sharply and activity in the technology sector slowed in 2022 and 2023. Rising rates impacted SVBFG in two ways: both net interest income and the value of long-dated securities declined, resulting in pressure on earnings and potential losses.

SVBFG management was focused on the short-run impact on profits. SVBFG's internal risk appetite metrics, which were set by its board, provided limited visibility into its vulnerabilities. In fact, SVBFG had breached its long-term IRR limits on and off since 2017 because of the structural mismatch between long-duration securities and short-duration deposits. In April 2022, SVBFG made counterintuitive modeling assumptions about the duration of deposits to address the limit breach rather than managing the actual risk. Over the same period, SVBFG also removed interest rate hedges that would have protected against rising interest rates. In sum, when rising interest rates threatened profits and reduced the value of its securities, SVBFG management took steps to maintain short-term profits rather than effectively manage the underlying balance sheet risks.

[4] As described in greater detail in this report, Regulation YY implements certain of the enhanced prudential standards (EPS) mandated by the Dodd-Frank Act for large bank holding companies. See 12 C.F.R. pt. 252.

Failure of SVB

As the risks to the firm's balance sheet mounted, SVBFG took steps to address the issues and announced a plan on March 8, 2023, to restructure its balance sheet. SVBFG had sold $21 billion in available-for-sale (AFS) securities, was booking a $1.8 billion after-tax loss, was planning to increase term borrowings by $15 billion to $30 billion, and was seeking to raise $2.25 billion in capital.[5] The next day, SVB experienced a bank run as withdrawals of uninsured deposits rapidly accelerated. 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.

On March 9, SVB lost over $40 billion in deposits, and SVBFG management expected to lose over $100 billion more on March 10. This deposit outflow was remarkable in terms of scale and scope and represented roughly 85 percent of the bank's deposit base. By comparison, estimates suggest that the failure of Wachovia in 2008 included about $10 billion in outflows over 8 days, while the failure of Washington Mutual in 2008 included $19 billion over 16 days.[6] In response to these actual and expected deposit outflows, SVB failed on March 10, 2023, which in turn led to the later bankruptcy of SVBFG.

During the final days before its failure, SVB's operational weaknesses became apparent as it struggled to execute on its CFP. For example, SVB did not test its capacity to borrow at the discount window in 2022 and did not have appropriate collateral and operational arrangements in place to obtain liquidity. While stronger operational capacity to obtain contingency funding in March 2023 would likely not have prevented SVB's failure, it could have facilitated a more orderly resolution.

SVB's failure had two stages. First, its core risk-management capacity failed to keep up with rapid asset growth, which led to steady deterioration of its financial condition in 2022 and into March 2023. This reflected a long build-up of weakness, as SVBFG could not effectively manage through a changing economic and financial environment in 2022 and 2023. Second, SVBFG failed

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5 SVBFG, "Message to Shareholders Regarding Recent Strategic Actions Taken by SVB," 1, March 8, 2023, https://s201.q4cdn.com/589201576/files/doc_downloads/2023/03/r/Q1-2023-Investor-Letter.FINAL-030823.pdf; SVBFG, "SVB Financial Group Announces Proposed Offerings of Common Stock and Mandatory Convertible Preferred Stock," March 8, 2023, https://ir.svb.com/news-and-research/news/news-details/2023/SVB-Financial-Group-Announces-Proposed-Offerings-of-Common-Stock-and-Mandatory-Convertible-Preferred-Stock/default.aspx.

6 Jonathan D. Rose, "Old-Fashioned Deposit Runs," Finance and Economics Discussion Series 2015-111, table 1 (Washington: Board of Governors of the Federal Reserve System, November 2015), https://www.federalreserve.gov/econresdata/feds/2015/files/2015111pap.pdf.

to develop sufficient contingent funding capacity. This contributed to a disorderly failure when SVBFG tried to manage the acute situation after its March 8, 2023, balance sheet restructuring announcement.

Federal Reserve Oversight

Federal Reserve oversight of supervised firms involves the Federal Reserve Board and the 12 Reserve Banks. The Board establishes the regulations to which banks are subject and designs the programs used to supervise firms. In general, the Reserve Banks are responsible for the assessment of firms, such as SVBFG, in each District as part of delegated authority from the Board. In this arrangement, the Board staff provide input and support in supervision and also provide oversight of the Reserve Banks. In the case of SVBFG, the Federal Reserve Bank of San Francisco (FRBSF) was the responsible Reserve Bank. By policy design, supervisory and regulatory standards generally increase with a firm's size and complexity.[7]

The Federal Reserve organizes its supervisory approach based on asset size, with the exception of the global systemically important banks (G-SIBs) that are supervised within the Large Institution Supervision Coordinating Committee (LISCC) portfolio.[8] Banks with assets of $100 billion or more that are not G-SIBs are supervised within the Large and Foreign Banking Organization, or LFBO, portfolio. Banks with assets in the $10 billion to $100 billion range are supervised within the Regional Banking Organization, or RBO, portfolio. Banks with assets of less than $10 billion are supervised within the Community Banking Organization, or CBO, portfolio. While SVBFG was in the RBO portfolio, examination staffing generally came from pools of RBO and CBO examiners, who may have had less experience with the governance and risk-management practices required for a more sizable and complex institution like SVBFG.

Federal Reserve oversight of SVBFG proved inadequate for the well-documented and significant vulnerabilities and managerial weaknesses at SVBFG. The record shows that supervisors identified some of the material issues, but also underappreciated important ones, particularly during the period of SVBFG's rapid growth while in the RBO portfolio. SVB's foundational problems were widespread and well-known, yet core issues were not resolved, and stronger oversight was not put in place. As is often the case with complex problems, this outcome reflects a combination of many interconnected factors and not a single point of failure.

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7 See Board of Governors of the Federal Reserve System, "Federal Reserve Board Finalizes Rules that Tailor Its Regulations for Domestic and Foreign Banks to More Closely Match Their Risk Profiles," October 10, 2019, https://www.federalreserve.gov/newsevents/pressreleases/bcreg20191010a.htm.

8 Board of Governors of the Federal Reserve System, *Supervision and Regulation Report* (Washington: Board of Governors, November 2022), https://www.federalreserve.gov/publications/files/202211-supervision-and-regulation-report.pdf.

Supervisory Assessment

Key Takeaway 2:
Supervisors did not fully appreciate the extent of the vulnerabilities as Silicon Valley Bank grew in size and complexity.

SVBFG had 31 open supervisory findings when it failed in March 2023, about triple the number observed at peer firms.[9] The supervisory findings at SVBFG included core areas, such as governance and risk management, liquidity, interest rate risk management, and technology.

Supervisors last assessed SVBFG according to the Large Financial Institution (LFI) rating system in August 2022.[10] The ratings, while highlighting key weaknesses, did not fully reflect the vulnerabilities of SVBFG. Under this framework, supervisors assessed SVBFG on the following:

- **Governance and controls:** "Deficient-1," a rating that is less than satisfactory. Supervisors had told SVBFG that "governance and risk-management practices are below supervisory expectations" and that its "risk-management program is not effective" when three supervisory findings were issued in May 2022.[11]
- **Liquidity:** "Conditionally Meets Expectations (CME)," a satisfactory rating. Supervisors had informed SVBFG that its "liquidity risk management practices are below supervisory expectations" and identified foundational shortcomings in key areas as part of the issuance of six supervisory findings in November 2021.[12]
- **Capital:** "Broadly Meets Expectations (BME)," a satisfactory rating that is the highest rating in the LFI rating system. Supervisors later informed SVBFG that "interest rate risk (IRR) simulations are not reliable and require improvements…calling into question the reliability of IRR modeling and the effectiveness of risk-management practices" when one supervisory finding was issued in November 2022.[13]

A review of the supervisory record shows that supervisory judgments were not always appropriate given the observed weaknesses of SVBFG (see the "Federal Reserve Supervision" section and the "Supervision of SVBFG by Critical Risk Areas" section). In particular, SVBFG was rated as "Satisfactory-2" in all categories when it shifted from the RBO portfolio to the LFBO portfolio in 2021. Liquidity at SVB was rated "Strong-1" in May 2021 and then "Satisfactory-2" in August 2022.

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9 Supervisory findings include matters requiring attention (MRAs) and matters requiring immediate attention (MRIAs). As described in greater detail in this report, MRAs and MRIAs are one of the primary tools to formally convey supervisory findings. The 31 supervisory findings refer to safety-and-soundness findings. SVBFG also had four open consumer compliance findings.

10 SVBFG and SVB 2021 Supervisory Ratings letter, August 17, 2022. See table 4 of this report. See also Board of Governors of the Federal Reserve System, "Large Financial Institution (LFI) Rating System," SR letter 19-3/CA letter 19-2 (February 26, 2019), https://www.federalreserve.gov/supervisionreg/srletters/sr1903.pdf.

11 SVBFG and SVB Governance and Risk Management Target Supervisory letter, May 31, 2022.

12 SVBFG Liquidity Planning Target Supervisory letter, November 2, 2021.

13 SVB 2022 CAMELS Examination Supervisory letter, November 15, 2022.

For governance, SVBFG was rated "Satisfactory-2" in terms of management for both the holding company and the bank from 2017 through 2021 despite repeated observations of weakness in risk management. For example, the 2020 review confirmed that management and board oversight remained satisfactory, but also concluded that improvements were necessary: "An independent and effective LOD [line of defense] framework is fundamental to the Board and management's ability to plan for and respond to risks arising from changing business conditions, new activities, accelerated growth, and increasing complexity."[14] The evidence shows no discussion of downgrading the management rating. When SVBFG moved to the LFBO portfolio, supervisors recognized that SVBFG's risk management was not robust and proceeded to build evidence, issue MRIAs, and downgrade SVBFG. Governance and Controls were ultimately rated "Deficient-1," but not until August 2022.

In terms of liquidity, SVBFG was rated "Strong-1" and subject to limited-scope liquidity reviews as part of the guidelines for smaller firms, despite its significant asset growth and idiosyncratic business model. A more thorough evaluation prior to joining the LFBO portfolio would have been beneficial, given the lag since the last in-depth examination and the heightened standards for a firm in the LFBO portfolio. Moreover, the standard liquidity risk metrics in the RBO portfolio were likely not appropriate for a bank like SVB. For example, a commonly used metric was the ratio of core deposits, which excludes large time deposits and brokered deposits, to total assets. By this metric, SVB appeared to have a comparatively stable source of funding despite the fact that SVB's deposits were concentrated in large, uninsured accounts that proved to be quite volatile.

For IRR, SVBFG was rated as "Satisfactory-2" despite the firm repeatedly breaching its internal risk limits for long-term risk exposure over several years. IRR was not viewed as a material risk at SVBFG until late 2022 and therefore not subject to a thorough examination.

Portfolio Transition and Heightened Standards

In the case of SVBFG, despite widespread evidence of foundational governance and risk-management issues, supervisors were slow to downgrade supervisory ratings or to ensure that SVBFG's board and senior management took sufficient and immediate steps to compensate for those widespread weaknesses (see the "Federal Reserve Supervision" section and the "Supervision of SVBFG by Critical Risk Areas" section).

Key Takeaway 3:
When supervisors did identify vulnerabilities, they did not take sufficient steps to ensure that Silicon Valley Bank fixed those problems quickly enough.

During the second half of 2022 and into 2023, as SVBFG's liquidity steadily weakened, unrealized losses accumulated on its securities portfolios, and its performance outlook deteriorated, supervisors continued to accumulate evidence of widespread weaknesses and delayed escalating

[14] SVB 2020 CAMELS Examination Report, May 3, 2021.

supervisory action. For example, it took more than seven months to develop an informal enforcement action, known as a memorandum of understanding (MOU), for SVBFG and SVB to address the underlying risks related to "oversight by their respective boards of directors and senior management and the Firm's risk-management program, information technology program, liquidity risk-management program, third-party risk-management program, and internal audit program."[15] SVBFG failed before the MOU was delivered.

The supervision of SVBFG was complicated by the transition of SVBFG, due to its rapid growth in assets, from the RBO portfolio to the LFBO portfolio within the Federal Reserve supervisory structure in February 2021. As a result of its rapid growth, SVBFG shifted to the LFBO portfolio in 2021 and was subject to a higher set of supervisory and regulatory standards. FRBSF established a new team to supervise SVBFG as an LFBO firm in March 2021, which included an expansion to 20 individuals, up from about 8 individuals while SVBFG was in the RBO portfolio.

By policy design, banks in the LFBO portfolio are subject to more stringent supervisory expectations and higher regulatory requirements. As SVBFG continued to grow and entered the LFBO portfolio, the regulations provided for a long transition period, or runway, for SVBFG to meet those higher standards, and supervisors did not want to appear to pull forward large bank standards by applying them to smaller banks in light of policymaker directives. This transition meant that the new supervisory team needed considerable time to make their initial assessments. In addition, Board staff provided the FRBSF team a waiver to delay the initial set of ratings under the LFI rating system by six months until August 2022.[16]

Once SVBFG moved to the LFBO portfolio, liquidity ratings remained satisfactory despite fundamental weaknesses in risk management and mounting evidence of a deteriorating position. The combination of ILST shortfalls, persistent and increasingly significant deposit outflows, and material balance sheet restructuring plans likely warranted a stronger supervisory message in 2022. The record suggests a desire to wait for further evidence after the planned horizontal liquidity review (HLR) in 2023, which ultimately found additional issues related to SVBFG's ILST assessment and capacity to monetize liquidity buffers. SVBFG's liquidity shortfalls from its ILST were not accurately reflected in an assessment of SVBFG's true liquidity risk. Rather, the shortfall was characterized as an "operational" one by both SVBFG and supervisors. This ILST shortfall was in fact a violation by the firm of the corresponding liquidity regulation, Regulation YY, which should have led to an MRIA that required SVBFG to take immediate action to remedy the breach.

The rating assigned in the RBO portfolio set the default view of SVBFG as a solid firm for the new supervisory team when SVBFG entered the LFBO portfolio and made downgrades more difficult

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15 Memorandum of Understanding (Draft), March 10, 2023.

16 The LFI rating system applies to holding companies; see SR letter 19-3.

in practice. For example, as part of the initial liquidity target exam in November 2021 that led to six supervisory findings, staff concluded that the proposed findings were all foundational issues, rather than ones specifically related to EPS readiness. Despite the observed weaknesses, 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.

With regard to interest rate risk-management, supervisors identified interest rate risk deficiencies in the 2020, 2021, and 2022 CAMELS exams but did not issue supervisory findings (MRA/MRIA). The deficiencies were only communicated as written advisories or verbal observations. As a second example, in the first half of 2022, SVBFG believed that it would see higher net interest income (NII) from rising interest rates. In October 2022, however, SVBFG management informed supervisors that NII was now projected to decline in the fourth quarter of 2022. The supervisory team issued an MRA in November 2022 and planned to downgrade the Sensitivity to Market Risk rating in the CAMELS framework from "Satisfactory-2" to "Less-than-Satisfactory-3" as part of the 2022 CAMELS exam.[17] The firm failed before that downgrade was finalized.

While supervisors did issue supervisory findings, the delay in a rating downgrade meant that SVBFG effectively continued to operate below supervisory expectations for more than a year despite its growing size and complexity. Federal Reserve supervisors ultimately downgraded SVB's CAMELS ratings for Management, Liquidity, and on a Composite basis in August 2022 and SVBFG's Governance and Controls were determined to be less than satisfactory.[18] Despite widespread weaknesses, this 2022 action was the first downgrade of SVBFG or SVB in the period since 2017.

Overall, the supervisory approach at SVBFG was too deliberative and focused on the continued accumulation of supporting evidence in a consensus-driven environment. Further, 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. This made downgrades more difficult in practice.

The root cause of these delays around supervisory actions is difficult to ascertain. Governance issues related to the Board's approach to delegated authority may play a role. For example, the Board has delegated to the Reserve Banks supervisory authority for firms like SVBFG, including the authority to issue supervisory ratings, but in practice, Reserve Bank supervisors typically seek approval from or consensus with Board staff before making a rating change. Enforcement actions for banks with assets greater than $100 billion are not delegated to Reserve Banks but require

[17] SVB 2022 CAMELS Examination Supervisory letter, November 15, 2022.
[18] SVBFG and SVB 2021 Supervisory Ratings letter, August 17, 2022.

approval by Board staff. The lack of clarity around governance processes and the need for consensus often led to a lengthy process.

A related complication is that the Board provides substantive input to the supervisory process, including the ratings for firms subject to delegated authority, and also acts in an oversight capacity over the Reserve Banks. This creates conflicting incentives for the Reserve Banks that could be an additional force that pushes toward consensus around supervisory judgments.

Policy Stance

Key Takeaway 4:
The Board's tailoring approach in response to 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.

Over the same period that SVBFG was growing rapidly in size and complexity, the Federal Reserve shifted its regulatory and supervisory policies because of a combination of external statutory changes and internal policy choices (see the "Federal Reserve Supervision" section, the "Supervision of SVBFG by Critical Risk Areas" section, and the "Federal Reserve Regulation" section). The Board's Vice Chair for Supervision, a position that is appointed by the President and confirmed by the Senate for a four-year term, is responsible for developing supervisory and regulatory policies for the Board to consider.

In 2018, EGRRCPA amended the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) by raising the $50 billion minimum asset threshold for general application of EPS to bank holding companies with $250 billion in total assets.[19] At the same time it raised the threshold for general application of EPS, EGRRCPA provided the Board with discretion to rebut the statutory presumption and apply EPS to bank holding companies with total assets between $100 billion and $250 billion.

In October 2019, the Board established categories for determining application of the EPS to large U.S. banking organizations and foreign banking organizations through the 2019 tailoring rule, as well as EPS related to capital and liquidity requirements.[20] This tailoring was consistent with EGRRCPA and reflected policy choices about how Federal Reserve oversight should be designed and implemented. Specifically, the threshold for EPS was raised from $50 billion in assets to $100 billion in assets, and SVBFG was subject to a less stringent set of EPS when it reached

[19] Economic Growth, Regulatory Relief, and Consumer Protection Act, Pub. L. No. 115-174, 132 Stat. 1296, 1356, § 401(a) (2018) (codified at 12 U.S.C. § 5365).

[20] Prudential Standards for Large Bank Holding Companies, Savings and Loan Holding Companies, and Foreign Banking Organizations, 84 Fed. Reg. 59,032 (November 1, 2019), https://www.federalregister.gov/documents/2019/11/01/2019-23662/prudential-standards-for-large-bank-holding-companies-savings-and-loan-holding-companies-and-foreign.

the $100 billion threshold than would have applied before 2019 (see the "Federal Reserve Regulation" section). Critically for supervision, the Board raised the threshold for heightened supervision by the LFBO portfolio from $50 billion in assets to $100 billion in assets in July 2018 to track the new EGRRCPA thresholds, which delayed application of heightened supervisory expectations to the firm by at least three years.

In 2018, the Board confirmed its policy stance on supervisory guidance, issuing "guidance on guidance," which publicly clarified the role of supervisory expectations as compared to laws or regulations.[21] In April 2021, the Board adopted a final rule to codify the long-standing principle that supervisory guidance does not have the force and effect of law, but rather outlines expectations and appropriate practices for a particular subject area or activity.[22]

Over the same period, under the direction of the Vice Chair for Supervision, supervisory practices shifted. In the interviews for this report, staff repeatedly mentioned changes in expectations and practices, including pressure to reduce burden on firms, meet a higher burden of proof for a supervisory conclusion, and demonstrate due process when considering supervisory actions. There was no formal or specific policy that required this, but staff felt a shift in culture and expectations from internal discussions and observed behavior that changed how supervision was executed. As a result, staff approached supervisory messages, particularly supervisory findings and enforcement actions, with a need to accumulate more evidence than in the past, which contributed to delays and in some cases led staff not to take action.

It is difficult to judge how these collective changes in policy affected the oversight of SVBFG, but a review of the historical record and staff interviews suggest that they played a role. Although the stated intention of these policy changes was to improve the effectiveness of supervision, the changes also led to slower action by supervisory staff and a reluctance to escalate issues. For example, staff informed SVBFG about a forthcoming MOU around information technology in 2021, but staff subsequently dropped the matter because they felt it would not be pursued by policymakers at that time.

Over the same period, the intensity of supervisory coverage of SVBFG declined while SVBFG was in the RBO portfolio. For example, scheduled supervision hours for SVBFG fell over 40 percent from 2017 to 2020 (impacted, in part, by the pandemic), even as SVBFG grew rapidly. Supervisory attention increased dramatically in 2022 when SVBFG entered the LFBO portfolio. Budgetary resources may have mattered also. During this period, the overall number of supervisory resources

[21] Board of Governors of the Federal Reserve System, "Interagency Statement Clarifying the Role of Supervisory Guidance," SR letter 18-5/CA letter 18-7 (September 11, 2018). Because the SR letter was codified in the 2021 final rule on guidance, the SR letter was made inactive.

[22] Role of Supervisory Guidance, 86 Fed. Reg. 18,173 (April 8, 2021), https://www.federalregister.gov/documents/2021/04/08/2021-07146/role-of-supervisory-guidance.

remained flat. From 2016 to 2022, for example, banking sector assets grew 37 percent (nominal terms), while Federal Reserve System supervision headcount declined by 3 percent.

A final factor was the impact of the COVID-19 pandemic that began in March 2020. At that time, SVBFG was in the RBO portfolio. The Board issued supervisory guidance for supervisors to continue to assess institutions in accordance with existing policies and to consider whether firms have managed risks appropriately, including taking action in response to the stress from COVID-19.[23]

One practical impact was a pause in some examinations for the RBO portfolio that may have made SVBFG's transition from the RBO to the LFBO portfolio more abrupt. Moreover, supervisors needed additional time to reassess supervisory views. When LFBO work on SVBFG began in the middle of 2021, the new team began with a safety-and-soundness assessment that was issued by supervisors in May 2021 based on exam work done in the fall of 2020. Over that period, SVBFG had continued its rapid growth.

Regulation

SVBFG's rapid growth led it to move across categories of the Federal Reserve's regulatory framework (see the "Federal Reserve Regulation" section). Under the current framework, the application of rules to a particular firm depends on a range of factors related to a firm's size and complexity. As seen in the visual produced by the Federal Reserve Board,[24] the framework is quite complicated. SVBFG and staff supervising SVBFG spent considerable effort seeking to understand the rules and when they apply, including the implications of different evaluation criteria, historical and prospective transition periods, cliff effects, and complicated definitions. SVBFG regularly engaged consultants to help prepare for the transition.

In June 2021, SVBFG crossed the $100 billion threshold in average total consolidated assets and therefore met the criteria for a Category IV firm under the 2019 tailoring rule. SVBFG became subject to capital, liquidity, and risk-management requirements applicable to Category IV firms. SVBFG also faced specific supervisory guidance regarding corporate governance, board effectiveness, and management of interest rate risk. However, at the time of its failure, an important subset of Category IV capital and liquidity requirements, including supervisory stress testing, the stress capital buffer, the liquidity coverage ratio (LCR), and the net stable funding ratio (NSFR), were not yet applied to SVBFG because of applicable transition periods in the rules. For example, SVBFG's first

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23 Board of Governors of the Federal Reserve System, "Interagency Examiner Guidance for Assessing Safety and Soundness Considering the Effect of the COVID-19 Pandemic on Institutions," SR letter 20-15 (June 23, 2020), https://www.federalreserve.gov/supervisionreg/srletters/sr2015.htm.

24 Board of Governors of the Federal Reserve System, "Requirements for Domestic and Foreign Banking Organizations," Tailoring Rule Visual (October 10, 2019), https://www.federalreserve.gov/aboutthefed/boardmeetings/files/tailoring-rule-visual-20191010.pdf.

supervisory stress test would have occurred in 2024, more than two years after SVBFG became a Category IV firm.

In the absence of these changes, SVBFG would have been subject to enhanced liquidity risk management requirements, full standardized liquidity requirements (i.e., LCR and NSFR), enhanced capital requirements, company-run stress testing, supervisory stress testing at an earlier date, and tailored resolution planning requirements. An analysis of SVBFG's December 2022 capital and liquidity levels against the pre-2019 requirements suggests that SVBFG would have had to hold more high-quality liquid assets (HQLA) under the prior set of requirements.[25] For example, under the pre-2019 regime, SVBFG would have been subject to the full LCR and would have had an approximately 9 percent shortfall of HQLA in December 2022, and estimates for February 2023 show an even larger shortfall (approximately 17 percent), which would have required different actions from SVBFG. In terms of capital, under the pre-2019 regime, SVBFG would have been required to recognize unrealized gains and losses on its AFS securities portfolio in its regulatory capital; by including the unrealized losses on its AFS securities portfolio, in December 2022 SVBFG's reported regulatory capital would have been $1.9 billion lower.

Increased capital and liquidity would have bolstered the resilience of SVBFG. The requirements may also have encouraged closer scrutiny of the firm's financial position. Had SVBFG been subject to the capital and liquidity requirements that existed before EGRRCPA and related rulemakings, SVBFG may have more proactively managed its liquidity and capital positions or maintained a different balance sheet composition.

A comprehensive assessment of changes from EGRRCPA, the 2019 tailoring rule, and related rulemakings show that they combined to create a weaker regulatory framework for a firm like SVBFG. Further, the long transition periods provided by the rules that did apply further delayed the implementation of requirements, such as stress testing, that may have contributed to the resiliency of the firm.

Other Findings

Surveillance and Analytics

Staff at the Board and the Reserve Banks produce a wide range of analytical work that examines the condition of the U.S. banking system with a specific focus on emerging risks that is designed to provide context for policymakers and staff (see the "Additional Topics" section). A review of both internal and external material shows that staff identified a wide range of emerging

[25] It should be noted that had these heightened requirements come into effect based on the pre-EGRRCPA criteria (e.g., at least $250 billion in total consolidated assets or at least $10 billion of total consolidated on-balance sheet foreign exposure), SVBFG may have proactively managed its asset size and on-balance sheet foreign exposure to avoid becoming subject to these additional requirements.

issues, including the impact of rising interest rates on securities valuation and potential deposit impacts, both of which proved relevant for SVB. The Board received a briefing on these topics in mid-February 2023 in which SVBFG was specifically identified as an example of a large firm with "significant safety and soundness risks."[26] Analytical reports also highlighted that bank deposits that increased rapidly during the pandemic presented a rising risk, particularly in the FRBSF District where outflows were relatively large in the fourth quarter of 2022.

Overall, the analytical and surveillance work seemed largely fit for purpose in terms of traditional assessments of the condition of the banking industry and emerging risks for individual banks. While the surveillance work covered traditional topics, it did not expressly consider certain emerging forces such as changing depositor dynamics or the implications for contingency funding. In addition, it is not clear how this surveillance work impacted the specific supervisory approach for SVBFG.

Finally, this report focused on the perspective of risks to individual firms and did not review financial stability work related to the systemic factors that proved critical after the failure of SVBFG.

Other Topics

The report examines the Federal Reserve's assessment of several additional topics: the firm's incentive compensation program, applications to expand its operations, SVB's loan agreements that required borrowers to place deposits at SVB, and application of the Volcker rule to SVB (see the subsections under the "Additional Topics" section).

As discussed later in the report, SVBFG's incentive compensation practices may have encouraged excessive risk-taking. The other topics appear less salient to the failure of SVB.

Behavior

The report found no evidence of unethical behavior on the part of supervisors. The previous conclusions relate to substantive supervisory judgments in the development and implementation of the Federal Reserve's oversight program only.

Issues for Consideration

The final portion of this report considers lessons learned from the failure of SVBFG that could enhance the Federal Reserve's supervision and regulation (see the "Observations for Federal Reserve Oversight" section). Lessons learned are an important component of this type of review, but it is useful to describe the caveats and challenges.

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[26] Board of Governors of the Federal Reserve System, "Impact of Rising Rates on Certain Banks and Supervisory Approach," S&R Quarterly Presentation, February 14, 2023.

One challenge is to be as clear as possible about the underlying problems to be solved. For example, in the case of SVBFG's failure, one must determine how much weight to put on the decisions of SVBFG's board and management, the design of the Federal Reserve's supervision and regulation, the execution of that supervision and regulation, and the specific combination of environmental factors that materialized in 2022 and early 2023. This type of causal decomposition is quite difficult from a single event.

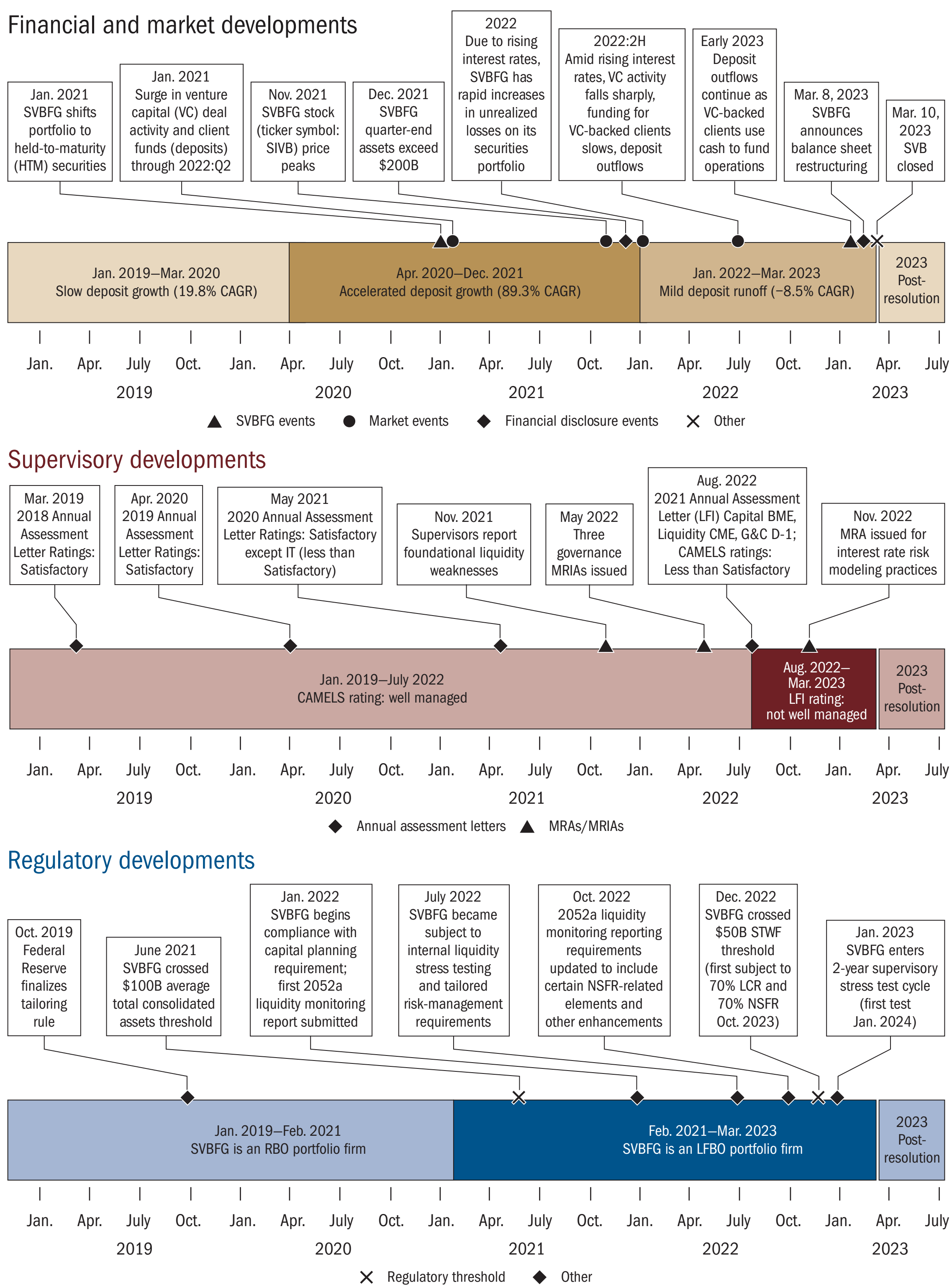
Second, decisions about the stance of policy and desired level of resilience appropriately reflect policymakers' views on many complex and interrelated topics: risk appetite; the costs of regulatory burden; the competitive landscape; how financial services are most efficiently provided to an economy; the importance of transparency, accountability, and fairness; the effectiveness of market discipline; and the source and impact of systemic spillovers. Different policymaker choices and trade-offs will have different implications for the resilience of the financial system, the desired stance of prudential oversight, and financial outcomes.

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.

A successful review of the Federal Reserve's regulatory and supervisory program will depend critically on difficult judgments about these issues. To begin that discussion, the final section of this report identifies four broad thematic areas of potential changes: enhance risk identification; promote resilience; change supervisor behavior; and strengthen processes.

Supervisors expect banks to manage all material risks, so these issues are not limited to the specific factors that drove the failure of SVBFG. Rather, the themes are meant to identify broad and foundational issues that could better promote safety and soundness generally. Looking beyond current events, many of these issues are not new and echo similar issues raised in earlier reviews of Federal Reserve supervision. This suggests both the importance of this type of review and the challenges ahead.

Figure 1. Timeline of key developments



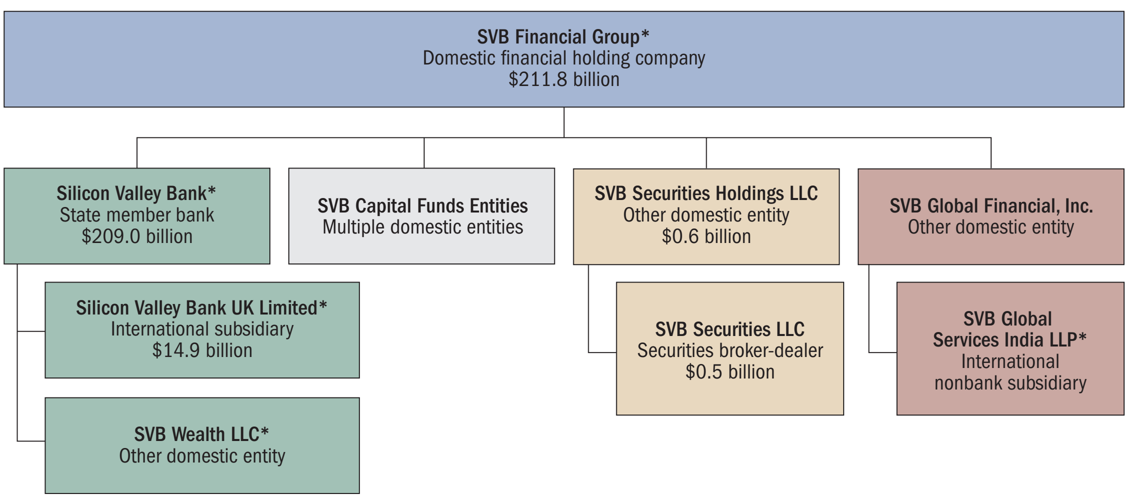
Note: CAGR = compound annual growth rate. Mild deposit runoff (–8.5 percent CAGR) period calculated as January 2022 through December 2022.

Evolution of Silicon Valley Bank

Overview

Silicon Valley Bank Financial Group (SVBFG) was founded in 1983 and was headquartered in Santa Clara, California. Prior to its failure, SVBFG was a financial services company, financial holding company, and bank holding company with approximately $212 billion in total assets.[27] SVBFG's principal subsidiary was Silicon Valley Bank (SVB), a California state-chartered bank with approximately $209 billion in assets (figure 2) that was a member of, and supervised by, the Federal Reserve System (i.e., state member bank).[28] While SVBFG had both U.S. and non-U.S. subsidiaries, SVBFG primarily operated in the U.S. and offered commercial and private banking products and services through SVB. SVBFG derived substantially all of its revenue from U.S. clients, and approximately 80 percent of its employees were based in the United States.[29]

Figure 2. SVBFG selected legal entity structure



Note: Data as of December 31, 2022. Structure simplified for illustrative purposes.

* Indicates the five legal entities SVB identified as material in its 2022 resolution plan.

Source: Federal Financial Institutions Examination Council (FFIEC) National Information Center.

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27 Total assets as of December 31, 2022. See SVBFG, 2022 10-K, 63, February 24, 2023, https://ir.svb.com/financials/sec-filings/sec-filings-details/default.aspx?FilingId=16435322.

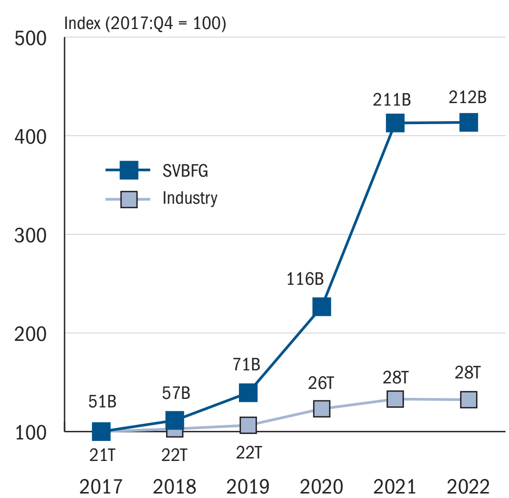
28 See Federal Financial Institutions Examination Council, National Information Center, https://www.ffiec.gov/npw/Institution/Profile/802866?dt=20151231.

29 According to SVBFG's 2022 10-K, SVBFG derived less than 10 percent of its total revenues from foreign clients for each of 2022, 2021, and 2020, and approximately 20 percent of SVBFG's employees were in international locations, including the United Kingdom, Denmark, Germany, Ireland, Israel, China, Hong Kong, India, Sweden, and Canada. SVBFG, 2022 10-K, 8–9.

SVBFG provided financial services to both emerging growth and mature companies in the technology and life sciences sectors, with a focus on attracting early-stage or start-up companies as clients and retaining those companies as clients as they grow through the various stages of their life cycles.[30] According to its website, SVBFG provided banking services for "innovators, entrepreneurs, and investors," including "nearly half [of] U.S. venture-backed technology and life sciences companies."[31] As a result, SVBFG's client base was heavily concentrated in venture capital-backed (VC-backed) and early-stage start-up firms.

SVBFG's Rapid Growth

Figure 3. SVBFG and banking industry total assets



Note: The key identifies lines in order from top to bottom. All values indexed to 100 at year-end 2017. Values are as of year-end. Values are in billions of dollars for SVBFG and in trillions of dollars for the industry. Industry aggregate includes all top-holder firms.

Source: FR Y-9C and Call Report.

At year-end 1983, SVB's assets were approximately $18 million, and SVBFG grew gradually through 2019.[32] Between 2019 and 2021, SVBFG tripled in size. According to SVBFG's earnings release, 2021 was an "exceptional year of growth driven by outstanding client liquidity"[33] during which low interest rates were an amplifying factor.[34] SVBFG attributed its deposit growth to clients "obtaining liquidity through liquidity events, such as IPOs, secondary offerings, SPAC fundraising, venture capital investments, acquisitions, and other fundraising activities—which during 2021 and early 2022 were at notably high levels."[35]

While low interest rates and more-frequent client funding events affected all financial institutions and their clients, SVBFG saw an outsized impact because of its concentration in venture capital and start-up clients, and SVBFG invested these deposits in long-dated

[30] SVBFG, 2022 10-K, 32-33.

[31] SVBFG, Corporate Overview, October 2022, 5, https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

[32] Data derived from SVB's Consolidated Reports of Condition and Income (Call Report) on Federal Financial Institutions Examination Council's Form FFIEC 041.

[33] See SVBFG, SVB Financial Group Announces 2021 Fourth Quarter and Full Year Financial Results (2021 Fourth Quarter Financial Results), 1, January 20, 2022, https://s201.q4cdn.com/589201576/files/doc_financials/2022/01/4Q21-Earnings-Release-FINAL.pdf.

[34] SVBFG, Q4 2021 Financial Highlights, 8, January 2022, https://s201.q4cdn.com/589201576/files/doc_presentations/2022/01/01/Q4_2021_IR_Presentation_vFINAL.pdf.

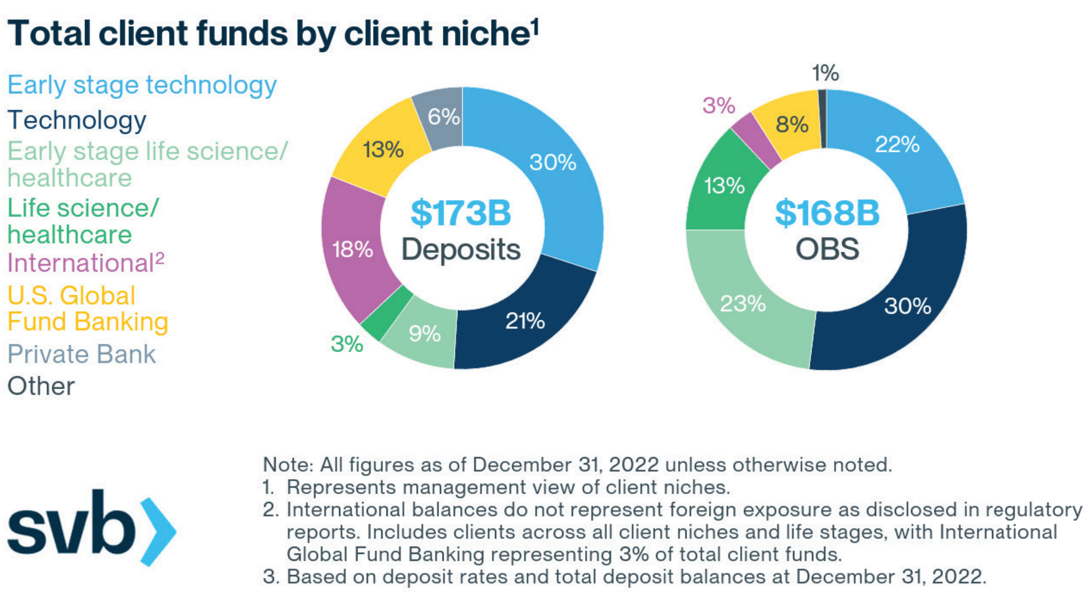
[35] SVBFG, 2022 10-K, 32.

securities. SVBFG's assets grew 271 percent from year-end 2018 to year-end 2021, compared to 29 percent for the banking industry (figure 3). Asset growth slowed dramatically in 2022 as tech-sector activity slowed in a rising-interest-rate environment.

SVBFG and the Tech Sector

SVBFG's customer base was heavily concentrated in VC-backed technology and life sciences companies. VC-backed companies accounted for more than half of SVBFG's deposits at year-end 2022, and client funds that SVBFG placed off-balance-sheet were even more concentrated in the same client group (figure 4).[36] This concentration linked SVBFG's funding growth directly to VC deal activity. As VC deal activity boomed in 2021 and early 2022 (figure 5), SVBFG's clients received investment proceeds, which were then deposited at SVB, increasing SVBFG's deposit levels (figure 6).

Figure 4. SVBFG client funds by client type

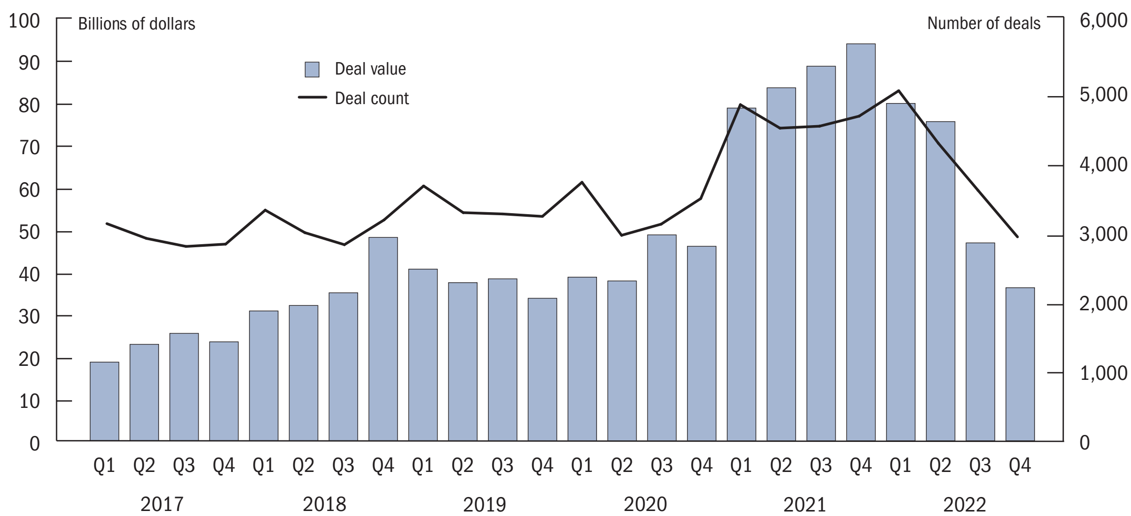


Source: SVBFG 2022:Q4 financial highlights, January 19, 2023.

[36] See SVBFG, SVB Financial Group announces 2022 Fourth Quarter Financial Results, 6, January 19, 2023, https://s201.q4cdn.com/589201576/files/doc_financials/2022/q4/4Q22-SIVB-Earnings-Release-Final.pdf. "Off-Balance sheet client investment funds," including sweep money market accounts, third-party funds managed by SVB, and repo investments, are "maintained at third-party financial institutions."

In the second half of 2022, VC activity fell sharply as part of a broader pullback in tech investment, which was driven by lower investor risk appetite as interest rates rose and concerns about the economy increased. Slower funding for VC-backed clients led to slower inflows into SVBFG's

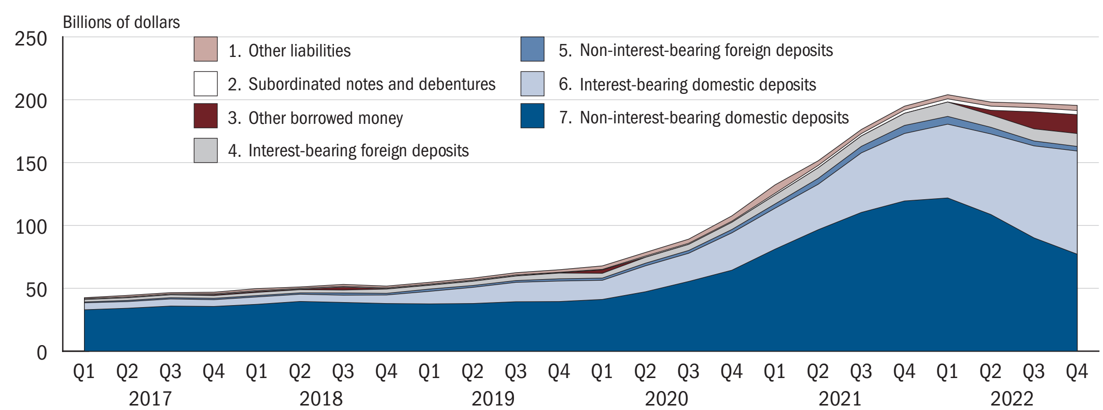
Figure 5. U.S. venture capital (VC) deal activity by quarter



Note: Deal activity is defined as equity investments into startup companies from an outside source.

Source: PitchBook Data, Inc., Private Equity and Venture Capital Databases Research Platform, https://pitchbook.com/products.

Figure 6. Composition of SVBFG liabilities

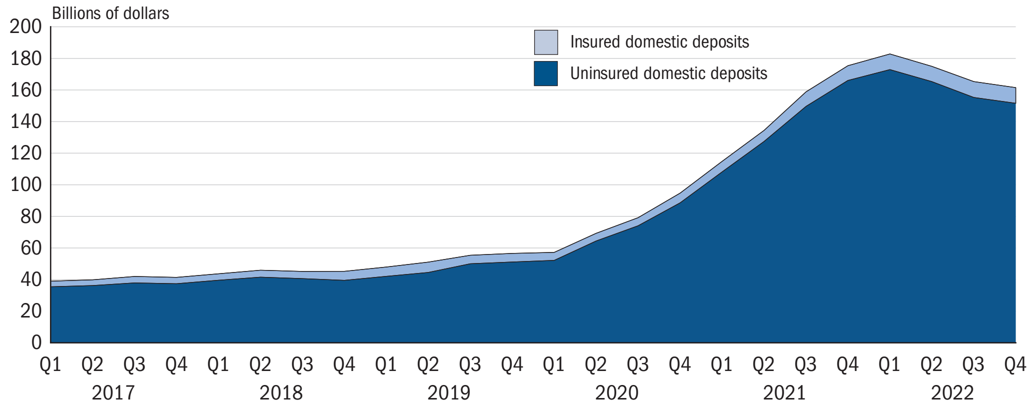


Note: The key identifies areas in order from top to bottom. SVBFG's other borrowed money liabilities represent obligations with a maturity of one year or less.

Source: FR Y-9C.

client accounts. In addition, SVBFG management stated that client fund balances were negatively affected by an increase in deposit outflows as clients withdrew more cash to fund their business operations.[37] Further, the majority of SVB's deposits were uninsured (figure 7). As of year-end 2022, approximately 94 percent of SVBFG's total deposits were uninsured.[38]

Figure 7. SVB deposit insurance coverage



Note: The key identifies areas in order from top to bottom.

Source: Call Report.

SVBFG chose to invest a large portion of client deposits in long-dated, held-to-maturity (HTM), government or agency-issued mortgage-backed securities (agency MBS) (figure 8). These securities are low risk from a credit perspective and provide a predictable return based on the interest rate at the time of purchase. As of December 31, 2022, SVBFG's total HTM securities portfolio had a weighted-average duration of 6.2 years, and the majority of SVBFG's HTM portfolio consisted of agency MBS with a maturity of 10 years or more.[39]

To be classified as HTM, securities must be purchased with the intent and ability to be held until maturity. Classification as HTM enables the securities booked in this fashion to be carried at amortized historical cost rather than at their fluctuating mark-to-market value. Generally, if a bank sells a portion of its HTM portfolio, the entire portfolio would be required to be reclassified as AFS and marked to market. In view of this accounting constraint and the large growth that had

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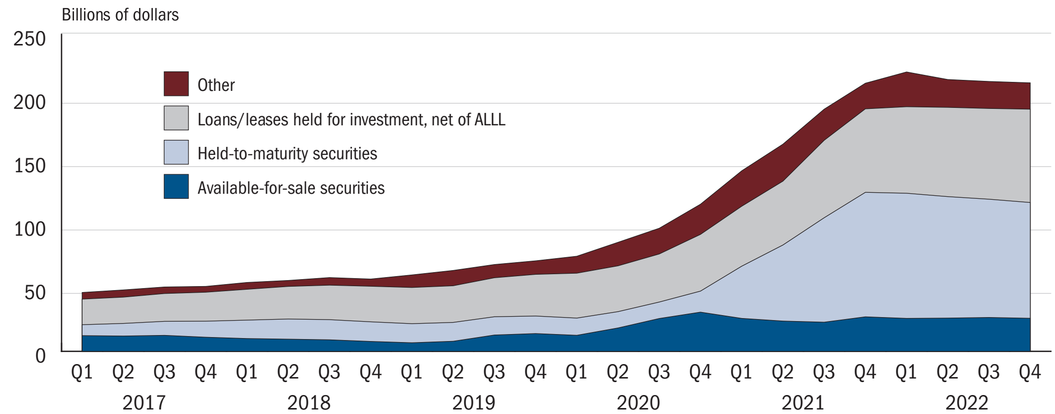
[37] SVBFG, Strategic Actions/Q1 '23 Mid-Quarter Update, 16, March 8, 2023, https://s201.q4cdn.com/589201576/files/doc_downloads/2023/03/Q1-2023-Mid-Quarter-Update-vFINAL3-030823.pdf.

[38] Data derived from SVB's December 31, 2022, Call Report and SVBFG's December 31, 2022, Consolidated Financial Statement for Holding Companies (Form FR Y-9C).

[39] SVBFG, 2022 10-K, 66.

Figure 8. Composition of SVBFG assets



Note: The key identifies areas in order from top to bottom. ALLL is allowance for loan and lease losses.

Source: FR Y-9C.

occurred in its HTM portfolio, SVBFG was limited in its ability to adjust its portfolio as the rate environment changed. In 2022, as interest rates began to rise, SVBFG saw a rapid increase in unrealized losses on both its HTM and available-for-sale (AFS) portfolios (figure 9).[40]

SVBFG Relative to Peers

SVBFG's tech-focused business model made it an outlier relative to its peers in terms of growth, funding mix, and composition of the balance sheet (table 1). As of year-end 2022, SVBFG's securities portfolio as a share of total assets was more than double the large banking organization (LBO) peer group, and SVBFG's HTM portfolio, as a percentage of total securities, was also nearly double that of the average LBO. SVBFG's uninsured deposits as a percentage of total deposits were more than double the LBO average. At the same time, SVBFG's common equity tier 1 capital ratio (12 percent) was 200 basis points higher than the LBO average (10 percent).[41]

SVB's Failure

In 2023, SVB's deposit outflows accelerated as clients burned through cash, according to SVBFG public documents. Concerns increased following a *Financial Times* article that highlighted SVBFG's large securities portfolio.[42] On March 8, SVBFG announced a restructuring of its balance sheet,

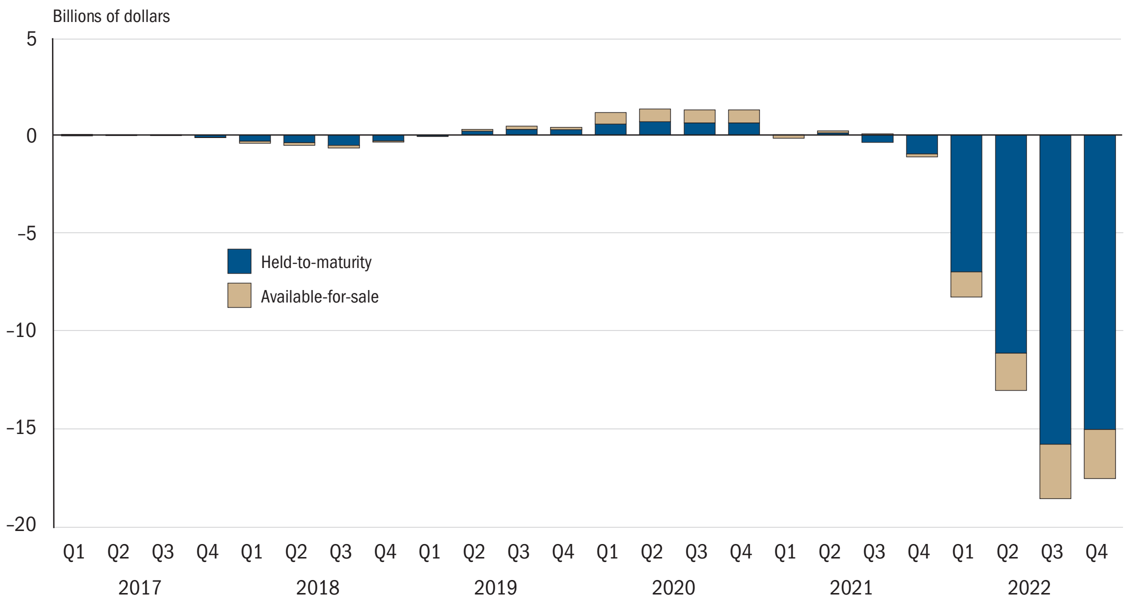
[40] "Unrealized gains or losses" refers to the difference between the value of the security at the time of purchase and the price of the security today, if it were sold on the market. Since HTM securities are meant to be held until maturity, any decline in the value from the purchase date is considered an unrealized loss. While unrealized losses must be disclosed in financial statements, they do not change the assets' value on the balance sheet itself.

[41] Data derived from SVBFG's December 31, 2022, FR Y-9C.

[42] Tabby Kinder, Dan McCrum, Antoine Gara, and Joshua Franklin, "Silicon Valley Bank Profit Squeeze in Tech Downturn

including a completed sale of $21 billion of AFS securities for a $1.8 billion after-tax loss and a planned equity offering of $2.25 billion. SVBFG also guided investors to expect lower growth

Figure 9. Estimated unrealized gains (losses) on SVBFG's investment portfolio securities



Note: Estimated unrealized losses on securities calculated as: (held-to-maturity fair value less held-to-maturity amortized cost) + (available-for-sale fair value less available-for-sale amortized cost). Estimates do not reflect losses related to available-for-sale securities that were transferred to held-to-maturity and do not reflect hedging impacts or tax consequences.

Source: FR Y-9C.

Table 1. Peer comparison, 2022:Q4
Percent

Metric	SVBFG	LBOs
Loans as a percentage of total assets	35	58
Securities as a percentage of total assets	55	25
Held-to-maturity securities as a percentage of total securities	78	42
Total deposits as a percentage of total liabilities	89	82
Uninsured deposits as a percentage of total deposits	94	41
Common equity tier 1 capital as a percentage of total risk-weighted assets	12	10

Note: Values for large banking organizations (LBOs) represent weighted averages of all U.S. bank holding companies and savings & loan holding companies with total assets greater than $100 billion, with the exception of banking organizations in the Large Institution Supervision Coordinating Committee (LISCC) supervisory portfolio.
Source: FR Y-9C and Call Report.

Attracts Short Sellers," *Financial Times*, February 22, 2023, https://www.ft.com/content/0387e331-61b4-4848-9e50-04775b4c3fa7.

and income for fiscal year 2023 amid continued slowdown in tech sector activity.[43] SVBFG noted that the credit rating agencies Moody's and S&P were considering negative ratings actions. In an accompanying message to investors, management cited its expectation for "continued slow public markets, further declines in venture capital deployment, and a continued elevated cash burn" as pressuring 2023 earnings performance.[44] Moreover, on March 8, Silvergate Capital Corporation announced an intention to wind down operations and voluntarily liquidate Silvergate Bank, which further affected depositor sentiment.[45]

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. On the evening of March 9 and into the morning of March 10, SVB communicated to supervisors that the firm expected an additional over $100 billion in outflows during the day on March 10. SVB did not have enough cash or collateral to meet the extraordinary and rapid outflows. The California Department of Financial Protection and Innovation (CDFPI) closed SVB on the morning of March 10 and appointed the FDIC as receiver.

SVBFG's rapid failure can be linked directly to its concentration in uninsured deposit funding from the cyclical technology and VC sector and, as discussed elsewhere in this report, the failure of SVBFG's board and management to manage the liquidity and interest-rate risk that was assumed by SVBFG. SVBFG benefited from the record-high deposit inflows during rapid VC and tech sector growth, supported in part by a period of exceptionally low interest rates. SVBFG invested those deposits in longer-term securities and did not effectively manage the interest-rate risk, including actively removing hedges as rates were rising. At the same time, SVBFG failed to manage the risks of its liabilities, which proved much more unstable than anticipated. Deposit outflows from increasingly cash-constrained tech and VC-backed firms quickly accelerated as social networks, media, and other ties reinforced a run dynamic that played out at remarkable pace.

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43 See SVBFG, Strategic Actions/Q1 '23 Mid-Quarter Update, 17, 19.

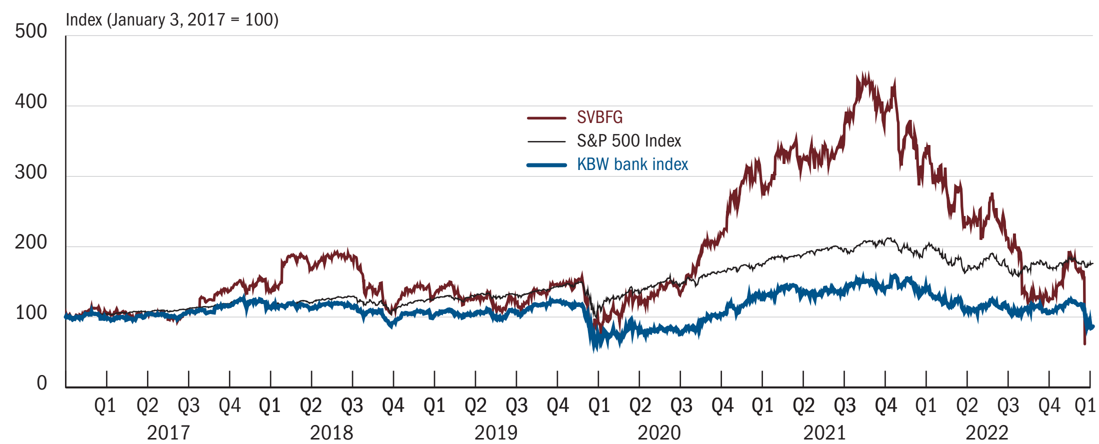
44 SVBFG, Message to Stakeholders Regarding Recent Strategic Actions Taken by SVB, March 8, 2023, https://s201.q4cdn.com/589201576/files/doc_downloads/2023/03/r/Q1-2023-Investor-Letter.FINAL-030823.pdf, 3.

45 Silvergate Capital Corporation, "Silvergate Capital Corporation Announces Intent to Wind Down Operations and Voluntarily Liquidate Silvergate Bank," news release, March 8, 2023, https://ir.silvergate.com/news/news-details/2023/Silvergate-Capital-Corporation-Announces-Intent-to-Wind-Down-Operations-and-Voluntarily-Liquidate-Silvergate-Bank/default.aspx.

External Views

The broader market followed these trends. SVBFG's equity price (ticker "SIVB") peaked on November 15, 2021, and declined through year-end 2022 as tech sector activity slowed, unrealized losses accumulated, and depositor growth slowed (figure 10). Until SVBFG's announced restructuring actions on March 8, 2023, however, SVBFG's equity price had been relatively stable before deteriorating sharply following the balance sheet restructuring. As of March 1, 2023, most equity analysts covering SIVB rated SVBFG a "Buy" (12) or "Hold" (11) vs. "Sell" (1).[46] Data from FINRA, however, show rising short interest beginning in April 2022, which roughly coincides with when SVBFG began to accumulate substantial unrealized losses.[47]

Figure 10. SVBFG stock price performance



Note: All values indexed to 100 on January 3, 2017.

Source: Bloomberg Finance L.P.

The credit rating agencies had a generally stable outlook on both SVBFG and SVB, and ratings stayed stable from 2015 until March 2023. Prior to March 2023, Moody's last changed SVBFG's rating in 2007. As part of the March 8, 2023, announcement of the balance sheet restructuring, SVBFG acknowledged the possibility of negative ratings actions by Moody's and S&P.

46 Source: Bloomberg.

47 See FINRA, Equity Short Interest Data, https://www.finra.org/finra-data/browse-catalog/equity-short-interest/data.

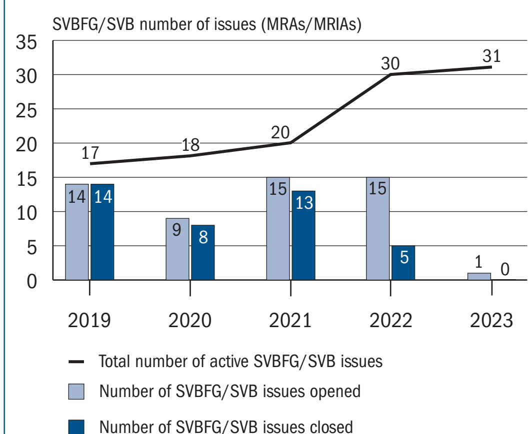
Federal Reserve Supervision

Overview

This section reviews the Federal Reserve's supervisory activities from 2017 through the period of most rapid growth for SVBFG, and the firm's transition from the regional banking organization (RBO) portfolio to the large and foreign banking organization (LFBO) portfolio. The assessment focuses on the primary contributors to the failure of SVB: governance and risk management, liquidity risk, and interest rate risk and investment portfolio management. The scope is not a comprehensive review of all supervisory activity. For example, there was substantial supervisory activity during this period in areas like information technology (IT) that is not a focus of this review.

This report highlights issues supervisors found, how the Federal Reserve addressed those issues with SVBFG management, and the supervisory actions that were taken. This report also highlights issues that should have been detected by the examiners and other actions that could have or should have been taken.

Figure 11. SVBFG/SVB number of supervisory issues (MRAs/MRIAs)



Note: Key identifies series in order from top to bottom. Displays the number of supervisory issues that were opened or closed for SVB or SVBFG, as well as the number that were active at year-end and on March 10, 2023, when SVB was closed. Does not include four consumer compliance issues.

Source: Internal Federal Reserve supervisory databases.

Over this period, supervisors opened and closed a steady stream of supervisory findings in the form of MRAs and MRIAs (figure 11), and SVBFG ended 2022 with 31 open supervisory findings (see table 2). From 2019, the Federal Reserve issued 54 supervisory findings to SVBFG.

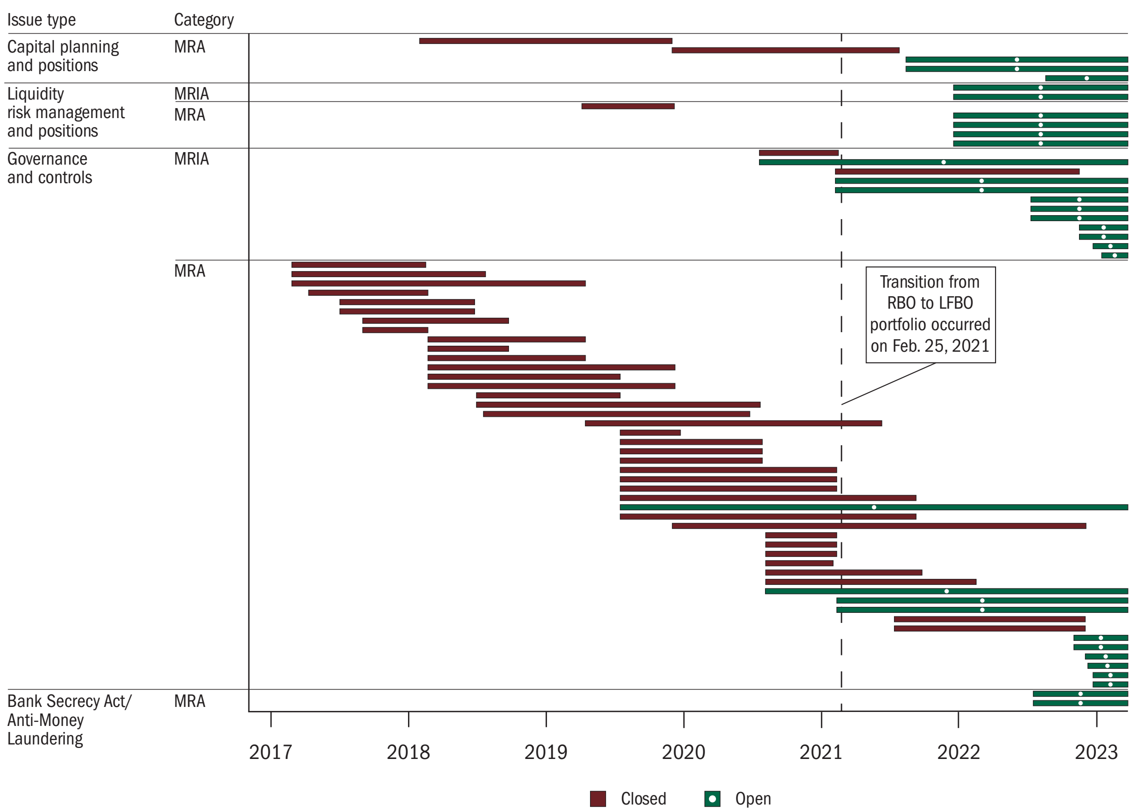
The timing to close a supervisory finding varies considerably based on the specific issues being addressed and the necessary time to remediate them (figure 12).

Table 2. Open supervisory issues (MRAs/MRIAs) at SVBFG/SVB, by category and date opened

Date opened	Category	Issue
Capital planning and positions		
8/17/2021	MRA	Governance process for lending procedures
8/17/2021	MRA	Loan risk rating granularity
8/19/2022	MRA	Allowance for credit loss (ACL) stress methodology
Liquidity risk management and positions		
11/2/2021	MRIA	Enhanced liquidity risk management project plan
11/2/2021	MRIA	Weak risk management and audit oversight of liquidity
11/2/2021	MRA	Contingency funding plan
11/2/2021	MRA	Deposit segmentation
11/2/2021	MRA	Internal liquidity stress testing design
11/2/2021	MRA	Liquidity limits framework
Governance and controls		
6/5/2019	MRA	Systems/technology second line of defense
6/3/2020	MRIA	Vulnerability remediation
6/3/2020	MRA	Identity access management
2/11/2021	MRIA	IT asset management
2/11/2021	MRIA	Vendor management
2/11/2021	MRA	Data governance
2/11/2021	MRA	Data protection
5/31/2022	MRIA	Board effectiveness
5/31/2022	MRIA	Internal audit effectiveness
5/31/2022	MRIA	Risk-management program
10/7/2022	MRIA	Identity and access management governance and oversight
10/7/2022	MRIA	Privileged access management (PAM)
10/7/2022	MRA	Identity access management lifecycle
10/7/2022	MRA	Identity access management logging, monitoring, and detection
11/15/2022	MRA	Interest rate risk (IRR) simulation and modeling
11/21/2022	MRA	Trust and fiduciary services (T&FS) oversight and risk management
12/21/2022	MRIA	Gramm–Leach–Bliley Act 501(b) information security program
12/21/2022	MRA	Cybersecurity risk assessment
12/21/2022	MRA	Systems development/deployment methodology and practices
1/31/2023	MRIA	Third-party risk management governance and risk identification
Bank Secrecy Act/Anti-Money Laundering		
6/24/2022	MRA	Oversight of compliance monitoring and testing
6/24/2022	MRA	Sanctions country of interest risk management

Note: Supervisory issues include MRAs and MRIAs (highlighted). List includes supervisory issues open as of March 10, 2023, for both SVB and SVBFG. "Date opened" indicates the date the issue was communicated to the firm. Does not include four open consumer compliance issues.
Source: Internal Federal Reserve supervisory databases.

Figure 12. Timeline of SVBFG/SVB supervisory issues (MRAs/MRIAs)



Note: Includes MRAs and MRIAs opened from 2017 to 2023 on SVB and SVBFG. Does not include issues opened prior to 2017 or consumer compliance issues. Issue status reflects the status of each supervisory issue when the firm was closed on March 10, 2023.

Source: Internal Federal Reserve supervisory databases.

Supervisory Portfolio Structure and Supervisory Activities

Supervisory Portfolio Structure

The Federal Reserve categorizes supervised firms into portfolios for which supervisory activities are scaled to a firm's risks, size, complexity, and business activities and the regulatory requirements applicable to a given firm. This report focuses on two of those portfolios:

- Regional banking organizations (RBOs): U.S. firms with total assets between $10 billion and $100 billion
- Large and foreign banking organizations (LFBOs): U.S. firms with total assets of $100 billion or more and all foreign banking organizations (FBOs) operating in the U.S. regardless of size[48]

[48] The eight U.S. global systemically important banks are supervised in the Large Institution Supervision Coordinating Committee (LISCC).

RBO supervision focuses on the ability of firms within the portfolio to operate in a safe and sound manner and meet the needs of the consumers and businesses in their communities and regions. RBO supervision is delegated to the Reserve Banks, with oversight from the Board. For each supervised firm, Reserve Banks designate a member of supervisory staff as a central point of contact (CPC), who is responsible for supervision of the firm. RBO supervision combines continuous monitoring and firm-specific, point-in-time exams.

For the RBO portfolio, the frequency and intensity of continuous monitoring and institution-specific exams is set in part through the Bank Exams Tailored to Risk (BETR) program, designed to leverage data and surveillance to reduce staffing and burden on firms deemed low risk and to enhance supervision of high-risk firms.[49] RBO supervision includes the regional banking organization management group (RBOMG). The RBOMG is a Federal Reserve System committee designed to foster communication across Reserve Banks to promote consistent and effective implementation of supervisory policies and assessments.

LFBO supervision is also delegated to the Reserve Banks but with greater Board staff involvement on substantive topics than in RBO supervision. Reserve Banks select CPCs and assign dedicated supervisory teams (DSTs) who are responsible for supervision of firms in their respective Districts. The supervisory plans for LFBO firms are based on portfolio-wide LFBO Management Group (LFBOMG) principles.

LFBO supervision combines continuous monitoring, firm-specific examinations, and horizontal target examinations. Horizontal exams use the same examination scope across multiple firms, allowing for a comparison of risks and risk-management practices. Additionally, the LFBOMG discusses supervisory ratings across firms in the portfolio at least annually. While discussed with the LFBOMG, supervisory ratings decisions are technically the responsibility of Reserve Banks. In practice, ratings are agreed on by both the individual Reserve Bank and Board staff. The same Board staff are involved in Reserve Bank oversight evaluations discussed in the next section.

While there are some similarities in the supervision of RBOs and LFBOs, there are also important differences. Supervision of large firms, including SVBFG since 2021, focuses on enhancing the resiliency of a firm to lower the probability of its failure or inability to serve as a financial intermediary and to reduce the impact of its failure on the broader financial system.[50] The largest institutions are subject to enhanced prudential standards (EPS) as a result of their size or complexity

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49 Board of Governors of the Federal Reserve System, "Bank Exams Tailored to Risk (BETR)," SR letter 19-9 (June 3, 2019), https://www.federalreserve.gov/supervisionreg/srletters/sr1909.htm.

50 Board of Governors of the Federal Reserve System, "Consolidated Supervision Framework for Large Financial Institutions," SR letter 12-17/CA letter 12-14 (December 17, 2012), https://www.federalreserve.gov/supervisionreg/srletters/sr1217.htm.

and, in some cases, their systemic importance. Continuous monitoring is a more important supervisory activity for LFBOs.

In July 2018, the Board raised the threshold for heightened supervision by the LFBO portfolio from $50 billion to $100 billion to track the new EGRRCPA thresholds. This delayed application of heightened supervisory expectations to SVBFG by at least three years.

Reserve Bank Oversight

Within the Board, the Divisions of Supervision and Regulation (Board S&R) and Consumer and Community Affairs (DCCA) assess the effectiveness of the Reserve Banks' execution of supervisory authority delegated under the Federal Reserve Act. The Federal Reserve Act requires the Board to "at least once each year, order an examination of each Federal Reserve Bank."[51] Annually, Board S&R staff, jointly with DCCA staff, provide annual assessment letters with respect to supervision to the Reserve Bank presidents. The Reserve Bank annual assessment letters provide performance ratings for the Safety and Soundness and Consumer Compliance supervision programs as well as individual supervision portfolio and supporting function ratings. Possible ratings include "Strong," "Effective," "Marginally Effective," and "Requires Improvement."

Since 2019, the ratings issued by Board S&R and DCCA to FRBSF with respect to its RBO and LFBO supervision programs were all "Strong" or "Effective" (table 3). Note that the 2018 ratings were done under a different framework. For the combined safety-and-soundness rating, FRBSF received a "Strong" rating in 2018.

Table 3. Ratings issued to FRBSF by Board staff for FRBSF's supervisory program

Year	RBO supervisory program rating	LFBO supervisory program rating
2022	Effective	**Strong**
2021	**Strong**	**Effective**
2020	**Strong**	Effective
2019	**Effective**	Effective
2018	**Safety-and-soundness program rating: Strong**	

Note: The ratings in bold are the years when supervision of SVBFG was considered in the ratings issued. Prior to 2019, Board staff did not communicate individual portfolio ratings; rather, it provided a safety-and-soundness program rating that included all portfolios.
Source: Internal Federal Reserve oversight materials.

In 2022, Board S&R staff noted, with respect to the SVBFG transition, that supervisory planning had been effective and necessarily agile as the dedicated supervisory team had focused the supervisory plans on key knowledge gaps, primarily risk management, board effectiveness, and internal audit. Board S&R staff also noted that the DST demonstrated superior ability and that the SVBFG transition from RBO to LFBO had required the team and FRB leadership to navigate a complex supervisory profile.

[51] 12 U.S.C. § 485.

Regional Banking Organization (RBO) Supervision

Board S&R staff maintain the *Commercial Bank Examination Manual,*[52] which outlines examination objectives and procedures for examiners to follow in evaluating the safety and soundness and compliance with banking laws of state member banks. Additionally, the Federal Reserve Board has issued supervisory guidance letters applicable to regional banks that examiners use to assess firm risks, including financial, operational, legal and compliance risks as well as risk management. Much of the relevant guidance for regional firms today was developed following the Global Financial Crisis and the Dodd-Frank Act, as modified in 2018 by EGRRCPA and in 2019 by the Board's tailoring rule and related rulemakings.[53]

According to Board procedures for the RBO portfolio, the supervisory plan should demonstrate that the supervisory concerns identified through the risk assessment process and the deficiencies noted in previous examination or inspection activities are, or will be, addressed. The plan should also identify financial and managerial strengths and emerging risks. Supervision is then tailored to reflect the levels of risk present and minimize regulatory burden for the bank. The BETR model provides guidance on allocation of examination hours so that resources spent on low-risk firms can be limited, shifting regulatory attention and Federal Reserve examiner resources to high-risk firms.[54]

CPCs schedule risk-based reviews to cover unique risks of a firm. Continuous monitoring activities include regular meetings with institution senior management, analysis of key internal management reports and other internal and external information, leveraging control functions (i.e., internal audit, internal loan review, and other risk-management functions), and coordination with other regulators. Any supervisory activity can result in changes to supervisory ratings and the issuance of supervisory findings, such as MRAs and MRIAs. Annually, the Federal Reserve assigns supervisory ratings to RBO institutions according to the RFI rating system.

Large and Foreign Banking Organization (LFBO) Supervision

LFBO supervisory teams are expected to develop and maintain supervisory plans that are current and tailored to a firm's changing risks and issues, as modified by EGRRCPA in 2018, the Board's 2019 tailoring rule, and related rulemakings, including accounting for the activities of other primary and functional supervisors in which they are participating. LFBO supervisory plans include horizontal examinations, allowing for comparison of practices across multiple firms in the portfolio. Annual horizontal examinations include the horizontal capital review (HCR), horizontal liquidity

[52] Board of Governors of the Federal Reserve System, *Commercial Bank Examination Manual*, https://www.federalreserve.gov/publications/supervision_cbem.htm.

[53] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010). Economic Growth, Regulatory Relief, and Consumer Protection Act, Pub. L. No. 115-174, 132 Stat. 1296, 1356, § 401(a) (2018) (codified at 12 U.S.C. § 5365).

[54] SR letter 19-9.

review (HLR), and the horizontal cybersecurity review, which inform the capital, liquidity, and governance and control ratings. Supervisory plans are expected to be updated to reflect changes in a firm's activities. These changes are informed by the DST's continuous monitoring activities.

Annually, the Federal Reserve rates LFBO holding companies according to the LFI rating system.[55] It is an evaluation of whether a firm possesses sufficient financial and operational strength and resilience to maintain safe-and-sound operations and comply with laws and regulations.

Under the LFI rating system, a firm must be rated "Broadly Meets Expectations" or "Conditionally Meets Expectations" for each of the three components (capital planning and positions, liquidity risk management and positions, and governance and controls) to be considered "well managed" in accordance with various statutes and regulations. A firm is considered to be in "satisfactory" condition if all component ratings are either "Broadly Meets Expectations" or "Conditionally Meets Expectations."

One distinctive component of large bank supervision is a focus on continuous monitoring events, which are activities that occur on a regular (e.g., weekly, monthly, or quarterly) or ad hoc basis throughout the supervisory cycle and include meetings with management, reviews of firm-provided management information systems (MIS) and risk reports, analyses of public and confidential supervisory information, and meetings with other supervisors.[56] Continuous monitoring is included in the overall supervisory plan. The objective of continuous monitoring is to gather and analyze information to develop and maintain a current understanding of the organization and its risk profile and to monitor changes in risk-management practices, control functions, and business strategies. Monitoring also allows for early signals on risk that can be acted on or escalated. Often, information gleaned from monitoring activities results in the DST adjusting or clarifying scope objectives for upcoming reviews or making other changes to the supervisory plan.

Ratings

Federal banking regulators, including the Federal Reserve System, use a number of different rating systems for different types of financial institutions. For the assessment of SVBFG and SVB, this report focuses on the three most relevant. Each includes a specific set of components and a numeric scale to provide comparisons across similar financial firms (table 4).

- **CAMELS ratings system** applies to insured depository institutions (IDIs), including SVB.
- **RFI ratings system** applies to holding companies with total consolidated assets below $100 billion, including SVBFG until 2021.

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[55] SR letter 19-3.

[56] MIS reports may contain confidential business information, which is generally not available to the public.

- **Large financial institution (LFI) rating system** applies to holding companies with total consolidated assets above $100 billion, including SVBFG from 2021.

Table 4. Supervisory ratings systems

Rating system	Applicable entity	Ratings and components	Scale
Holding companies			
LFI rating system—Large financial institution rating system	• Bank holding companies (BHCs) and certain saving and loan holding companies (SLHCs) with total consolidated assets > $100 billion • U.S. intermediate holding companies (IHCs) of foreign banking organizations (FBO) with total consolidated assets > $50 billion	Three components: • Capital planning & positions • Liquidity risk management & positions • Governance & controls	Each LFI component is rated on a four-point, non-numeric scale. There are no composite or subcomponent ratings. • Broadly Meets Expectations (BME) • Conditionally Meets Expectations (CME) • Deficient - 1 (D-1) • Deficient - 2 (D-2)
RFI rating system	• BHCs and certain SLHCs with total consolidated assets < $100 billion • For noncomplex holding companies with assets at or below $3 billion, only the R and C components are applied. (See SR letter 13-21.)	Three component ratings (RFI), a composite rating (C), and a depository institution (D) component rating. Under the RFI components are subcomponent ratings. The composite rating is not an arithmetic average. Example: RFI/C (D) • **R**isk management: – Board and senior management oversight – Policies, procedures, and limits – Risk monitoring and management information systems – Internal controls, including internal audit • **F**inancial condition: – Capital adequacy – Asset quality – Earnings – Liquidity • **I**mpact to insured depositories from nonbank subsidiaries	• All component and subcomponent ratings (except I) are rated on a five-point numeric scale: – 1 – Strong – 2 – Satisfactory – 3 – Fair – 4 – Marginal – 5 – Unsatisfactory • **I** component: – 1 – Low likelihood of significant negative impact – 2 – Limited... – 3 – Moderate... – 4 – Considerable... – 5 – High...
Insured depository institutions/banks			
CAMELS rating system—Uniform financial institutions rating system used by the Federal Financial Institutions Examination Council (FFIEC) agencies.	• All insured depository institutions	Banks are rated on each of the following components, and composite ratings for safety and soundness and risk management. The composite rating is not an arithmetic average. Example: CAMELS/C (Risk Management) • Capital adequacy • Asset quality • Management • Earnings • Liquidity • Sensitivity to market risk	Each of the components and composites is rated on a 1 to 5 scale: • 1 – Strong • 2 – Satisfactory • 3 – Less than satisfactory • 4 – Deficient • 5 – Critically deficient

Transition of SVBFG from Regional Banking Organization (RBO) Supervision to Large and Foreign Banking Organization (LFBO) Supervision

Based on the Board's 2019 tailoring rule, SVBFG shifted into the LFBO portfolio in February 2021 as the firm crossed the $100 billion threshold, which meant that the firm shifted from the lower-intensity supervision of the RBO program to the heightened standards of LFBO supervision.

The transition of SVB from the RBO portfolio to the LFBO portfolio lacked a defined plan and process. As a result, supervisory plans and staffing of the new team came after the transition, rather than in the period leading up to it. Staff describe a sharp shift and "cliff effect" as SVBFG rapidly went from RBO supervision to LFBO supervision, requiring building of a new supervisory team, implementation of horizontal examination processes, establishment of more intense continuous monitoring routines, and phasing in of EPS.

SVBFG moved into the LFBO portfolio because of extraordinary growth over a short period of time. As detailed in subsequent sections, the firm was not prepared for EPS. When SVBFG crossed the threshold, RBO supervisors were in the process of completing their annual ratings cycle. The FRBSF RBO and new LFBO teams staff agreed to a transition period while the RBO team completed ratings and the new LFBO DST was being formed within FRBSF. The understanding was that LFBO would take over supervision of SVB at the end of the RBO supervisory cycle in July 2021.

According to interviews, one reason supervisors did not increase supervisory intensity as SVBFG grew toward the $100 billion threshold is that there was concern from policymakers and senior leadership at the Board that supervisors would "pull forward" the EPS requirements before SVBFG met the threshold. The Board of Governors' implementation of EGRRCPA created stark differences in the RBO and LFBO supervisory programs and constrained the ability to prepare a firm for the transition between the two portfolios.

The accommodative supervisory stance and examination pause during COVID-19 amplified the impact of the transition, resulting in the cancellation of examinations during a period of rapid growth for SVBFG.

Policy Stance

In 2018, the Board confirmed its policy stance on supervisory guidance, issuing "guidance on guidance," which publicly clarified the role of supervisory expectations as compared to laws or regulations.[57] In April 2021, the Board adopted a final rule to codify the long-standing principle that

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[57] SR letter 18-5.

supervisory guidance does not have the force and effect of law, but rather outlines expectations and appropriate practices for a particular subject area or activity.[58]

Over the same period, under the direction of the Vice Chair for Supervision, supervisory practices shifted. In the interviews for this report, staff repeatedly mentioned changes in expectations and practices, including pressure to reduce burden on firms, meet a higher burden of proof for a supervisory conclusion, and demonstrate due process when considering supervisory actions. There was no formal or specific policy that required this, but staff felt a shift in culture and expectations from internal discussions and observed behavior that changed how supervision was executed. As a result, staff approached supervisory messages, particularly supervisory findings and enforcement actions, with a need to accumulate more evidence than in the past, which contributed to delays and, in some cases, led staff not to take action.

It is difficult to judge how these collective changes in policy affected the oversight of SVBFG, but a review of the historical record and staff interviews suggest that they played a role. Although the stated intention of these policy changes was to improve the effectiveness of supervision, the changes also led to slower action by supervisory staff and a reluctance to escalate issues. For example, staff informed SVBFG about a forthcoming MOU around information technology in 2021, but staff subsequently dropped the matter because they felt it would not be pursued by policymakers at that time.

Resources

In 2017, the Federal Reserve System (FRS) adopted a different budget approach for the System's business lines, including Supervision and Regulation (S&R). The budget approach emphasized making trade-offs to align expenditures with strategic objectives, notably by shifting resources toward areas that were viewed as strategic priorities. The addition of resources in the supervision area required the endorsement of Board S&R.

For the Federal Reserve System as a whole, resources did not grow with the banking industry (figure 13). From 2016 to 2022, banking sector assets grew 37 percent (nominal terms), while FRS supervision headcount declined by 3 percent. This contrasts with the period after the Global Financial Crisis in 2008–09 when the Federal Reserve made fundamental changes to its supervision program to enhance effectiveness and consistency, including steady growth of staffing from 2009 through 2016.

It is difficult to quantify the impact of this shift, but supervisory coverage of SVBFG declined while SVBFG was in the RBO portfolio. For SVBFG in particular, supervision resources declined despite the firm's rapid growth and increased risk (figure 14). In the 2017 to 2019 period, supervisory

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[58] Role of Supervisory Guidance, 86 Fed. Reg. 18,173 (April 8, 2021), https://www.federalregister.gov/documents/2021/04/08/2021-07146/role-of-supervisory-guidance.