Supervision + Credit
Internal Memorandum

Date: December 1, 2022

To: Redacted Division of Supervision and Regulation, BOG

From: Redacted Dedicated Supervisory Team Lead, FRB-SF

CC: Redacted FRB-SF
Redacted Large Institution Supervision, FRB-SF
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Subject: Recession Readiness – Silicon Valley Bank (SVB)

Based on the dedicated team's supervisory work, SVB's key exposures leading into a recession are centered on liquidity, credit, and operational risk. For each of these three areas, we highlight below: (i) the factors that drive the exposure; (ii) the work undertaken to prepare for a recession; and (iii) supervisory coverage of these areas.

LIQUIDITY

SVB's liquidity presents the greatest exposure in a recession. Year to date 2022, SVB has already incurred $49 billion, or 12.5%, of net client balance (i.e., deposits + off-balance sheet investments) outflows. The magnitude of these outflows has prompted management to activate certain aspects of its contingency funding plan. In the short-term, a higher cost of funds represents the most direct impact of SVB experiencing a recession. This is already reflected in a substantial decline in forecasted ROE for 2023. The longer-term impact could be material charges against earnings if SVB must liquidate its securities portfolio to fund unexpected net deposit outflows.

Notable points related to factors driving SVB's liquidity risk exposure:

1. SVB's funding base is primarily supported by tech and life science clients at various stages of growth. **These clients continuously "burn" cash to fund operations and growth, while at the same time are dependent on future fundraising for financial support**. Economic uncertainty and decline in market valuations have resulted in both higher cash burn rates, as well as lower fundraising driven by fewer initial public offering (IPOs) and reduced Venture Capital (VC) funding. If cash burn remains elevated and fundraising stays lackluster, SVB's funding base will continue to experience sizeable net outflows.
2. SVB's liquidity buffer to fund deposit outflows is comprised of cash reserves and U.S. government and agency investment securities. The current interest rate environment has resulted in material unrealized losses in SVB's securities portfolio. While SVB has been able to rely on short term repo and FHLB borrowings to cover outflows and maintain cash reserves, any disruption in these markets or

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issues with existing monetization mechanisms will cause major challenges for management to monetize its securities portfolio without a negative earnings and capital impact.[1]

Actions taken to prepare for a recession:

1. Given its business model, **SVB recognized early the need to maintain a substantial liquidity buffer and intentionally maintained a loan to deposit ratio below 40%.** SVB deployed the proceeds of prior years' deposit inflows into the securities portfolio rather than pursue loan growth.
2. The net outflows incurred in 2022 has caused SVB to use its liquidity buffer, but it has also prompted management to develop new strategies should outflows continue. Management has identified the following 4 actions if recession-related liquidity risks persist: (i) incent clients to shift monies from off-balance sweep money market accounts to on-balance sheet deposit products; (ii) borrow against the securities portfolio through repos and FHLB lines; (iii) obtain unsecured, term wholesale funding through brokered deposits; and (iv) liquidate investment securities at a loss.
3. SVB has enacted actions referenced in items (i) and (ii) above and is considering item (iii). While all three actions increase SVB's cost of funds, the goal is to avoid selling substantial amount of securities at a loss or tainting the portfolio by selling HTM securities. The firm is also considering a restructure of its investment portfolio by selling lower-yielding securities and reinvesting proceeds at current yields. This is early in the planning stage and may involve a new accounting standard that allows for a one-time transfer from AFS to HTM for hedging purposes.
4. The firm's 2023 baseline forecast reflects a 16% deposit decline despite further plans to move clients' balances from off-balance sheet products to on-balance sheet deposits. The deposit decline, in conjunction with higher funding cost associated with deposit mix shifts and increased wholesale funding, is expected to drive ROE down to 8.6% from mid-to-high teens of the last several years.
5. Supervisory Coverage for 2023:
    a. DST is coordinating with SVB's external auditors on the propriety of the potential investment portfolio restructure relative to the most current hedge accounting standard.
    b. SVB will be included in the 2023 HLR, which will assess liquidity buffer monetization and composition.
    c. The 2023 Sup Plan also includes an Interest Rate Risk review, which will assess the firm's deposit modeling under various rate scenarios.

<u>CREDIT</u>

SVB's loan portfolio presents some loss exposure in a recession, but management has mitigated a substantial amount of credit risk through strategic changes in portfolio composition over time, establishing an effective Special Assets function, and pro-active increases in loan loss provisions.

Notable points related to factors driving SVB's credit risk exposure:

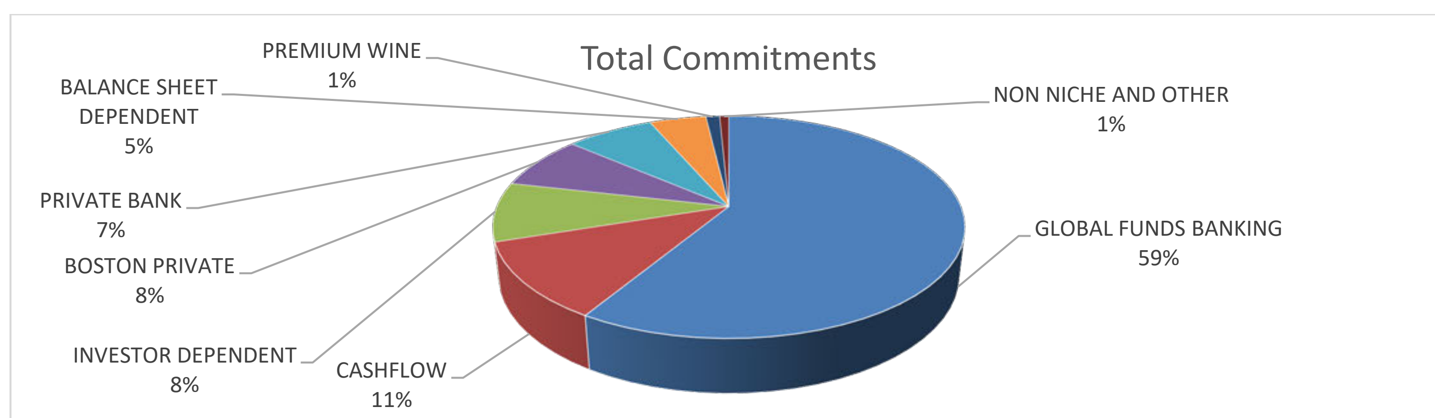
1. ***High risk investor-dependent (ID) loans represent less than 10% of loan portfolio***: ID loans present high inherent credit risk because these borrowers have yet to demonstrate sustained profitability. A severe recession and sustained slowdown in VC funding and IPOs will drive up defaults and losses. SVB's ID portfolio, however, accounts for only 8.6% of the total loan book but 44.5% of the Allowance

[1] 76% of the $124 billion securities portfolio is designated Held to Maturity (HTM). Total unrealized losses in the securities portfolio are $13.4 billion against $16.9 billion of tier 1 capitalh

for Credit Losses (ACL). Losses have come mainly from the early-stage portion of the ID portfolio that represents only 2.64% of the total loan book.

2. ***Global Funds Banking (GFB), i.e., Capital call lines of credit, accounts for roughly 60% of the total loan book but have experienced minimal historical losses over three decades.*** Fulfillment of limited partner (LP) commitments is the repayment source for these credits, and the LPs associated with SVB's portfolio are comprised of institutional investors, most notably pension funds, college endowments, and insurance companies. Give the granularity and diversity of the LPs,[2] widespread defaults are unlikely even in a recession. Losses are most likely to come from idiosyncratic events related to single funds (e.g., fraud or fund embezzlement).

The following exhibit illustrates how the lower-risk GFB loans represent the largest portion (59%) and the higher -risk ID loans represent a relatively smaller portion (8%) of SVB's total portfolio:



Actions taken to prepare for a recession:

1. In Q2 2022, SVB increased provision expenses specific to its capital call lines of credit such that the ACL for this portfolio is up from 18 basis points to 22 basis points. This current ACL level exceeds the single largest annual loss.
2. Over the course of several years, **SVB management has purposely restructured its loan portfolio composition, such that the higher-risk ID segment has progressively been reduced and the lower-risk GFB segment increased in size.** Prior to the 2008 financial crises, the ID segment accounted for as much as 35% of the total loan book. ID loans to early-stage companies, who had yet to generate profit, accounted for as much as 15% of the total loan book. For emphasis, and as noted above, **the ID portfolio currently represents less than 9% of the total loan book, and early-stage ID loans represents less than 3% of the total loan book.**
3. **SVB management has maintained a highly effective Special Assets Advisory function** as a key mitigating control to the high inherent credit risk associated with the ID portfolio**.** Given lender liability considerations**, the Special Assets Advisory function** is not directly involved in sale of company decisions in the event of default, but they **are actively engaged on matters related to loan and collateral structure so that SVB is repaid prior to any new equity investments and outside of claw back periods in bankruptcy filings.**

[2] SVB supervision staff recommended SVB management analyze LP concentrations in 2020. This analysis provided an enhanced level of risk reporting to quantify the degree of LP diversification in SVB's GFB portfolio.

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4. Supervisory Coverage for 2023:
    a. The DST completed an asset quality review in 3Q 2022 and confirmed that credit practices remain prudent, and ACL is adequate.
    b. The 2023 Sup Plan includes two asset quality reviews, which will dive into material portfolios most prone to a recession.
    c. SVB is included in the 2023 HCR, which will include credit workstreams to assess the firm's losses under stress and impact on capital adequacy.

OPERATIONS

While not a risk that is specifically connected to a recession, SVB's operations risk has been an exposure that examination staff has highlighted over multiple supervisory cycles. SVB's growth in balance sheet size, complexity and geographic footprint has outpaced their infrastructure investments. Several findings have been cited related to information technology, information security, and enterprise risk management. In a recession, SVB could face earnings pressures that prompt decisions to reduce overhead. These decisions would need to be thoughtfully implemented. The dedicated team will continue to monitor this to ensure board and senior management adequately prioritize remediation of risk management and control gaps amid the cost reduction pressure.

Notable points driving SVB's operational risk exposure:

1. SVB has clients and offices across the world, including China, Europe, and the Middle East. Payment system activities frequently represent billions of dollars in daily transactions. SVB's information technology platforms have been developed in a decentralized manner. **Risk reporting off these systems have not been effective with various supervisory findings cited over multiple examinations**.
2. SVB's board of directors has not effectively challenged or held management accountable for operational risk management. Historically, SVB has relied heavily on outsourced professional services, and this reliance has created issues with inconsistent and ineffective operational controls.

Actions taken to prepare for a recession and longer-term resilience:

1. **SVB has committed over $1 billion over the course of the last two annual budget cycles specifically towards information technology and enterprise risk management.** While the return on these budgetary commitments has yet to fully realized, SVB leadership acknowledges that addressing the deferred maintenance is a high priority.
2. **SVB's board collectively has recognized the need to upgrade the quality of its directors and intensify its oversight.** In the past year, SVB has appointed two new external directors, both with large bank executive officer risk management experience. Additionally, SVB has replaced its Chief Risk Officer. Lastly, SVB has revamped its executive officer incentive compensation program with increased focus on risk management rather than company financial performance.
3. Supervisory Coverage for 2023:
    a. Routine Continuous Monitoring specifically targeted on how SVB's Information Technology and Risk Management infrastructure is being built within an effectiveness and budgetary context
    b. Routine Continuous Monitoring specifically targeted on remediation of MRIAs related to effectiveness of board oversight and three lines defense risk management

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