



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS



MARCH 13, 2023

Silicon Valley Bank & Broad Banking Stress

Overview / conclusions

Please note this deck was released on March 13th. Please reach out to your Verus consultants for up-to-date views beyond this date.

As new information has been received, it appears this situation is less about SVB specifically and more about broad interest rate mismatches in the banking system which have led to losses on bank balance sheets—many of which have not been widely recognized by investors due to their accounting treatment. The greatest risk to the financial system at this point appears to be a potential shock to confidence in banks. We touch on these views later in this document.

- Silicon Valley Bank (SVB) failed, and was then transitioned to government ownership on March 10th. SVB is among the top 20 largest banks in the United States, with approximately 1% of all U.S. domestic bank deposits. New York regulators closed Signature Bank shortly thereafter, and there may be additional closures as conditions evolve.
- The SVB meltdown was driven by a number of factors, including: 1) The repricing of assets on their balance sheet (largely as a result of increase in interest rates) that led to forced sale of these assets, 2) The need to fund tech company cash withdrawals, which increased and led to a run on the bank
- Unlike the situation of the 2008-2009 Global Financial Crisis, SVB assets appear to generally be high quality. The bank insolvency was largely due to a combination of: high quality assets losing value due to recent interest rate rises, and a loss in confidence in the bank (i.e. bank run).
- The SVB liquidation may include the following direct impacts:
 - The U.S. Treasury, Federal Reserve, and FDIC have jointly guaranteed that SVB depositors will receive all of their funds as the U.S. government steps in to stem the crisis. In the United Kingdom, HSBC has agreed to acquire the SVB UK division.
 - Companies may have lines of credit or funding agreements in place allowing them to fund growth or operations. These companies may experience short-term (or longer) cash flow or financing problems. **This includes venture capital and other private markets exposures.**

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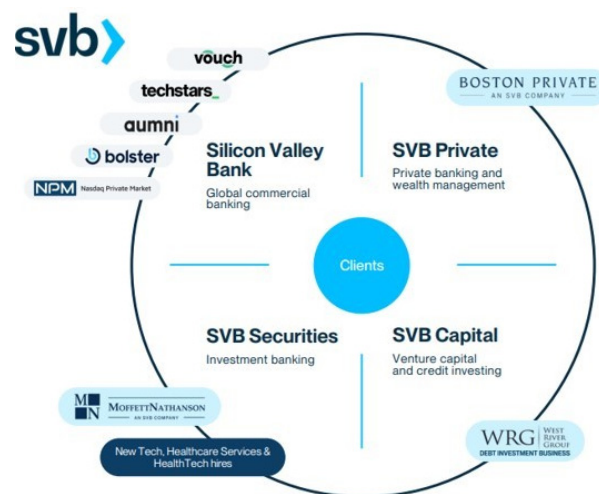
- The SVB liquidation may have the following indirect impacts:
 - Challenges in the private markets space. The importance of the role of SVB in the venture and private markets space is difficult to exaggerate, and disruption of this kind may create challenges for those who have historically operated in that asset class. It may take time for the ecosystem to adjust.
 - A focus by banks on de-risking their balance sheets. This could cause challenges in the market for higher risk assets currently held on those balance sheets.
 - More generally, a loss of market confidence and fears of contagion, even if those fears are not realized, may impact the prices of risky assets broadly, and may fuel a market drawdown.
- While the full impact remains to be seen, the immediate impacts to clients with private markets portfolios appear to have largely been mitigated with the government backstop to ensure all deposits held at SVB will be made accessible.
- It is important to note that the broader risks to the financial system that SVB poses likely will revolve around *sentiment* rather than *structural issues with bank assets*. The way in which investors react in the coming weeks could determine the impact on markets. As is typical of the environment banks operate in, banks that stand on good financial footing can quickly be at risk if confidence around the bank turns sour.

SVB overview

Silicon Valley Bank at a glance

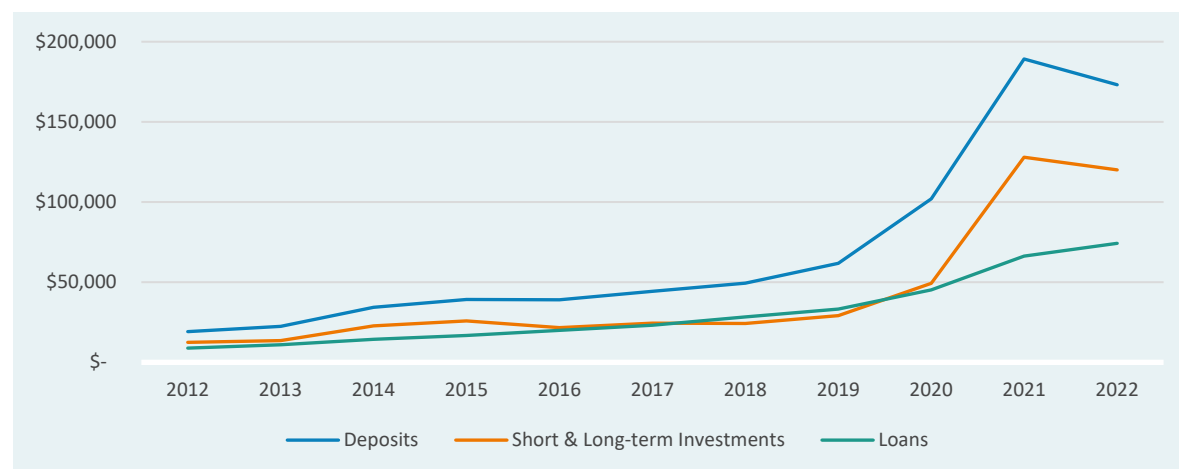
- Silicon Valley Bank is among the largest 20 banks in the United States, with over \$200 billion of assets, and \$25 billion of market capitalization. SVB clients were primarily in the technology and life science / healthcare industries as well as global venture capital firms and their portfolio companies. However, over the last few years, SVB grew rapidly by raising deposits, lending on homes, financing businesses, and backing venture capital funds raised by the technology sector via a fund of funds structure. It also provided private banking services to these same end clients.
- Silicon Valley Bank matters to markets because approximately 50% of all United States venture backed start-ups have exposures to SVB. Further, a significant number of private markets funds, in particular venture capital funds, use SVB products and services. SVB has rapidly impacted the broader financial markets via its client base in the venture capital and technology sectors, within its Global Fund Banking business. SVB provided lines of credit, subscription lines and cash / treasury / deposit management to a significant portion of the venture capital ecosystem. The Global Fund Banking business line constituted more than 50% of SVB's lending business, \$40+ billion on a \$70+ billion lending book.

SVB OPERATED 4 PRINCIPAL BUSINESS LINES



Source: Silicon Valley Bank

SILICON VALLEY BANK SELECTED ASSETS & LIABILITIES (\$ MILLIONS)



Source: Financial Times, Bloomberg

What happened?

- The nature of banking is to borrow money (deposits) from clients at one interest rate, and then to lend it (in loans, or in the market) at a higher interest rate. The difference provides profit to the bank.
- In the low-interest-rate environment experienced over the past 10 years, this has been difficult. Many banks have had to take more risk than ideal, for little reward, with excess deposits.
- The investments that SVB made with this deposit money have suffered losses due to rising rates and concerns over credit risk. Because those investments have much higher interest rate sensitivity (duration) than the deposits do, those losses have been outsized. Some of those losses were crystallized when the bank sold assets. This caused a loss of confidence in SVB, and that led to the bank's collapse.
- In March 2023, SVB filed an 8-K disclosing that they had launched a \$2.25 billion share sale after suffering a significant loss on its portfolio of U.S. Treasuries and mortgage-backed securities.
- SVB completed the sale of substantially all of its Available-For-Sale (AFS) securities portfolio. They sold approximately \$21 billion of securities, which will result in an after-tax loss of approximately \$1.8 billion in the first quarter of 2023.
- The FDIC has stepped in and will attempt to ensure an orderly transition, alongside the Federal Reserve and U.S. Treasury. In the United Kingdom, HSBC has agreed to acquire the SVB UK division.

SVB FINANCIAL CHANGES

Updated FY'23 outlook

Outlook includes expected changes to Fed Funds rates¹

Business driver	FY'22 results	1/19/23 FY'23 vs. FY'22 outlook	Current FY'23 vs. FY'22 outlook (excludes AFS sale)
Average loans	\$70.3B	Low double digits % growth	High single digits % growth
Average deposits	\$185.7B	Mid single digits % decline	Low double digits % decline
Net interest income ²	\$4,522M	High teens % decline	Mid thirties % decline
Net interest margin	2.16%	1.75-1.85%	1.45% - 1.55%
Net loan charge-offs	0.10%	0.15-0.35%	No change
Core fee income ^{3,4}	\$1,181M	Low teens % growth	High teens % growth
SVB Securities revenue ^{3,5}	\$518M	\$540-590M	\$480-\$530M
Noninterest expense excluding merger-related charges ⁶	\$3,571M	Low single digits % growth	No Change
Effective tax rate	25.2%	26-28%	No change

Source: Silicon Valley Bank

SVB AFS PORTFOLIO SALE TERMS

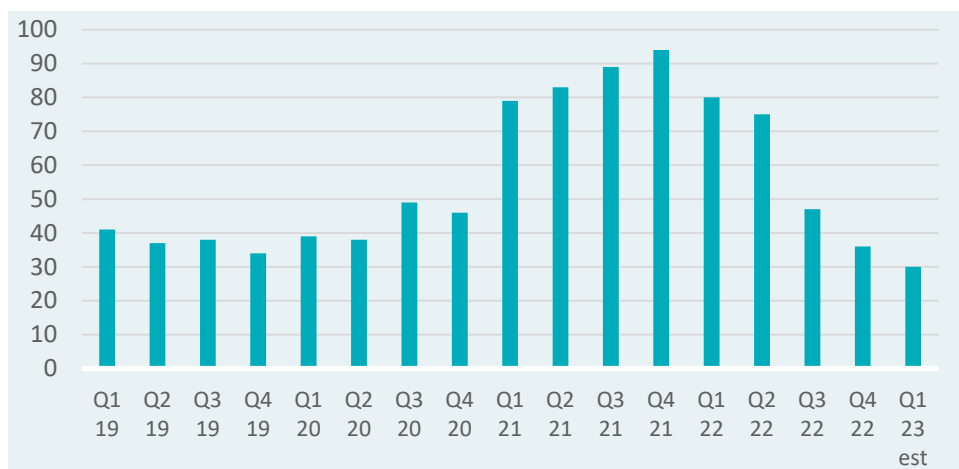
AFS Portfolio Sale	AFS Sale Size	\$21 billion
	Securities Sold	US Treasuries and Agency securities
	Yield of Securities Sold	1.79% 3.6-year Duration
	Preliminary Estimated Realized Loss ¹	\$(1.8) billion (after-tax)
Capital Offerings (Base Size)	Common Stock	\$1.25 billion
	Concurrent Private Placement	\$500 million commitment from General Atlantic to purchase restricted common stock at the public offering price in a separate private transaction
	Mandatory Convertible Preferred Stock	\$500 million
Net Capital Ratio Impact	SVBFG CET1 Ratio ²	+0.15%
Actions to Increase Asset Sensitivity ³	Increase Fed cash	Increase Fed cash target to 4-8% of total deposits (from 4-6%)
	Partially lock-in term funding ³	Increase term borrowings from \$15B to \$30B Hedge with forward starting swaps ³
	Reconstruct AFS portfolio ³	Buy short-duration USTs ³ Hedge with receive-floating swaps ³

Contributors to SVB failure

The SVB failure was driven by a number of factors, including:

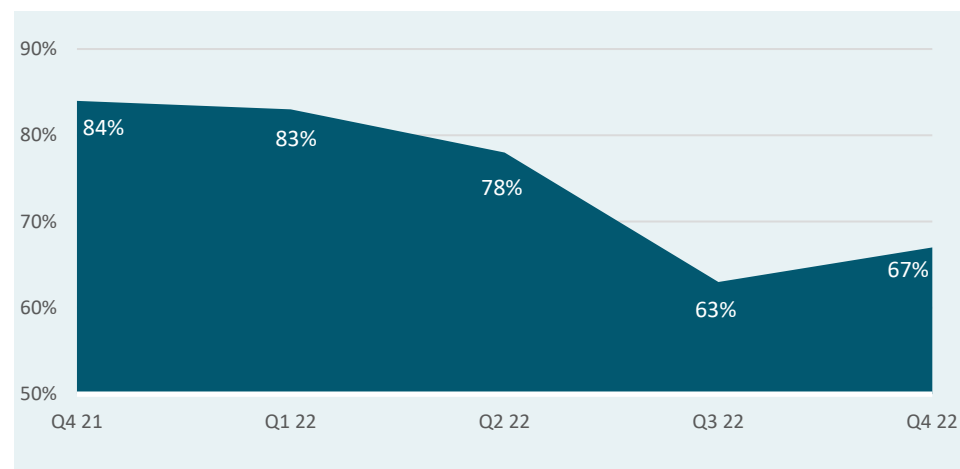
- The repricing of assets on the balance sheet (as a result of increases in interest rates) that led to the forced sale of those assets:
 - SVB's balance sheet was 50% invested in non-marketable securities (\$120 billion of its \$212 billion assets)
 - And, of this \$120 billion, the largest concentrations were in mortgage-backed securities.
- The need to fund tech company cash withdrawals, which increased and led to a run on the bank.
 - This was driven by slowing venture capital deployment across the industry.
 - Venture performance saw a rapid decline in 2022.

U.S. VC BACKED INVESTMENT ACTIVITY (\$BILLIONS)



Source: Pitchbook, Angelist

SHARE OF VC DEALS THAT RAISED AT A VALUATION INCREASE

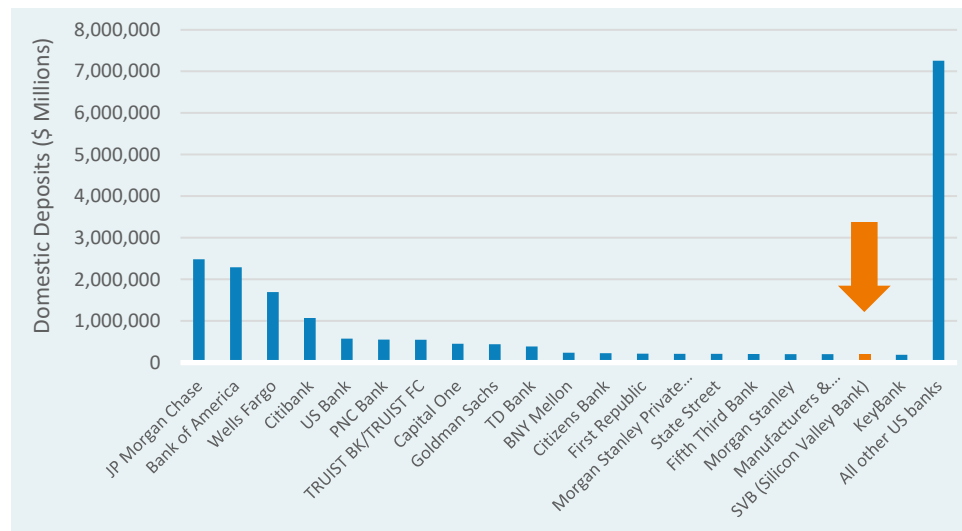


Broader market impacts

SVB impact sizing

- The largest 20 banks in the United States hold approximately \$12.5 trillion of \$20 trillion total domestic deposits (63%). SVB holds nearly 1% of total U.S. domestic deposits.
- Of the top 20 banks, First Republic Bank experienced the second largest decline in share price since the start of last week.
- The five worst performing banks (in terms of share price movement) from March 6th through the 13th make up around 7% of total deposits. These include Key Bank, Citizens Bank, Fifth Third Bank, Truist, in addition to First Republic Bank (FRB).

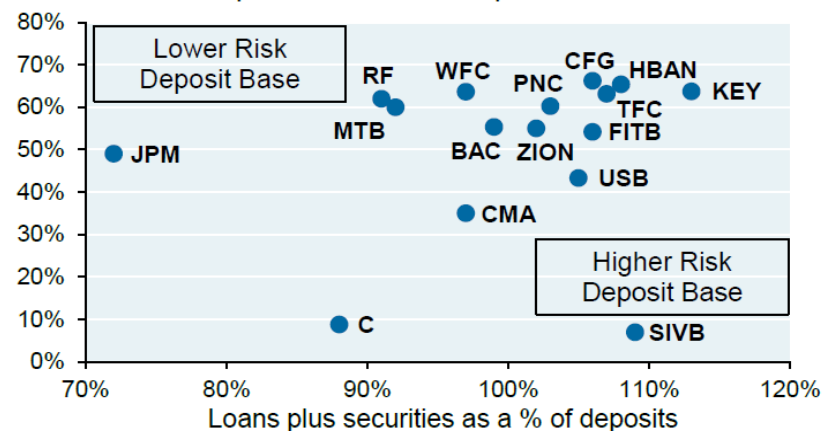
HOW LARGE WAS SVB IN THE MARKETPLACE?



Source: Federal Reserve, as of 12/31/22

U.S. BANK LOAN-TO-DEPOSIT RATIOS

Estimated retail deposit share of total deposits

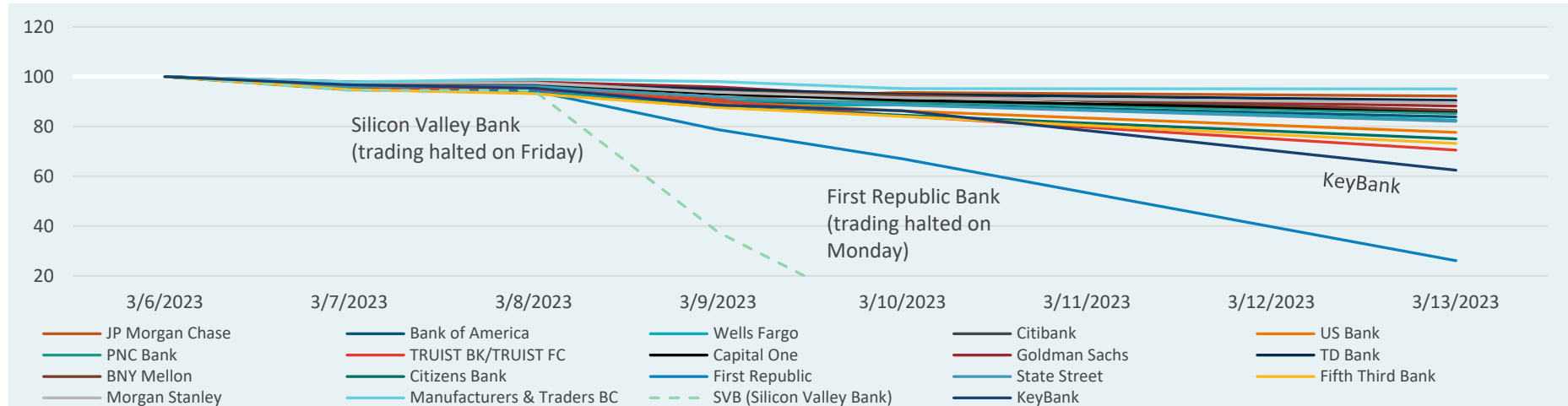


Source: JPMAM. Securities include Hold to Maturity and Available for Sale categories. Q3 2022.

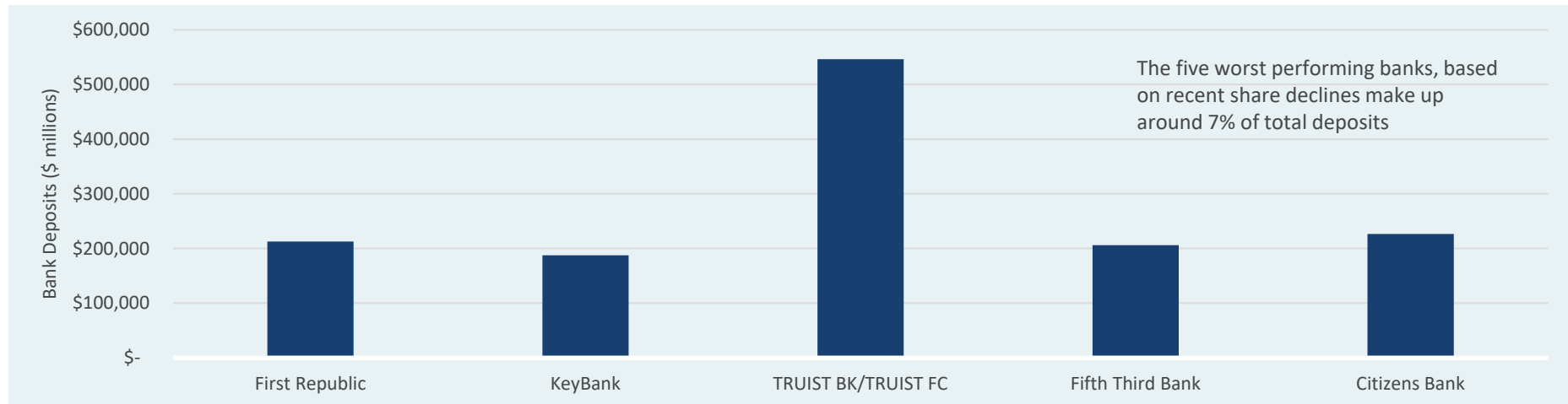
Source: Bloomberg, JP Morgan

U.S. financial stock declines

U.S. LARGE BANK RECENT STOCK MOVEMENTS (INDEX 100)



5 WORST PERFORMING BANKS (IN ORDER) & RESPECTIVE DEPOSITS – IN TERMS OF SHARE PRICE MOVEMENT (3/6 THRU 3/13)



Source: Bloomberg, as of 3/13/23 close

Other recent bank crises

First Republic Bank (At Risk)

- On March 12, First Republic received an additional funding injection from the Federal Reserve and J.P. Morgan. This round of funding provided the bank with \$70 billion in liquidity. The bank previously had \$60 billion borrowing capacity.
- First Republic Bank has a much larger deposit base which suggests the bank is not likely to be as materially impacted. FRB has been proactive throughout these events and their strong balance sheet has protected them. It is believed that FRB is in a healthy position as reflected in the strength of their capital, credit and liquidity, and as also seen in their credit ratings and year-end earnings.

Silvergate Bank (Failure)

- SVB's failure followed the voluntary liquidation of Silvergate Bank. The bank's crypto-focused services increased rapidly with the rise of cryptocurrency assets, but plunged alongside cryptocurrency losses. The collapse of FTX and Alameda Research (which held large deposits at Silvergate) and criminal investigations by the U.S. Justice Department eroded confidence.
- Silvergate and Silicon Valley Bank failed for different reasons, but shared some similar characteristics: a large concentration of exposure to single industries. Cryptocurrency for Silvergate, and technology and venture for Silicon Valley Bank. Also, illiquidity due to significant losses on assets, primarily driven by increases in interest rates. Additionally, both bank's assets were below \$250 billion, subjecting them to less stringent banking standards.

Signature Bank (Failure)

- Signature Bank saw large share losses as concerns grew around Signature's large exposure to cryptocurrency, similar to that of Silvergate. On March 12th, the Federal Reserve, U.S. Treasury, and FDIC announced that Signature Bank would be closed, but depositors would be made whole in a similar situation to that of Silicon Valley Bank. While the failure of Signature Bank was similar to Silicon Valley Bank in the systematic mismatch of assets and deposits, Signature's closure was due to a large exposure to cryptocurrency related deposits, rather than U.S. technology and venture.

Potential market & investor impacts

Direct impacts

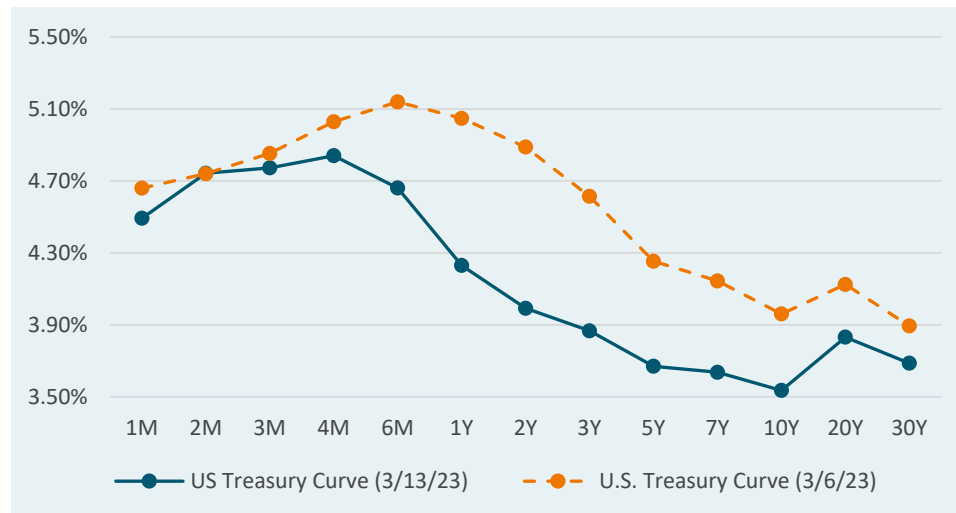
It will take time for all implications and effects to be clear – in some cases weeks or months.

- The U.S. Treasury, Federal Reserve, and FDIC have jointly guaranteed that SVB depositors will have access to funds. Regulators took control of a second bank and are racing to roll out emergency measures. Interim impacts are likely to be felt most by tech startups, venture funds, and high net worth entrepreneurs and tech investors.
- While the full impact remains to be seen, the immediate impacts to clients with private markets portfolios have largely been mitigated by the government backstop. Companies may have lines of credit or funding agreements in place allowing them to fund growth or operations. These companies may experience short-term (or longer) cash flow or financing problems and will have to find other lenders in short order. Some of these companies may also be held in investor portfolios.
- Some of the products or services offered by SVB may be integral to the operations or financing of enterprises that are in investor portfolios. Until alternative solutions are found, this may cause challenges for those investors. Companies may attempt to raise cash from other available options including their venture capital sponsors and other investors.
- Valuations in negative cash flow companies may be pressured lower. For example, early-stage biotechnology ventures may be more exposed, given their pre-revenue (phase 1, phase 2 clinical trials) nature.
- Possibly more stringent lending terms for private companies/funds, going forward. Fundraising may be more challenging, both for start-ups and funds.

Indirect impacts

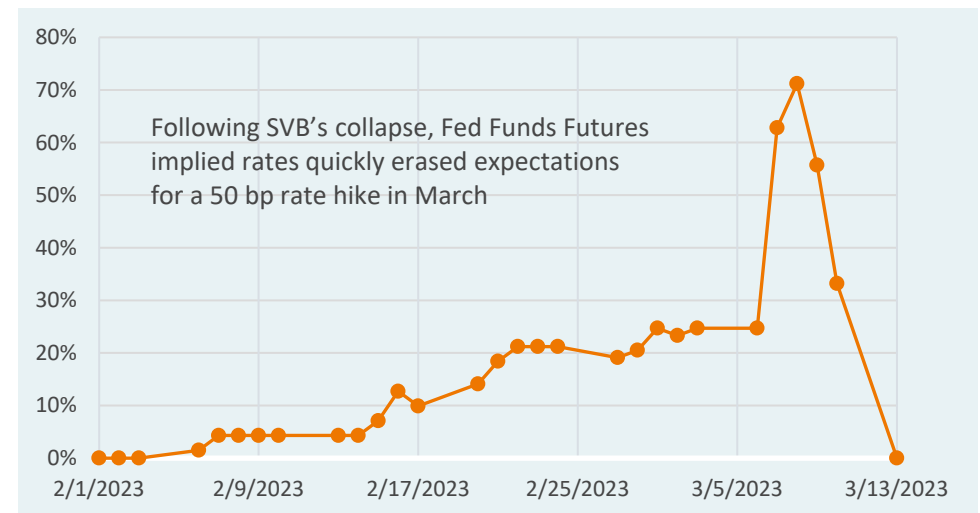
- The broader risks to the financial system that SVB poses likely will revolve around sentiment more than structural issues with bank assets. The way in which investors react in the coming weeks could determine the market impact. As is typical of the environment banks operate in, banks that stand on good financial footing can be at risk if bank confidence turns sour.
- This event has called attention to the challenges to banks that will have been caused by the rising interest rates we have seen recently. We can expect other banks with similar balance sheets to come under pressure, and there is a possibility that one or more may fail in a similar way. Were that to happen it could have a material knock-on effect regarding confidence.
- Tension in the banking sector could cause challenges for the Federal Reserve. While the Fed is concerned about inflation, and recent discussions have focused on future interest rate hikes to dampen inflation, rising interest rates could worsen fears of contagion. Altogether, this could lead to slower rate rises, higher inflation, and/or other economic uncertainty. Large moves in interest rate may contribute to volatility in fixed income portfolios.

U.S. TREASURY CURVE – RECENT MOVEMENTS



Source: Bloomberg, as of market close 3/13/23

MARKET IMPLIED PROBABILITY OF A 50 BP MARCH RATE HIKE



Longer-term impacts

- SVB plays an instrumental role in financing private equity and venture capital companies and funds. Disruption of this kind may create longer term challenges for those who have historically operated in that space. It may take time for the ecosystem to adjust to this disruption.
- Overall, this may impact valuations for VC portfolio companies, which may have a further impact on valuations in broader markets.
 - While the full impact remains to be seen, in the interim, clients with allocations across venture capital and, to a lesser extent, the broader private markets asset class, may see erosions in portfolio values.
 - VC firms are advising companies across their portfolios to diversify their underlying assets across separate financial institutions, regardless of existing exposures to SVB.
- A focus by banks on de-risking their balance sheets. This could cause challenges in the market for higher risk assets currently held on those balance sheets. This may create problems for other banks and investor holders of those assets but provide opportunities for other buyers who are able to take advantage of distressed sales.

Investor implications

Verus continues to assess potential implications for the economy, for markets, and for client portfolios. In particular, we are continuing to:

- **Assess Client Portfolio Direct Implications**

We are working through the direct implications for client portfolios and engaging closely with investment managers in the private markets to understand exposures directly and indirectly. As we find this information, we will distribute this to the consultants for the clients concerned.

- **Engage with Managers Broadly**

We are working closely with investment managers to understand their exposures, and to gain other insights and understanding of this developing situation. This will help inform our view as we go forward.

- **Assess Longer-term Effects**

We are assessing the knock-on effects to the broader financial markets and longer-term impacts for client portfolios.

Notices & disclosures

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