Insight

The Collapse of Silicon Valley Bank

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Executive Summary

- Silicon Valley Bank, America's sixteenth largest bank, collapsed after depositors attempted to withdraw $42 billion in a single day.
- The failure at Silicon Valley Bank says less about the banking industry as a whole and more about how a single bank could make such errors: extreme exposure due to a highly concentrated customer base and heavy investment in long-term Treasurys, and banking supervisors that somehow missed both.
- By announcing their intent to make all Silicon Valley Bank depositors whole (and in so doing appearing to create a federally backed guarantee for *all* deposits), Congress and the federal financial regulators risk disastrous precedent; moreover, any future calls for tighter bank capital requirements or strengthening Dodd-Frank would fail to prevent similar mismanagement.

Introduction

Last week saw the collapse of Silicon Valley Bank (SVB), the sixteenth largest American bank with just shy of $210 billion in assets under management going into 2023. In what House Financial Services Chair Patrick McHenry called "the first Twitter fueled bank run" SVB customers withdrew $42 billion in a single day of trading at a rate of over $1 million a *second*. By comparison, the previous largest bank run in modern U.S. history took place in 2008 at Washington Mutual bank, which lost "only" $16.7 billion over 10 days. At what was then $307 billion in assets, Washington Mutual remains the largest bank failure in U.S. history, with SVB taking second place.

Investors, depositors, regulators, and Congress, in addition to international central banks, are scrambling to understand what went wrong. What is SVB? What happened? Where were

the regulators? And perhaps most crucially, what happens next, and in particular what is the risk of the type of widespread financial contagion that precipitated the mass collapses and emergency bailouts seen in the 2007–2008 financial crisis?

What Was Silicon Valley Bank?

Founded in 1983 in Santa Clara, California, SVB provided banking services (including taking deposits) for Silicon Valley startups, venture capital firms, and fintechs. At the time, many considered the traditional banking sector to be slow in understanding the unique characteristics and financial needs for technology and finance firms growing in Silicon Valley; SVB became known for its willingness to lend to start ups that were not yet profitable. The bank's signature financial assistance came in the form of "venture debt" – debt financing specifically provided to venture-backed companies.

Over the last decade, SVB has undergone significant growth and in 2015 claimed to serve 65 percent of all U.S. startups. At the end of 2022, over half of SVB's loan portfolio was made up of loans to venture capital and private equity firms. In recent years, SVB branches have launched in Canada, the UK, Europe, India, and Israel.

In addition to periods of growth, SVB's history also shows some near misses. SVB's first major period of expansion occurred during the dot-com bubble, when notable customers included Cisco Systems; the collapse of the bubble saw the company's stock price cut in half. During the 2007–2008 financial crisis, SVB received a $235 million "investment" from the federal government via the Troubled Asset Relief Program (TARP).

A state-chartered bank, SVB was regulated by the state of California and was a member of the Federal Reserve System. As a "large financial institution" (banks with $100 billion or more in assets), SVB was supervised by the Federal Reserve (the Fed) from both Washington, D.C. as well as from the Fed's branch in San Francisco. SVB was Federal Deposit Insurance Corporation (FDIC) insured, although over 90 percent of its customers held over $250,000 at the bank; an estimated $151 billion of assets or were therefore uninsured deposits.

What Happened?

On March 8, one month after Forbes magazine had added SVB to its "Financial All-Stars" list, SVB management announced a $2 billion stock offering, immediately seen as an effort to shore up weakness in the firm's balance sheet. Prominent venture capitalists, most notably Peter Thiel's Founders Fund, took the news dimly and immediately sought to publicly limit exposure to SVB. These actions spooked SVB's wider customer base, resulting in a bank run that saw depositors attempt to withdraw $42 billion over the course of a single

day.

On March 9, SVB's share prices fell 60 percent and the bank's CEO held a call with investors urging them to stay calm.

On March 10, trading in SVB shares was halted, California state regulators took possession of the bank, and the FDIC was appointed receiver.

On March 12,

- Treasury Secretary Janet Yellen told reporters that the federal government would not bail out SVB, and also noted the American banking system writ large is "safe and well-capitalized" and "resilient."
- The FDIC reportedly also held an auction for SVB as it sought to find a buyer as quickly as possible.
- The Fed announced a new emergency lending program, the Bank Term Funding Program. Under this program, banks in need of liquidity can obtain a loan of any amount for a time between 90 days and a year. Most notably, in exchange for these loans banks can pledge assets that will be valued at par rather than market value.
- Finally, Treasury, the Fed, and the FDIC announced that all SVB depositors, even the uninsured, would have access to their money from the following day. Government officials went to great pains to stress this was not a bailout, noting that it was only SVB depositors that would be made whole and not SVB investors or SVB itself.
- The financial regulators also announced the collapse of New York's Signature bank.

On March 13, the UK Treasury announced that SVB's UK branch would be bought by HSBC; German regulators blocked all asset sales and customer trading for SVB's German branch.

Why Did it Happen?

The era of free money has ended. While the Fed Funds rate (the interbank rate at which banks with more liquidity lends to others in need) remained effectively zero from 2020–2022, SVB's customers, particularly those in tech, saw a period of explosive growth. SVB capitalized on a period of increased deposits by investing heavily during the pandemic into long-term Treasury bonds, assuming rates would stay steady. Long-term Treasury bonds are extremely exposed to interest rate risk, however. As the Fed began to raise interest rates to curb inflation, the current market rate on these long-term bonds began to fall. The cost of borrowing began to rise, and money was no longer free. SVB's customer base was extremely poorly diversified, resting largely on health and tech startups in the

Silicon Valley area, and industry that collectively lost $7.4 trillion in one year.

SVB customers began to pull their deposits from SVB in order to meet their liquidity needs, and SVB needed a fast fix to cover this shortfall. Selling its long-term Treasury bonds before they matured, at such a terrible market price, was the warning sign to SVB's venture capitalists that balance sheet liquidity was dire, sparking a bank run as depositors sought to withdraw their assets. SVB's continued existence depended on long-term investments it was unwilling to sell and deposits that may have to be repaid at any time.

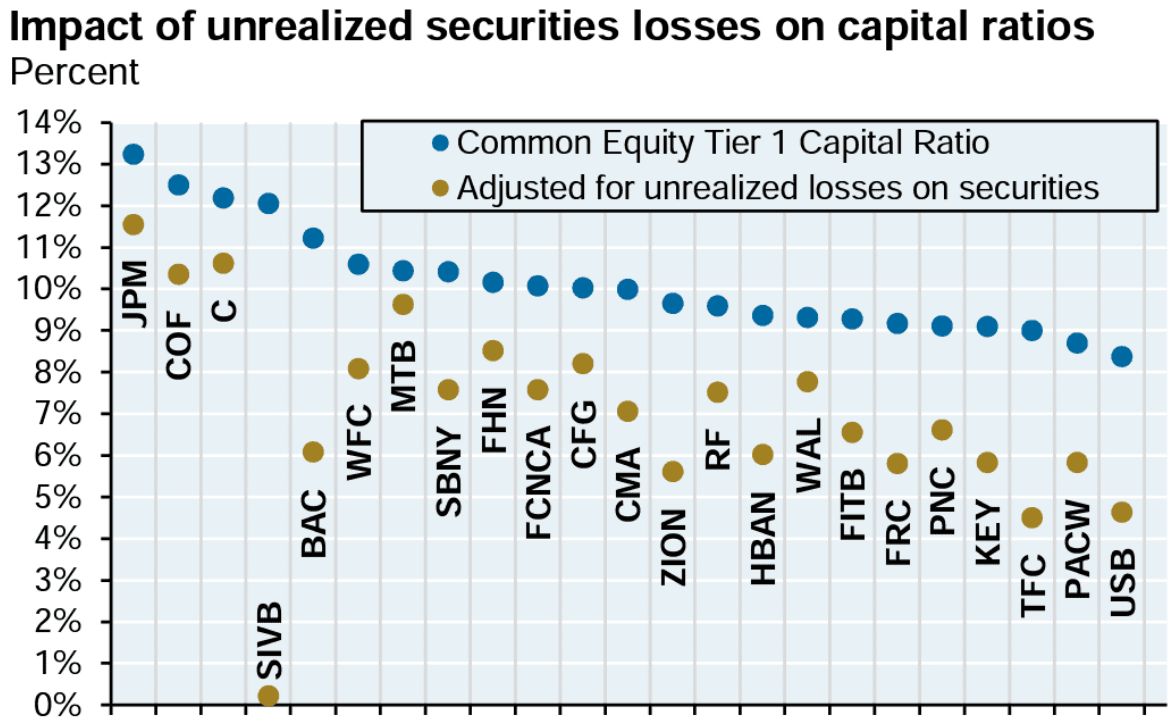
Where Were the Regulators?

Whereas in the financial crisis regulators and supervisors could be excused for failing to appropriately understand the extremely complex financial vehicles that underpinned the mortgage-backed securities (MBS) market, SVB's asset-liability mismatch was quite clear on its balance sheet. The uncontrolled growth at SVB was also readily apparent to onlookers, as SVB added $100 billion in total assets in just a year, doubling its 2020 holdings. This represents a textbook example of bank failure, as internal controls and risk buffers rarely advance at the same pace. SVB presented unique risks, with its highly concentrated customer base and with less than 10 percent of its deposits guaranteed by the FDIC, making the bank extremely vulnerable to panic. The Fed's targeted attempts to curb inflation by raising rates should have started conversations at the financial regulators and the Financial Stability Oversight Council about the risks new economic conditions would create.

What Happens Next?

The most significant question facing policymakers is one of financial contagion. Fortunately, SVB's collapse appears to have very little in common with the situation of banks in the 2007–2008 financial crisis that saw a highly complex global misidentification of the risks presented by a dizzyingly complex set of financial vehicles against a backdrop of low bank capitalization. The federal government has stressed that whatever "systemic risk" may be present in the larger banking system will be mitigated by deposit protection provided by Treasury and the FDIC. Yet this emergency "guarantee" presents its own policy issues: most notably, the proposed use of FDIC assets to back depositor protection; and the moral hazard of making depositors of a failed bank whole. What is the point of the FDIC's targeted guarantee program if the federal government will step in to make seemingly all deposits guaranteed by the U.S. government? Worse, the federal government will also provide Bank Term Funding Program funds (paid for out of the Exchange Stabilisation Fund, an unrelated facility to mitigate currency risk) to lend against the face value of long-term bonds, rather than their current market price, appearing to bail out any other firm that makes similarly poor investment decisions.

Some commentators, particularly in Congress, will use this opportunity to discuss raising capital requirements and strengthening Dodd-Frank. But there is little evidence that SVB was under- or poorly capitalized. No bank is equipped to deal with a run of this magnitude, and bank capital requirements are not designed to prevent this scenario. The significance of SVB's exposure to interest rate risk was telling, however. Researchers at JPMorgan modelled the capital ratios of SVB's competitors if they too had to sell their long-term Treasurys. While many banks would fall significantly below their Tier 1 Capital Ratio, only SVB (SVIB in the graph below) plunged to zero. Even if other banks of similar size to SVB had made similar mistakes necessitating such a short-term injection of liquidity at such a loss, balance sheets would have remained intact.



Source: JPMorgan

Conclusions

The prevailing economic factors have had negative impacts stretching far beyond SVB. Four of America's largest banks lost a combined $55 billion in a single day of trading. SVB is not the only bank to have gone under, with Silvergate preceding it and Signature Bank following—and both of which had also bet heavily on tech and in particular crypto. But weak management controls, a poorly diversified and sophisticated portfolio of customers within a

highly concentrated sector, and an indefensible exposure to interest rate risk was enough to topple America's sixteenth largest bank. While it seems unlikely in the near future that the collapse of SVB will cause a significant domino effect within the U.S. banking sector, this failure presents several lessons bankers should learn: to avoid concentration in industries exposed to economic headwinds and to practice healthy balance sheet asset-liability matching. If there is a lesson for Congress and the administration to pull from SVB's fall, it is not that the banking sector is unsafe or that bank capital requirements are too low; instead, it to understand how financial regulators missed the obvious errors made by SVB management.