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THE COLLAPSE OF SILVERGATE BANK

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Abstract

The U.S. Banking Crisis of 2023 is reportedly different from previous crises. The well-expected failure of Silvergate Bank is because of its crypto-friendly business. This study examines the events that led to the bank's collapse granularly that led to its bankruptcy. A qualitative examination uses historical research and case study method to examine the background of the bank, the series of events that led to its rise, and the eventual collapse of the bank. Discussion and findings from the study explain the various forms of risks that banks face in the course of their business. The study contributes to the literature on bank crises and failures and will be useful to the banking industry and regulators.

Keywords: cryptocurrency, bank run situation, concentration risk, banking business

INTRODUCTION

Banks are critical financial institutions in an economy (Berger et al., 2020). Owing to their economic importance, they are well-regulated. Regulations worldwide develop frameworks that require banks to maintain a sound business model and proper risk management practices. The transformation in the types of assets because of financial product innovation and financial engineering, increased regulations (Nielsen & Weinrich, 2023), information technology change (Lin, 2007), and increased competition (Bayeh et al., 2021) led to several banks, especially new generations, lending depositors' money to new-age businesses – such as startups, fintech, or digital asset firms, often dealing with high-risk-grade assets. Silvergate Bank is a case of a U.S. bank whose risky business model, liquidity problems, high exposure to the highly-risky and highly-volatile assets – cryptocurrencies, and poor risk management practices led to its failure. Silvergate Bank is the first of the three banks in the U.S. that collapsed in just five days in March 2023.

RESEARCH METHODS

By employing qualitative research, this study uses the historical research model to examine the events that led to the Silvergate Bank's collapse and draw conclusions. The case study method is used to record and discuss the events that happened within the bank and the U.S. banking ecosystem. Data is collected from the official website of various government departments, regulators, and banks. Since the U.S. banking crisis is far from over, it should be treated as an ongoing development. Hence, we must acknowledge that news media is used as a source for data collection. The latest and current data is collected from reputed newspapers and news media websites, especially those related to cryptocurrencies.

RESULT AND DISCUSSION

Silvergate Bank is a La Jolla, California, U.S.-based commercial bank that provides financial infrastructure solutions. It started its banking operations in 1988 and had 21 years of consecutive profits. The bank is a wholly-owned subsidiary of Silvergate Capital Corporation. Like any other U.S. commercial bank, the bank is regulated (by the Federal Deposit Insurance Corp., the Federal Reserve, and the California Department of Financial Protection and Innovation). It offers traditional banking services to individuals and businesses. It supported innovative businesses, startups, entrepreneurs, and taking customers connected with the digital currency industry. Between 2013 to 2016, the bank began serving cryptocurrency customers, such as cryptocurrency exchanges, who became its institutional investors. The rise of Bitcoin and various other cryptocurrencies made it the most sought-after bank by U.S. investors. The bank has been in good and challenging times of cryptocurrencies, including the crypto winter. So, market volatility and risk management are not new to the bank.

The bank came up with an IPO on November 7, 2019, with which it raised $40 million by offering 3.3 million shares (25% primary; $10 million) at $12 per share in its IPO. The market well received the IPO and the stock had a successful debut on the stock exchanges. The funds raised through the IPO were intended to support Silvergate Bank's continued growth and expansion in the digital currency industry, including investments in technology infrastructure, product development, and strategic acquisitions. The shares began trading on the New York Stock Exchange (NYSE) under the ticker symbol "SI." The IPO marked a significant milestone for Silvergate Bank, providing increased visibility and liquidity for the company while signaling the growing acceptance and importance of digital currencies and blockchain technology in the broader financial sector.

The crypto industry fondly calls the Silvergate Bank a "crypto bank" for being friendly with the industry. There are a few reasons for this.

Firstly, traditional U.S. banks are not interested in supporting their clients close to cryptocurrencies because they treat cryptocurrency and related products as rivals. Blockchain-based networks and decentralized technologies eliminate "middlemen" such as market intermediaries (such as banks and financial service providers) because intermediaries charge fees for financial transfers (Guo & Liang, 2016). Silvergate Bank is a traditional bank that came forward to take the risk and fill this void of acting as a critical stakeholder in the cryptocurrency ecosystem – providing the channel that connects investors and traders with the crypto industry. The bank has a first-mover advantage by doing so, and this helped it get marquee crypto clients such as Coinbase, Circle, Paxos, and Gemini. The bank became the "go-to bank" in the industry with little or no competition (the exception being Metropolitan Commercial Bank and Signature Bank, which, too, began offering similar services).

Secondly, the bank was the first to launch Silvergate Exchange Network (SEN) service in January 2020 (Arslanian, 2022). SEN is a settlement platform/service that enables the quick, real-time, secure, and efficient transfer of fiat currency (such as U.S. dollars and Euros) to other SEN participants. The service is available around the clock, including on holidays. Institutional clients liked the service because it allowed money transfers to crypto exchanges such as Binance.US, Kraken, Gemini, and ErisX (before its acquisition by Cboe). The service soon became a critical infrastructure for the cryptocurrency industry in the U.S. For example, as of September 30, 2019, the bank's total assets were $2.1 billion, which increased to $5.0 billion as of September 30, 2021.

Thirdly, the bank offered cryptocurrency-based lending products, a hot cake in the cryptocurrency industry. The SEN Leverage service started in October 2020, provides Bitcoin-collateralized U.S. dollar loans to institutional clients. The bank offered flexible terms for the SEN Leverage, including customizable loan-to-value ratios and repayment options. Customers can work with the bank to tailor the loan terms to their needs. Being a leveraged product, customers need to carefully manage their loan obligations and monitor the price volatility of Bitcoin, as a decrease in the value of the collateralized assets could trigger margin calls or liquidation. The bank customers were happy because they got the fund transfer infrastructure and leverage/liquidity services.

In December 2021, Silvergate Capital and EJF Capital formed a joint fintech venture fund called EJF Silvergate Ventures Fund. On January 27, 2022, Diem Association, a group backed by Facebook, sold its assets, including intellectual property, to Silvergate Bank for $200 million. Diem Association originally planned to release its stablecoin, a type of cryptocurrency designed to maintain a stable value. However, the plans faced several challenges and hurdles. Its CEO Mark Zuckerberg was asked to testify before the Senate. Lawmakers had concerns and questions regarding Facebook's involvement in the cryptocurrency space and the potential impact on financial systems. Around that time, Silvergate had plans to launch a U.S. dollar-backed stablecoin. The Diem Technology acquisition furthered the cause. However, the stablecoin launch was frequently delayed, and the plan was eventually given up. This misadventure resulted in a loss of close to $196 million for the bank (Berkowitz, 2022a).

The bank and its business were smooth till the third quarter of 2022. There was a steady deposit flow, and most deposits were non-interest bearing. The bank reported a net income of $43.3 million for the quarter. Its 1,677-odd SEN customers made $112.6 billion in U.S. dollar transfers during the quarter (Berkowitz, 2022b). The bank had $13.3 billion in total deposits, of which $1.9 billion were in cash, and $11.4 billion were in investment securities. During November 2022, the shares of Silvergate traded to their all-time high of $239 per share. As deposits grew, the bank decided to put the monies into bonds. Bonds are securities that are inversely related to interest rates. The quick Fed interest rate cycle change caught all U.S. banks by surprise. Silvergate Bank had substantial exposure to bonds, as Figure 2 shows.

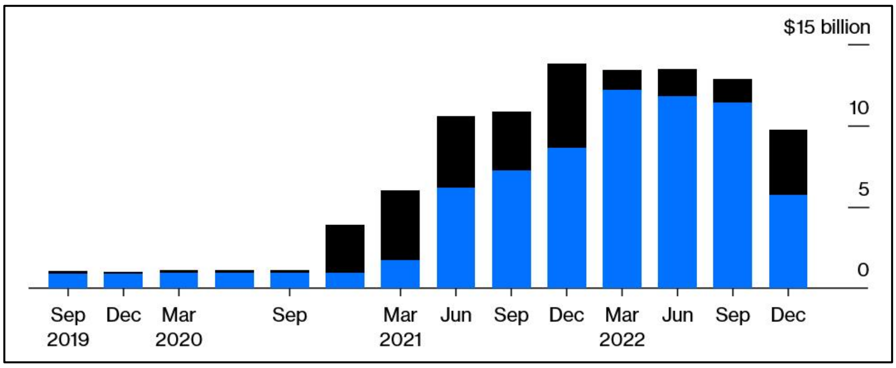

Figure 2
Silvergate Bank has substantial exposure to bonds and interbank deposits.
Data Source: Bloomberg

On November 11, 2022, the world's second-largest cryptocurrency exchange - FTX - and more than 100 affiliates, including FTX US, Alameda Research, and others, filed for bankruptcy in Delaware. The sudden development shocked the cryptocurrency industry, and panic erupted. All financial institutions having clients close to cryptocurrencies got a turbulent hit. Silvergate Bank took a bigger hit for being a leading infrastructure provider as clients began to pull out funds at a faster-than-anticipated pace. FTX, per se, is not a problem for the bank. FTX deposits account for less than 10 percent of the bank. FTX is also not a custodian for Silvergate's bitcoin-collateralized SEN Leverage loans. Around the same time, another crypto lender BlockFi filed for bankruptcy, and fears of Silvergate Bank's exposure to it were making rounds. CEO Alan Lane clarified that their relationship with FTX is limited to deposits only (perhaps $1.2 billion) (BusinessWire, 2022). BlockFi deposits accounted for less than $20 million of the bank's total deposits.

The Chief Risk Officer of FDIC believed that the bank collapsed because it failed to manage its risk efficiently and was heavily dependent on the crypto industry for assets that were not even insured. The bank had concentration risk because the top 10 large depositors formed half of the bank's deposits at the end of the third quarter. Also, as much as 90% of deposits come from crypto clients. Apart from the FTX deposits, there were $900 million of other deposit outflows. At around the same time, multiple U.S. regulators began a crackdown on the crypto industry. Considering the developments in the industry, Gemini and other institutional traders were unhappy and began to pull out their money and assets. As much as $14 billion were withdrawn by the bank clients in the final quarter of 2022, coinciding with the collapse of FTX and its closeness to Alameda.

The withdrawal rate leading to a liquidity crisis was considered "worse than great depression-era runs." As pressure began to mount, fresh deposits fell, outflows increased, and the bank was soon out of cash. It began selling its $5.2 billion debt securities book, incurring a loss of $4718 million to honor the withdrawals. It received a bailout in the form of a loan from government circles, such as the $4.3 billion loan from the Federal Home Loan Bank (FHLB) (Silvergate, 2023a). However, U.S. Senators expressed displeasure at giving the loan. They criticized that the bank has "further introduced crypto market risk into the traditional banking system (Kelly, 2023). " Eventually, the bank sold off all its debt securities, holding funds above what it needed to repay depositors. It also cleared the FHLB loan (Berry & Heltman, 2023). However, the whole episode came at an enormous cost – its survival. The bank suffered $1 billion in losses during the fourth quarter as investors withdrew their $8 billion deposits. The bank also stopped its mortgage warehouse business because of the rising interest rate environment and reduction in mortgage volumes. While deposits fell enormously, interest-bearing deposits slowly went up, increasing its liability and cost of funds, as shown in Figure 3.

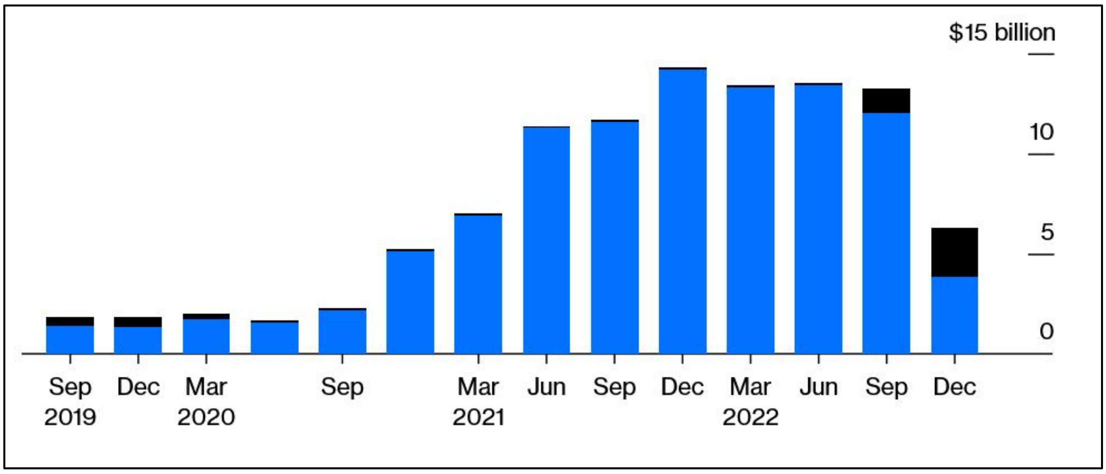

Figure 4
Silvergate Bank: Total deposits at the end of each quarter
Data Source: Bloomberg

Elsewhere, the U.S. banking industry was surprised at how quickly Fed changed the interest rates. Several U.S. banks could not cope with the dynamics of interest rate changes, eventually forcing few other banks to collapse and file for bankruptcy.

In December 2022, a class action suit was filed against the bank and its CEO Alan J. Lane for its alleged role in transferring FTX customer deposits into Alameda's bank accounts (ALM Staff, 2022). This added a new dimension of pressure to the bank - judicial scrutiny and a fraud probe. Though the bank was not accused of wrongdoing, the probe was in an early stage (Schoenberg, 2023). Investigators focused on what banks knew concerning FTX and its operations. Silvergate Bank disclosed that Alameda opened a bank account with them in 2018 – before FTX was founded. Additionally, the bank was facing multiple lawsuits that accused the firm of failing to alert investors that it lacked the necessary protections to detect money laundering on the platform.

On March 1, 2023, Silvergate Capital Corporation filed Form 12b-25 to the exchanges that it would delay filing its annual 10-K report for various reasons, including questions from its auditors (SEC, 2023). The forward-looking statement in the form mentioned that the company is checking its viability if it can continue as a going concern for the next twelve months. The stock market often sees delays in reporting as a sign of crisis and the stock price often gets a beating. On March 2, 2023, the stock collapsed 29 percent (Reuters, 2023). The company shares lost 67% year-to-date and 95.7% of its value last year (Macheel, 2023). Market capitalization of the stock gradually came down, as Figure 4 shows. The performance of the bank stock closely with the price movement of Bitcoin, till of course the fateful Q4 FY22, as shown in Figure 4.

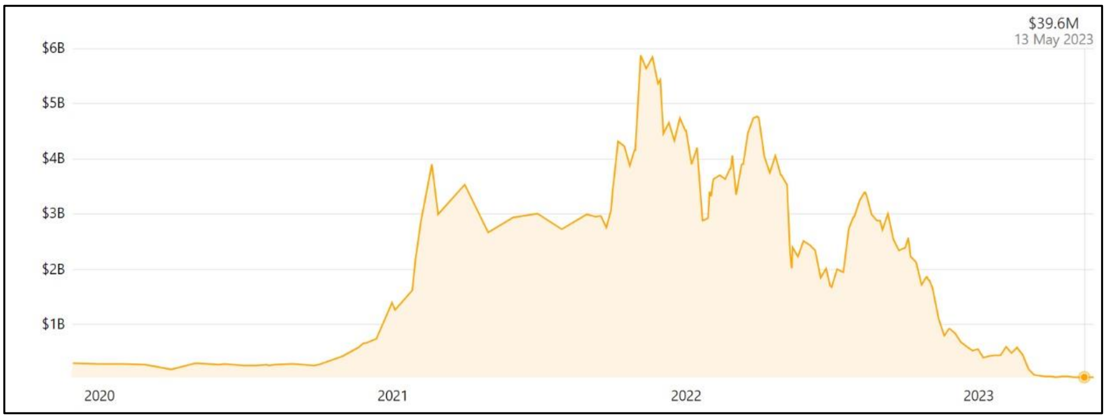

Figure 4
Market capitalizaton history of Silvergate Captail from 2019 to 2023
Data Source: CompaniesMarketcap.com

Figure 5
Share prices of Silvergate Capital and Bitcoin are closely correlated till Q4 FY22
Data Source: TradingView.com; Data is as of May 25, 2023

On March 3, 2023, Silvergate made another shocking announcement to discontinue its key service – the Silvergate Exchange Network (SEN). Of course, clients are allowed to use other deposit-related services (De & Allison, 2023). Four parties benefit from the dismantling of SEN (Kuhn, 2023). Firstly, rival banks such as Signature Bank would benefit. However, Signature Bank said it would trim down its crypto business, but it collapsed a few days later. Another rival - Metropolitan Commercial Bank, almost exited its crypto business (Braun, 2023). Secondly, Stablecoins will gain more attention from traders and turn ubiquitous. Thirdly, traders would move out of the U.S. in favor of Europe which is far ahead in framing cryptocurrency regulations. Finally, payment providers will get more business because of the increased fund flows. The rapid share price fall made the bank an attractive acquisition or a takeover target despite the prudent policies to avoid a potential bank run and maintain healthy cash reserves (Alves, 2023). However, no one came forward because of the ongoing U.S. regulatory crackdown on the crypto industry. The bank appeared to have had nothing valuable except for the charter.

On March 9, 2023, the final nail to the coffin came. Silvergate Capital Corporation announced it would wind down operations and voluntarily liquidate the bank (Silvergate, 2023b). Experts felt there would be no contagion risk, and the bank's collapse is seen to come sooner or later. In May 2023, Silvergate Bank's owner Silvergate Capital said it would cut its employee size to just 80 to remain afloat (Beganski, 2023).

After the collapse of Silvergate Bank, elevated risks were observed in a few other banks, such as Silicon Valley Bank (SVB), Signature Bank, and First Republic Bank, amongst others making 2023 a standout year for big collapses, as shown in Figure 6. Banking risk was also observed in European Banks such as Credit Suisse.

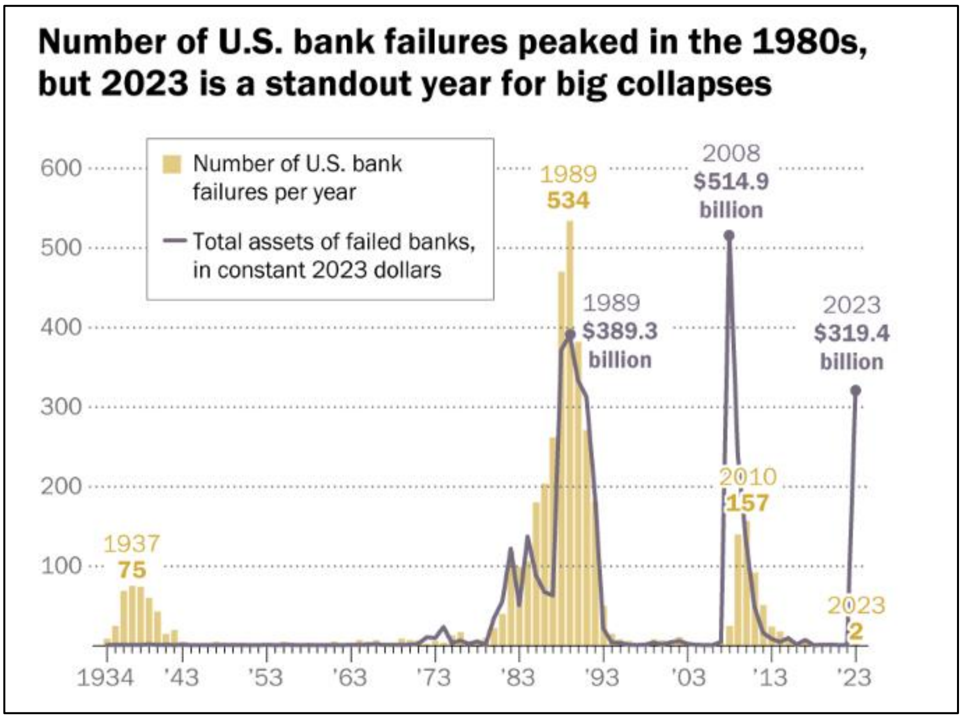

Figure 6.
The number of U.S. bank failures peaked in the 1980s, but 2003 is a standout year for big collapses
Data Source: Pew Research Center analysis of data from Federal Deposit Insurance Corp. Data is as of April 11, 2023

The study draws some important implications. The research reminds bank customers of a critical social implication that risks continue in the banking system and that their deposits will only be protected to the extent of insurance coverage provided by the Federal Deposit Insurance Corporation (FDIC). The managerial implication drawn from the research is that while banks chase opportunities to profit from their investors, they should not forget that they are in risk management and should constantly evaluate risks that emanate from the business models on an ongoing basis. A regulatory implication is that different regulators work in parallel, and at times, their actions will have negative consequences too. Hence, a coordinated action often involving all stakeholders and a phase-wise gradual implementation would be prudent. An important practical implication that can be observed from the sudden collapse in the market capitalization and value destruction for investors reminds the vulnerabilities in the equity research and analysis process, particularly when evaluating new-age business models such as cryptocurrencies. Financial analysts could not identify and highlight the red flags because of either overriding them or because the traditional stock evaluation processes do not fit in evaluating new generation businesses properly.

CONCLUSION

Silvergate Bank collapsed because of its flawed business model of having high exposure to the cryptocurrency industry and a high concentration of deposits from top clients. The collapse of the FTX cryptocurrency exchange and the rapid moves by regulators and judiciary to determine the role of U.S. banks in fueling the FTX fraud has led the bank institutional clients to pull out funds quickly. The resulting liquidity crisis forced the bank to sell its debt assets for considerable losses to honor withdrawals, which cost the bank dearly.

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