

# Reasons and Enlightenment for The Bankruptcy of Silicon Valley Bank

Shengye Jiang

Department of Finance and Economics, Shandong University of Science and Technology, Jinan, Shandong, 250031, China

---

**Abstract:** At the beginning of 2023, the 16th Silicon Valley Bank in the United States, broke out the liquidity run crisis, and then quickly declared bankruptcy, which attracted wide attention from the society. History can guide to the gains and losses, by learning bank bankruptcy cases, enterprises can better understand the importance of corporate management, financial stability and risk management and make more informed investment decisions; It can also help enterprises realize the importance of financial stability and promote relevant regulatory agencies to take measures to ensure the healthy operation of the financial system. Finally, understanding bank bankruptcy events can help relevant stakeholders know how to protect their rights and interests. This paper will conduct a deep review of the bankruptcy of Silicon Valley Bank, and will analyze the real cause of the bankruptcy of Silicon Valley Bank, hoping to help domestic and foreign banks to give corresponding enlightenment.

**Keywords:** Silicon Valley bank, Liquidity risk, Assets and liabilities maturity mismatch.

---

## 1. Introduction

Founded in 1983 in the United States, Silicon Valley Bank is a commercial bank focusing on innovative technology, life sciences, clean energy and venture capital. It provides a comprehensive range of financial products and services for start-ups, venture capital firms, private equity funds, and innovative enterprises, including commercial loans, financing, payment solutions, cash management, capital market services, and more. Silicon Valley Bank has multiple branches and offices in the United States and around the world to provide global financial support to its customers.

According to Silicon Valley Bank, as of December 31, 2022, total assets of Silicon Valley Bank were \$211.8 billion, total investment securities were \$120.1 billion, total loans and amortization costs were \$74.3 billion, total deposits were \$173.1 billion, and total shareholders' equity was \$16 billion. In 2022, Silicon Valley Bank's net income was \$1.5 billion, down 14.7% from a year earlier. On March 7, 2023, Silicon Valley Bank announced that it was honored to be named the best Bank in the United States by Forbes magazine for five consecutive years.

Silicon Valley Bank, which won Forbes magazine "Best Bank in America" for five consecutive years, was forced to go bankrupt within three days due to a severe "run" and the book value of current assets could not cope with the large increase in withdrawal demand in a short period of time. On March 10, 2023, FDIC became the bankruptcy administrator. The global Silicon Valley bank failure was the second largest bank failure in American history, after the collapse of Washington Mutual in 2008.

## 2. The Reasons for the Bankruptcy of Silicon Valley Banks

The following will specifically describe the reasons for the bankruptcy of Silicon Valley Bank. The reasons for the bankruptcy of Silicon Valley Bank can be mainly described from two aspects, on the one hand, the external background of the continuous interest rate increase in the United States, on the other hand, the internal factors of the bank itself. The

following will be described through four processes.

### 2.1. Silicon Valley banks' own assets and liabilities are seriously unbalanced

Silicon Valley startups generally choose Silicon Valley Bank as the opening bank, and make loans or deposits through Silicon Valley Bank. Before the COVID-19 outbreak, Silicon Valley Banks and various technology industry rapid development, this time Silicon Valley bank deposits increased significantly, it increased the size of the bank of Silicon Valley debt, but in recent years by the COVID-19 outbreak under the influence of unstable factors, a large number of enterprise demand for capital, the early debt of the high concentration buried the hidden trouble.

Due to the particularity of customer service, Silicon Valley Bank is different from ordinary commercial banks and different from conventional commercial banks in operation. As is known to all, the main business of commercial banks is deposits and loans, and the main profit of commercial banks comes from the spread between deposits and loans. Silicon Valley Bank is characterized by its asset lending business and flipping corporate deposits into Treasury bonds and securities.

From the perspective of liabilities, the deposit structure is single, and demand deposits account for 66%. Since the epidemic in 2020, the liquidity has been relatively loose, and Silicon Valley banks have absorbed the low-cost deposits of science and technology innovation enterprises on a large scale. In the past two years, the Federal Reserve has actively raised interest rates, and start-ups into financing difficulties, accelerating the consumption of deposits, leading to pressure on the debt side of Silicon Valley banks.

From the asset side, the asset investment structure is single, and the proportion of bond purchases reaches 70%. To generate higher yields, Silicon Valley banks have allocated a lot of long-term Treasury bonds and Mortgage-Backed Securities (MBS). Due to low market interest rates at the time and market regulation at the time, Silicon Valley Bank issued another asset portfolio HTM (Held-to-maturity).

In summary, Silicon Valley Bank's assets are mainly long-term securities with longer duration. Silicon Valley banks' liabilities are mainly deposits with shorter maturities.

## **2.2. Continuous interest rate hikes lead to risks facing banks**

It can be seen above that the maturity mismatch between assets and liabilities of Silicon Valley banks is serious and the concentration of deposit absorption is high, which will make banks face interest rate risk and liquidity risk. Silicon Valley banks are dominated by low-risk Treasury bonds and mortgage-backed securities, with low default risk and low yields. This asset allocation is feasible during the low interest rate policy cycle. But when monetary policy shifts from easing to tightening. From March 2022 to March 2023, the Federal Reserve has repeatedly raised interest rates by 450 basis points to combat the highest inflation in 40 years, with the federal funds rate reaching a range of 4.5% to 4.75%. Because the bond price and interest rate inversely proportional relationship. The asset side of Silicon Valley Bank holds securities with a relatively long duration and is more sensitive to interest rate changes. When the Federal Reserve keeps raising interest rates, the price of securities on the asset side drops sharply.

This will also be an analysis of refinancing risks: in general, the maturity of bank assets is longer than the maturity of bank liabilities. This also means that banks are always in a state of "short-term financing" and have to face higher risks of refinancing their assets than before. As the Federal Reserve's interest rate hike leads to the continuous rise of market interest rates, the deposit rates absorbed by Silicon Valley banks are also rising, and the financing costs of banks are rising. The overall result of the rate hike is shrinking assets and increasing liabilities, which leads to an imbalance in balance sheet business.

## **2.3. Into a liquidity crisis**

First of all, while the rate hike in the US, technology companies have also encountered a bottleneck in the industry due to the COVID-19 pandemic, and many technology companies can only use their own funds in the bank deposits. Large amounts of deposits from Silicon Valley banks. For Silicon Valley banks, this also creates an unexpected demand for cash withdrawals. Second, HTM securities issued by Silicon Valley banks yield about 1.6%, and as the Federal Reserve raises rates and deposit rates rise, securities holders tend to sell their HTM and recover funds for high-yield investments, forcing Silicon Valley banks to spend money to pay for HTM securities. Under the influence of the above two cases, for Silicon Valley Banks, suddenly appeared a lot of unexpected cash demand is liquidity risk, and Silicon Valley bank reserves less and not enough liquidity to pay, forced to sell other assets such as Treasury securities, while Treasury prices also lower state, accelerate selling bonds and other securities will only continue to increase losses.

## **2.4. Serious run**

After the risk of floating losses in securities prices, Silicon Valley Bank did not conduct sufficient market communication in the face of rating agencies such as Moody's lowering their ratings, but tried to ease the difficulties by selling bonds and selling new shares. When Silicon Valley bank from floating losses into actual losses, caused a new reputation risk, due to the existence of information asymmetry. Silicon Valley Bank's solvency has been questioned by depositors, and related rumors have quickly spread, further exacerbating their panic. Based on this, the market expects

Silicon Valley Bank's floating losses to be further exposed, and further questions the authenticity of Silicon Valley Bank's capital adequacy ratio, leading to more serious liquidity problems. Under the strong run-on depositors, Silicon Valley Bank ultimately went bankrupt.

## **3. Corresponding Enlightenment and Thinking**

### **3.1. Make sufficient early warning to ensure capital adequacy and liquidity**

From the Silicon Valley bank bankruptcy incident, we see that the liquidity pressures on banks may stem from both sides of the balance sheet. On the asset side, unexpected high loan default rate and impaired asset sales can cause liquidity problems; on the liability side, unexpected large amounts of cash withdrawals can also cause liquidity problems. The capital of the bank is an effective allocation as a buffer to absorb the corresponding losses, so the enterprises should have sufficient liquidity assets and capital to deal with the liquidity risks, but the current assets and capital retained will also make the enterprise lose the opportunity cost of profit. The more effective solution should be for banks to combine information technology with the financial industry, form a corresponding scientific and timely detection mechanism, and accurately predict the daily withdrawal demand as accurately as possible.

### **3.2. Diversify investment and diversify risks**

A large number of deposits in Silicon Valley Bank come from high-tech innovative start-ups in Silicon Valley, while Silicon Valley Bank allocates a large number of securities at the asset end, so there is a high concentration in both debt and asset end. Therefore, when commercial banks focus on the development of customers and businesses in a certain field, they should pay close attention to the risk concentration of industries, regions, customers and products, and at the same time adopt diversified investment methods to achieve the purpose of dispersing the asset portfolio.

### **3.3. Improve the corresponding institutional guarantee to provide institutional guarantee for bank bankruptcy**

After the bankruptcy of Silicon Valley Bank, FDIC took over Silicon Valley Bank, providing protection for the depositors of Silicon Valley Bank, and reducing the impact of bank collapse on the whole macro society and economy. Governments should also establish corresponding deposit insurance mechanisms and establish similar FDIC insurance disposal rules. The government should also adopt existing mechanisms or other ways to timely supervise and supervise market changes, and better assess the risk status of banks, so as to take corresponding measures.

## **4. Summary**

To sum up, through the in-depth study of bank bankruptcy events, the main causes of bank bankruptcy can be identified, and corresponding measures can be formulated to avoid the occurrence of similar events in the future. This is crucial to maintaining the stability of the financial markets. The study of bank bankruptcy events can help participants in the financial market, such as investors, governments and banks themselves, to understand credit risks, market risks, liquidity

risks and a series of bank risks, so as to make wise investment decisions and operation and management strategies.

## References

- [1] Song Xia. Reasons and inspirations for the bankruptcy of Silicon Valley Bank [J]. Cooperative Economy and Technology, 2024 (03): 56-58.
- [2] Xiaoxue Xie. The bankruptcy of Silicon Valley Bank and its implications for commercial banks [J]. China Finance, 2023 (07): 34-35.
- [3] Barbara Casu. Claudia Girardone. Philip Molyneux. Introduction to Banking [M]. Guo Ning, Wang Tao, trans. Beijing, Chinese Renmin University Press, 2020.