Proceedings of the 8th International Conference on Economic Management and Green Development
DOI: 10.54254/2754-1169/122/2024.17717

Strategic Suggestions for Banks to Deal with Balance Sheet Risk

Hei Kiu Deng[1,a,*,†], Jiayu Kou[2,b,†]

[1]*Pomfret School, United States of America*
[2]*School of International Trade and Economics, University of International Business and Economics, Beijing, 100029, China*
a. hqtangus@gmail.com, b. 202102139@uibe.edu.cn
**corresponding author*
[†]These authors contributed equally to this work and should be considered co-first authors.

Abstract: Silicon Valley banks' collapse resulted from poor investment decisions (mismanagement of assets and liabilities), causing a bank run due to substantial losses. This paper explores the causes of Silicon Valley Bank's failures due to exposure to balance sheet risks. Its failure profoundly affected the balance sheet risk management of small and medium-sized banks in the US and China. We take a Chinese bank (Guiyang Rural Commercial Bank) to analyze its situation and problems guided by the lessons learned from the SVB incident. On this basis, we propose strategic recommendations for dealing with balance sheet risk and the possible future direction for addressing the balance sheet risk of Guiyang Rural Commercial Bank.

Keywords: balance sheet risk, banks, investment decisions.

1. Introduction

1.1. Overview of Silicon Valley Bank

Established in 1983, Silicon Valley Bank was, just before collapsing, America's 16th largest commercial bank. It provided banking services to nearly half of all U.S. venture-backed technology and life science companies [1].

SVB benefited hugely from the tech sector's explosive growth in recent years, fueled by ultra-low borrowing costs and a pandemic-induced demand for digital services.

According to financial statements, the bank's assets, which include loans, more than tripled from \$71 billion at the end of 2019 to a peak of \$220 billion at the end of March 2022. Deposits ballooned from \$62 billion to \$198 billion over that period, as thousands of tech start-ups parked their cash at the lender [1].

1.2. The Silicon Valley Bank Incident in Detail

On March 8, Silicon Valley Bank announced a \$1.8 billion loss on the sale of securities, including the Treasury and mortgage bonds, which had lost significant value over the previous year due to an aggressive series of interest rate hikes at the Federal Reserve [1].

DOI: 10.54254/2754-1169/122/2024.17717

The next day, shares of Silicon Valley Bank fell 60% and dragged other bank shares down with it as investors began to fear a repeat of the global financial crisis. As the panic spread, venture capital firms began withdrawing their money from Silicon Valley Bank. The rapid withdrawal of funds gained momentum, putting Silicon Valley Bank on the verge of collapse since the bank could not generate enough cash to meet the needs of depositors [2].

The Federal Deposit Insurance Corporation, which protects the financial system's stability, took over Silicon Valley Bank to protect depositors.

1.3. Balance Sheet Risks Exposed by the Incident

The SVB collapse was a classic case of an asset/liability duration mismatch and a rapidly rising interest rate. To get better returns on its investments, SVB put its assets in long-dated government bonds, which were supposed to be risk-free. Its liabilities were demand deposits that start-ups could withdraw at any time. As the United States Federal Reserve System aggressively raised rates to fight inflation, the long-duration assets lost significant value, whereas the liabilities hardly budged [3].

1.4. Impact of the Silicon Valley Bank Incident on U.S. Banking and Global Financial Markets

The collapse of Silicon Valley Bank has had a particular impact on the U.S. banking industry. Affected by the incident, U.S. banking stocks plummeted. The run on Silicon Valley Bank triggered a chain reaction, and various U.S. banks experienced different runs.

In a sign that regulators are concerned about broader financial chaos, the Fed said it would make additional funding available for eligible financial institutions to prevent the next SVB from collapsing.

The business model of Silicon Valley Bank is standard. The market generally believes that the probability of systemic risk caused by Silicon Valley Bank's failure is insignificant.

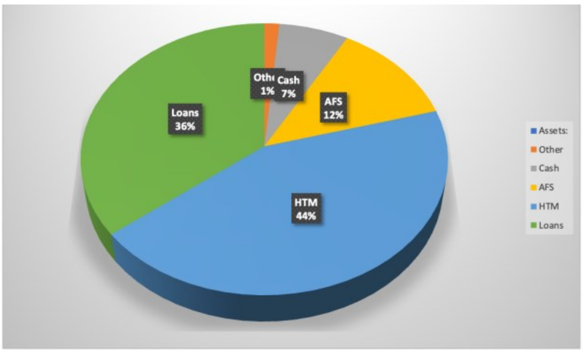
After the 2008 financial crisis, U.S. regulators have accumulated more experience in taking over bank bankruptcies. With the intervention of the FDIC, financial risks should be controlled and managed early [4].

2. In-depth analysis of the SVB incident

2.1. SVB’s deposit structure

SVB's unusual deposit structure has made it an outlier in its peer group. Among all its deposits, nearly 94% are uninsured [5]. Since the Federal Deposit Insurance Corporation (FDIC is a federal agency that responds to insuring deposits of U.S. commercial and saving banks. Also, it is responsible for controlling the adverse effects caused by bank failures) does not protect this kind of deposit; to cut the loss in time, those uninsured depositors would be very sensitive to the bank's solvency risk (i.e., the risk which refers to a bank does not have enough money to pay back the deposits to its depositors). Thus, when there is an implication of trouble leaking to them, they would be more likely to withdraw their deposits and run. Therefore, such a high portion of uninsured deposits makes SVB very fragile to a liquidity crisis and more likely to be exposed to a bank run.

2.2. SVB's asset structure



Figrue 1: Asset Structure of SVB

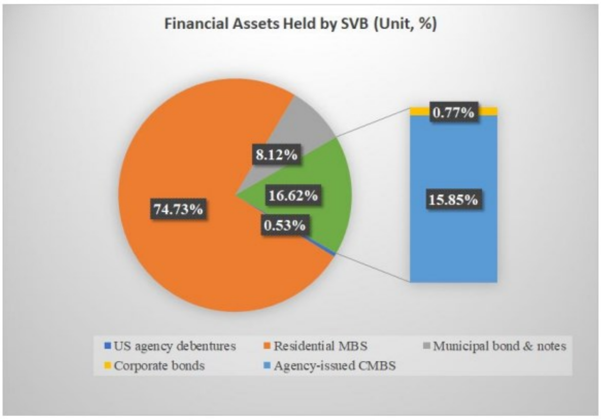


Figure 2: Financial Assets Held by SVB

High-Quality Liquid Asset (HQLA) refers to assets that can be easily converted into cash with tiny or no value loss. Usually, regulations would mandate the banks to a certain level of HQLA to prevent them from lending too many short-term debts, which would cause them to be exposed to insolvency. HQLA can be categroied as Avaliable for Sale (AFS) or Held to Maturity (HTM). AFS is the assets the financial institutions purchase and intend to sell before maturity. AFS is reported at fair value, an asset value determined by the market and agreed upon by the willing buyers and sellers. Thus the value of AFS is volatile based on different market conditions, and the positive or negative differences in such values correspond to the terms – unrealized gain & losses (i.e., unrealized gain and losses refer to the gain&losses in the paper values of the assets which assets holders have not yet sold). Under AFS, the unrealized gains and losses are not reflected in the bank's net income part in the income statement but show up in Other Comprehensive Income (OCI) in the equity section of the balance sheet. Thus AFS does affect the bank's capital. On the other hand, HTM is the assets that are purchased to be held until maturity. Although the change in the fair value of HTM generates unrealized gain & loss, conventionally, its unrealized gain & losses would not be shown up on the accounting statements. Such property of HTM created an excellent place for the banks to bury their losses, thus providing a "safety cushion" for their speculative behaviors. From the figures 1 and 2, we can see that, in 2022, over half of the total assets are AFS & HTM, and most portions are occupied by HTM. Among all the HTMs, about 75% are MBS which holds a very long maturity and very high duration (i.e., duration is a measure of assets' sensitivity to the interest rate changes), plus the durations of most AFS & HTM are all relatively high. Such an investment mechanism has increased

DOI: 10.54254/2754-1169/122/2024.17717

the weighted average duration of the bank's portfolio from 3.7 (two years ago) up to 6.2 (2022), indicating a very high sensitivity to changes in interest rates. Therefore, since the FED started cutting rates in 2022, SVB's portfolios have already incurred significant unrealized losses from such change (interest rate and asset prices are negatively correlated). Most of the losses have been hidden from the balance sheet.

2.3. SVB's client type

Private equity (P.E.) refers to investment funds from high-net-worth and limited partnerships, which invest in the shares and gain control of non-publicly listed mature companies. Private equity firms would spend vast amounts of money on a single firm and purchase its 100% ownership. In this way, they can remold the invested firms as they wish, and if such reform is successful, it will bring them significant profits. On the other hand, venture capital (V.C.) refers to the investment capital provided by V.C. firms or funds which invest in startups early-stage & emerging companies that have been deemed to have the potential to generate high growth rates and above-average returns. Unlike PE, most V.C. firms would not choose to be fully in charge of a single firm by spending much money on its equities. Instead, they prefer distributing their investments to different startups to spread their risk. Thus, even if a few startups fail, it will only affect some of the funds of V.C. firms substantially. However, P.E. and V.C. are exposed to the risk of large-scale invested firms collapsing. Also, such risk may significantly lower the funds' profitability and even wipe out all the investment capital. From the data provided by the SVB itself, most of its banking client firms are P.E. and V.C. related. Under FED's rate hiking background, lending became much more expensive than before for all firms, especially startups. The difficulties in fundraising created a hazardous environment for firms which could easily lead them to fail. Therefore, increased the risk exposures of P.E. and V.C. In order to limit their risk exposures, many P.E. and V.C. firms started to withdraw and shift their money to some other assets that could generate good yield under rate-hiking conditions at a lower risk, thus forcing the SVB to deal with a massive withdrawal frenzy. The sudden dry-out of the P.E. and V.C. funds seriously challenged the bank's solvency, making it much more vulnerable to a bank run.

Interactions of the three main factors create a general model of how the collapse happened (Figure 3):

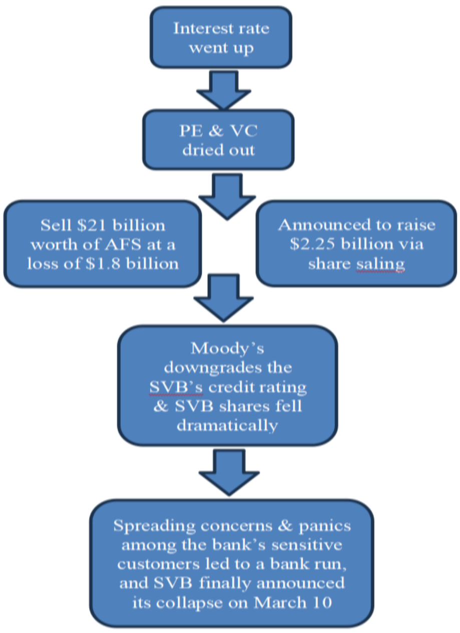


Figure 3: General model of how the collapse happened

DOI: 10.54254/2754-1169/122/2024.17717

As the previous schematic diagrams show, after the FED started its interest rate hiking policy, many P.E. and V.C. groups chose to withdraw and put their money into other lower-risk assets to limit the risks. This sudden withdrawal frenzy challenged the solvency of the SVB. In order to satisfy its clients' liquidity needs, the bank decided to sell $21 billion worth of its AFS. However, due to the increasing rate, the asset price dropped quickly, and the bank had to sell those AFS at a loss of $1.8 billion. At the same time, to cover those losses, the bank announced raising $2.25 billion by selling its shares. Unfortunately, its vast losses and share sales announcement raised concerns in the market about its operations. Moody's, an American credit rating agency, decided to downgrade SVB's credit rating, which led to a substantial fall in its share price. After that, many of its sensitive clients worried about its solvency and started withdrawing their money. The advanced social media accelerated the spread of such panic among the bank's sensitive customer groups and finally caused the bank to run. On March 10, SVB could not bear such massive withdrawals and thus announced its collapse.

2.4. Risk Management

Failure of risk management played a significant role in the demise of SVB, as it is the root of the whole failure. According to a review by the Federal Reserve, SVB failed due to extremely poor bank management, weakened regulations, and lax government supervision1. The Federal Reserve's review of its supervision and regulation of SVB found that regulatory standards for the bank were too low, the supervision of the bank did not work with sufficient force and urgency, and contagion from the firm's failure posed systemic consequences not contemplated by the Federal Reserve's tailoring framework. The report also found that when supervisors did identify vulnerabilities, they did not take sufficient steps to ensure that SVB fixed those problems quickly enough. The report represents a self-assessment that takes an unflinching look at the conditions that led to the bank's failure, including the role of Federal Reserve supervision and regulation. The failure of SVB demonstrates weaknesses in regulation and supervision that must be addressed.

The report outlines four key takeaways from the review of the Federal Reserve's supervision and regulation of SVB:

SVB's board of directors and management failed to manage their risks.

Supervisors did not fully appreciate the extent of the vulnerabilities as SVB grew in size and complexity.

When supervisors identified vulnerabilities, they did not take sufficient steps to ensure SVB fixed those problems quickly enough.

The board's tailoring approach in response to the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) and a shift in the stance of supervisory policy impeded adequate supervision by reducing standards, increasing complexity, and promoting a less assertive supervisory approach.

In conclusion, the failure of SVB was due to a combination of factors, including poor bank management, weakened regulations, and lax government supervision.

2.5. Post-event Handling

On March 10, the California Department of Financial Protection and Innovation (DFPI) closed the SVB and appointed the FDIC as the bank's receiver. Two days later, to limit the scale of bank runs and their negative effect on the broader economy, the U.S. Treasury approved the systemic risk exception, which authorized the FDIC to not only guarantee the insured deposits but also vouch for the uninsured deposits of the bank. After that, to provide extra liquidity for the banks to handle the repercussions of the SVB's collapse, the Board of Governors of the Federal Reserve System (FRB) developed a "Bank Term Funding Program ."It allows the eligible banks to receive a one-year loan

DOI: 10.54254/2754-1169/122/2024.17717

from Regional Reserve Banks. On March 13, the FDIC announced to reopen the SVB as a newly organized bridge bank – Silicon Valley Bridge Bank, N.A. A *bridge bank* is a chartered national bank designed to ensure a smooth transition during the time between the collapse of the bank and the final orderly resolution posted and implemented by the FDIC. Usually, it would undertake the deposits and certain other liabilities and purchase certain assets of the failed banks; plus, a board appointed by the FDIC should operate it. The FDIC transferred insured and uninsured deposits, substantially all assets, and all Qualified Financial Contracts to that bridge bank based on the governmental instructions. Also, normal banking activities and services, including online banking, were resumed. Such government response has been treated as an unwanted "bailout" by the public and criticized as a misuse of taxpayer's money. Some have also worried that such abuse of "bailout" would cause increasing Too Big to Fail and Moral Hazard issues (1. "Too big to fail": Certain financial institutions are too vital to the whole financial system, and their failure would generate a financial cataclysm. Thus, to prevent their collapse, the government has to assist them, and such foreseeable assistances make those institutions corrupt into "risk lovers." (2. "Moral Hazard": a party misuses its financial resources and takes outrageous risks in a desperate attempt to earn a profit), exacerbating the crisis's adverse impacts. However, the government has informed that the bridge bank would not rescue the shareholders, certain unsecured debt holders, and the management of SVB. Also, such assistance will not be universally available to all financial institutions. The cost of deposit protection will be fully covered by the proceeds of selling the bank's assets without using the taxpayer's money. Hence, there would be no damage to taxpayers' benefits, and the Moral Hazard problems could be restricted to a minimum level. In addition to all those governmental financial aids, after a lengthy review and investigation, on April 28, the FRB released a report regarding its negligence in its supervision and regulation of SVB and a renewed version of supervisory materials issued to SVB in recent years. Followed by DFPI has also come up with a report on its oversight of the regulation of SVB based on an overall reappraisal of circumstances. FRB and DFPI have examined the factors that contributed to the bank's failure and introspected their roles played in the event. Besides, the U.S. Government Accountability Office (GAO) also wrote a report on April 28 to determine the reasons for SVB's collapse and remind the public that its unadopted suggestion that considering noncapital triggers in the regulations can help prevent the occurrence of a similar event.

2.6. Influences

Based on the previous part, SVB’s heavy investment in the US government bonds led it to be exposed to a huge interest rate risk and a serious duration mismatching issue which finally brought out a liquidity crisis, thus caused the bank’s collapse. Since SVB’s failure revealed a potential risk of investing in governmental bonds, such investment would become less attractive. Therefore, the government may have to face some borrowing difficulties. Notice that, as government borrowing becomes more difficult, in order to provide them with enough funds, the central bank may choose to purchase government bonds directly from the market. Hence, the money supply in circulation would be pumped up which will exacerbate the high inflation situation. Besides, the bank’s failure can also negatively impact the venture debt industries. Due to the world’s rising uncertainties caused by the Russia-Ukraine War, since the beginning of 2022, venture capital deal volume has been steadily decreased. As a major supplier of venture capital, SVB played an very important role in the US venture debt industries. It’s dissolution will aggravate the panic of the world investors, thus increase their fear and distrust for investing in start-ups. As a result, the venture capital will dry up much more quickly which would generate a large scale borrowing difficulty for those early-stage, fast-growing companies. Under this situation, to lower their cost, most start-up companies will choose to delay their hiring decisions or cut the existing job positions. In addition, the shortage of starting funds can also give rise to a massive collapse of high tech firms with extensive capital demand. Therefore, in

DOI: 10.54254/2754-1169/122/2024.17717

general there will be fewer jobs available in the country, the level of unemployment will increase and the living standards of the citizens will be driven down. Furthermore, such bank's dissolution will induce certain shifts in bank regulation system as well. From the review provided by the FRB, the regulators informed that they will: 1. focus more on both the recognition of risks and the actions. 2. Enhance the regulations on the fast growing financial institutions to avoid the intentional mismanagement. 3. Need for independent analysis to challenge the regulated firms. 4. Apply a tighter scrutiny on bank's internal risk-management processes etc. In addition, by the review issued by the DFPI, it states that the local regulators will: 1. Implement more frequent monitoring for DFPI-charted banks and credit unions. 2. Coordinate with FED to develop stronger & more effective systems to promptly rectify deficiencies. 3. Review supervisory plans and staffing processes for large banks with assets above $10 billion; pay more attention to the banks with assets above $50 billion. 4. Heightened the management of large banks' uninsured deposits. 5. Introduce certain changes to Early Warning Module etc. Last but not least, SVB event also provided valued reflections on the future risk management: 1. Need to pay more attention to the unrealized losses on fixed-income investments due to rapid rising interest rate. 2. Realize the importance of the client type diversification for the bank. 3. Treat the portion of uninsured deposit as an essential factor in risk management. Moreover, the effect of social media should not be ignored during the US bank crisis. Due to the development in social media, the panics are able to be spread much faster and wider, which greatly shortens the "coming time" of a bank run. Besides, it can also speed up the bank run's contagion effects to the other banks, thus further deteriorate the bank crisis. Therefore, how to introduce the social media effect as an vital factors into daily financial regulations and risk management will be an impending challenge for the regulators and the bank's risk management teams.

3. Current situation and problems of rural commercial banks in Guiyang

3.1. Basic information about Guiyang Rural Commercial Bank

Guiyang Rural Commercial Bank's operating income was 148 billion RMB in the 2022 annual report, an increase of 12.77% from the previous year. This indicates that the bank has expanded its business and achieved pleasing operating income growth [6].

- Total assets reached 148 billion RMB in the 2022 annual report, an increase of 12.77% from the previous year, which shows that the bank's asset size is increasing and the asset quality is relatively stable.
- Total loans (excluding accrued interest) were 114 billion RMB in the 2022 Annual Report, an increase of 13.17% from the previous year. Total deposits (excluding accrued interest) were 123 billion RMB, an increase of 22.09% from the previous year. This indicates that Guiyang Rural Commercial Bank has good growth momentum in the loan and deposit business.
- The capital adequacy ratio is 11.04% in the 2022 annual report, a slight increase. This indicates that the bank's capital strength is relatively stable.

3.2. Status of non-performing loan (NPL) ratio of Guiyang Rural Commercial Bank

The significant increase in the non-performing loan (NPL) ratio of Guiyang Rural Commercial Bank in July 2018 soared from 4.13% to 19.54%, a direct increase of 4.7 times, while the capital adequacy ratio plunged to 0.91%. A small local bank was suddenly exposed to the public because of adverse events, which triggered the market's concern about the risk of disposal of NPLs of agricultural and commercial banks. At this time and Guiyang Agricultural and Commercial Bank of Guizhou Huaxi Bank regional competition in a non-performing assets rate of only 2.74%; in terms of agricultural and commercial banks as a whole, the non-performing loan rate industry average value of 5%, and Guiyang Rural Commercial Bank of non-performing loans rate of more than about four times, visible

DOI: 10.54254/2754-1169/122/2024.17717

in the loan of the risk of the high. The bank's overdue loans surged as early as late 2016, accounting for nearly 30% of total loans, indicating that Guiyang Agricultural and Commercial Bank's NPL risk management problem has existed for a long time.

Total overdue loans rose sharply in 2017, reaching 12.991 billion yuan, nearly nine times more than in 2016.

The total amount of overdue loans rose sharply in 2017, reaching 12.991 billion, nearly 9 times more than 2016, an increase of nearly 130 times in five years, which formed a considerable repayment pressure on Guiyang Agricultural and Commercial Bank, that is, due to the accumulation of non-performing loans in the previous period, which finally reached a peak in 2017, due to the centralized exposure of the risk, and because of the missing data of 2015 and 2016, all the data of 2014 and 2017 are compared temporarily, we can see that In 2017, the number of loans overdue from 1 year to 3 years is the largest, reaching 6.963 billion yuan, which means that the loans need to be repaid between 2014 and 2016, and when the old overdue loans are not repaid, the new loans are overdue again, causing excellent liquidity pressure on Guiyang Agricultural and Commercial Bank, and the expected amount of loans from one quarter to one year reaches 2.818 billion yuan, affecting the short-term liquidity of the bank, and it may be very difficult for the bank to repay the old loans, and it may be very difficult for the bank to repay the new loans. The bank's short-term liquidity is likely to become a bad debt, while the total amount of overdue loans from 2016 is 1,487 million yuan, much smaller than that of loans overdue from one quarter to three years in 2017. It is clear that structurally it is possible to find that.

At least in terms of the number of overdue loans, there is a severe problem with loans overdue from 90 days to 3 years, which reflects that Guiyang Agricultural and Commercial Bank had severe problems with loan issuance between 2014 and 2017 years. The lax examination of loan applicants became a significant hidden danger for the 19% non-performing loan ratio 2017. Due to the missing data for 2015 and 2016, the data for 2014 is compared with that of 2017 for the time being.

Comparing the data of 2014 with that of 2017, we can see that the number of loans overdue from 1 year to 3 years was the largest in 2017, reaching 6.963 billion yuan, which means that the loans needed to be repaid between 2014 and 2016, and in the case that the old overdue loans were not repaid, the new loans were overdue again, which caused excellent liquidity pressure on Guiyang Agricultural and Commercial Bank. The number of loans expected to be made from one quarter to one year also reached 2.818 billion yuan, a significant increase in the NPL ratio of Guiyang Agricultural and Commercial Bank. The amount of loans expected to be overdue in one quarter to one year has reached RMB 2,818 million, affecting the bank's short-term liquidity and likely turning into doubtful debts. In contrast, the total amount of overdue loans from 2016 is RMB 1,487 million, much smaller than that of the loans overdue in one quarter to three years in 2017. It can be found from the structure, at least from the point of view of the number of overdue loans, there is a severe problem with loans overdue from 90 days to 3 years, which also reflects that Guiyang Agricultural and Commercial Bank has severe problems in loan issuance between 2014 and 2017. The very lax examination and approval of loan applicants became a critical hidden danger for the NPL ratio of 19% in 2017.

3.3. Risks and management issues

3.3.1. Market positioning still needs to be consolidated

Guiyang Rural Commercial Bank's market positioning has been unclear in recent years. There are problems in customer selection; starting from 2017, the bank's loans to the customer group of agriculture-related economic organizations gradually decreased, and even starting from 2018, the bank's interest income on loans to agriculture-related economic organizations was zero, indicating that the bank has lost confidence in lending to the customer group of new business organizations.

DOI: 10.54254/2754-1169/122/2024.17717

Regarding regional selection, the bank is based on the county market, and its support for the rural financial market has declined. Non-farm loans have increased by and by, with frequent risks, and there is a large gap between the investment efforts and targets of agriculture-related loans and loans for small, medium, and micro-enterprises, resulting in the loss of some customers in the rural financial market, which has made the bank's net profit decrease in recent years.

3.3.2. The operation concept and business development form contradict the market orientation

The market positioning of Guizhou Rural Commercial Bank is "serving the three rural areas, serving the community, serving the medium-sized and small and micro-enterprises." However, in the fierce market competition, risk control awareness has been relaxed, which has led to an increase in the non-performing loan rate and a significant decline in the quality of credit assets of rural commercial banks in the past few years. Regarding business development, firstly, traditional agricultural credit has decreased; secondly, the concentration of large-value credit has increased.

The proportion of traditional agricultural agriculture, forestry, animal husbandry, and fishery loans of Guiyang Agricultural and Commercial Bank decreased in 2018 from 4.56% in 2017 to 3.87% in 2018. In contrast, the concentration of large-value credit was higher, mainly concentrated in the wholesale and retail industry, real estate industry, construction industry, manufacturing industry, etc., accounting for 29.08%, 17.03%, 11.4%, and 7.01%, respectively, in 2018. These industries are susceptible to the impact of macroeconomic policies, and their potential non-performing assets will increase, leading to a surge in industry risks.

4. The revelation of the Silicon Valley Bank incident to Guiyang Rural Commercial Bank

The revelation of the Silicon Valley Bank incident to Guiyang Rural Commercial Bank:

First, the importance of risk management. Banks are the institutions responsible for storing customer funds, and they should adopt tight risk management measures to ensure the safety of funds. This incident shows that neglect of risk management can lead to substantial economic losses, which will not only affect the bank itself but also cause harmful damage to the customers and the financial system of society as a whole.

Second, transparency and accountability. The transparency of financial regulation means that the objectives, framework, decisions and basis, data, and other regulation information must be fully, conveniently, and timely communicated to the public. Increasing regulatory transparency helps raise regulatory regulations and practices and reduces market uncertainty. Greater transparency would also enhance the credibility of regulators. Accountability means that regulators give accurate and reasonable explanations for all decisions. At the same time, regulatory authorities are accountable not only to the government or legislature to which they are entrusted but also to the regulated institutions and the public. Although the principle and concept of an accountability system have been widely accepted, there are still many difficulties in practice. Generally speaking, implementing accountability in the strict sense requires the support of a whole set of systems and measures, including legislative and executive oversight, strict procedural requirements, public participation, independent judicial review, etc. A lack of transparency and accountability could jeopardize the stability and reputation of banks.

Third, regulatory and institutional reform. Regulators are likely to review their regulatory policies and then take steps to strengthen supervision and risk management requirements for financial institutions to prevent similar incidents from happening again.

In summary, the failure of Silicon Valley Bank is a reminder of the importance of risk management, transparency and accountability, regulation, and institutional reform. These can help Guiyang Rural

DOI: 10.54254/2754-1169/122/2024.17717

Commercial Bank be more careful in future financial decisions to provide enlightenment for establishing a long-term healthy financial system.

5. Strategies and suggestions

5.1. Establish a scientific balance sheet risk management system

First, risk identification and assessment. Banks should comprehensively identify and evaluate the risks on their balance sheets, such as credit, market, liquidity, and other risks. By establishing a risk assessment model, banks can quantify and evaluate different risks to determine the extent of their impact on the balance sheet. To reduce or eliminate the risk to the bank—secondly, monitoring and reporting. Banks should establish an accurate and effective monitoring and reporting mechanism to monitor changes in balance sheet risks regularly, observe whether there are adverse changes, and provide accurate and timely risk reports to senior management so that they can make corresponding countermeasures. This can help banks find risk signals in time and take corresponding risk management measures—third, risk management culture. Guiyang Rural Commercial Bank should establish a risk management culture so that every staff member can remember the importance of this culture and make it part of the bank's core values and daily operations. The corresponding approach is to strengthen the risk awareness and training of employees, establish a risk management responsibility and accountability system, and promote the participation and cooperation of all employees.

5.2. Improve the risk identification and evaluation mechanism

First, establish a comprehensive risk classification system. Banks can establish a comprehensive risk classification system to classify and classify all kinds of risks. This can include credit risk, market risk, liquidity risk, etc. Through clear classification, banks can better understand the characteristics and impact of different types of risks, identify and evaluate them in a targeted manner, and then formulate corresponding management measures. Second, develop risk assessment indicators and models. Guiyang Rural Commercial Bank can develop a set of assessment indicators and models applicable to various types of risks, and make continuous adjustments according to the problems faced to quantify and measure the level of risk. These indicators and models can be constructed based on historical data, market conditions, etc., to help banks assess the likelihood and impact of risks more accurately—third, continuous risk monitoring and response. Guiyang Rural Commercial Bank should establish continuous risk monitoring and response methods to accurately and timely track and respond to changes in risk. This includes establishing early warning indicators and mechanisms and developing corresponding risk management plans and measures to ensure rapid response and adjustment when risks emerge or intensify.

5.3. Establish a scientific balance sheet risk management system

First, risk assessment. Conduct a comprehensive balance sheet risk assessment to identify possible risk factors. This includes quantitative and qualitative assessments of the potential risks of assets and liabilities, such as credit risk, interest rate risk, liquidity risk, etc. Second, develop policies and processes. Develop policies and procedures based on the results of risk assessment. These policies and procedures should specify each business's risk tolerance, risk limits, approval procedures, etc., to ensure consistency and effectiveness of risk management. Third, strengthen internal control. Ensure the effectiveness of the internal control system, including the establishment of an appropriate risk management framework, compliance procedures, etc. At the same time, train employees to improve their awareness and ability of risk management and strengthen the monitoring and control of risks.

DOI: 10.54254/2754-1169/122/2024.17717

Fourth, work with regulators. Maintain close communication and cooperation with regulatory authorities and promptly understand and comply with relevant laws and regulations. Establish an excellent cooperative relationship with the regulatory authorities, accept the guidance and supervision of the regulatory authorities, and timely report risk events and risk management measures.

6. Conclusion

Silicon Valley Bank (SVB) was shut down in March 2023 by the California Department of Financial Protection and Innovation. Based in Santa Clara, California, the bank was shut down after its investments greatly decreased in value and its depositors withdrew large amounts of money, among other factors. Later in March, First Citizens Bank bought up all deposits and loans of the failed bank. It's resulted from poor investment decisions (mismanagement of assets and liabilities). By analyzing the reasons why Silicon Valley Bank is white, and taking Guiyang Rural Commercial Bank as an example, this paper puts forward strategic suggestions to deal with the balance sheet risk and possible directions to solve the balance sheet risk in the future and believes that managers need to pay attention to risk management, transparency and accountability, supervision and institutional reform.

Acknowledgements

Hei Kiu Deng and Jiayu Kou contributed equally to this work and should be considered co-first authors.

References

[1] *Zi-Yuan, X. . (2010). Silicon valley bank mode and its implication on financing of s&t smes in china. Innovation.*
[2] *Schlesinger, Jacob, & M. (2000). Fed may weigh sharper growth curb, lifting rates a half point, report hints. Wall Street Journal Eastern Edition.*
[3] *He, Z. , Krishnamurthy, A. , & Milbradt, K. . (2016). What makes us government bonds safe assets?. The American economic review, 106(5), 519-523.*
[4] *Alnasrawi, H. . (2016). The role of international financial reporting standards in reducing the financial risks.*
[5] *David Hayes (2023) SVB, Signature racked up some high rates of uninsured deposits. https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/svb-signature-racked-up-some-high-rates-of-uninsured-deposits-74747639*
[6] *Min, T. , & Li, J. . (2017). Reflections on transformation of rural commercial banks' branches under the new normal:the case for guangzhou rural commercial bank. West China Finance.*