

# Banks and Financial Institutions: Assessment of Risk Management Strategies

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**Abstract.** Taking the banking sector as a perspective, this article comprehensively analyzes risk management from four perspectives: liquidity, credit, market, and systemic risk. This paper points out that banks need to closely monitor these risks and ensure their stability and continuity of operations during the epidemic through effective risk management measures. In terms of liquidity risk, banks need to ensure adequate liquidity reserves and maintain funding flexibility through the establishment of an effective management framework and regular stress tests. The key to controlling credit risk lies in rigorous credit review and assessment to ensure that loans are in line with sustainability and repayment capacity. It requires active risk hedging strategies to reduce the market volatility shock to the portfolio by countering market risk. Systemic risk is guarded against by complying with regulations, maintaining adequate capital buffers, and cooperating with regulators. The further research could delve into specific programs to combat these risks.

**Keywords:** Risk Management Strategies; Banks; Financial Institutions; Financial Stability.

## 1. Introduction

In the year 2020, the outbreak of the COVID-19 pandemic has created multifaceted risks and threats to the banking sector, posing a serious challenge to the banking economic system. The problems faced by banks during this period are not limited to the constraints of their own business operations, but also involve a deep connection with the global macroeconomy.

First, the global economic stagnation triggered by the epidemic has made it difficult to conduct banking business. This not only manifested itself in the loss of customer base and shaken trust, but more critically, it affected the stability of banks' internal operations. In this uncertain environment, banks had to cope with a lack of liquidity due to the sharp downturn in economic activity, and investment and lending programs came under extreme pressure, creating a multifaceted banking dilemma.

Second, investment products faced great volatility. The global economic uncertainty brought about by the pandemic had dealt a severe blow to investor confidence, leading to market volatility. Banks, as core participants in the financial markets, were exposed to great uncertainty and risk in their investment portfolios. This also had a direct impact on the profitability of banks and the soundness of their balance sheets.

At the same time, the tightening economic situation has led to a risk averse preference among businesses and individuals. During this period, many depositors opted for conservative financial strategies, and shunned highly leveraged investment activities [1]. This further increased the business uncertainty faced by the banking sector as its traditional deposit and lending models were challenged and depositors' caution made it difficult for banks to scale up their business.

In addition, the continued policy of interest rate hikes adopted by the Federal Reserve in response to the impact on the economy in the post-epidemic era also poses a significant systemic risk to the banking sector. The high interest rate environment has exposed banks to higher funding costs and squeezed profit margins, making them more vulnerable to economic downturns. Such policy decisions have implications for the healthy operation of the banking system as a whole.

Therefore, the impact of the 2020 epidemic on the banking sector is not just a momentary business standstill, but also a systemic risk challenge. Understanding this period helps to provide a deeper understanding of the resilience and sustainability of the banking sector, as well as providing a valuable

reference for developing more effective risk management strategies in the future. This paper analyzes the challenges faced by the banking sector in the post epidemic era in terms of liquidity risk, credit risk, market risk and systemic risk and briefly discusses possible solutions.

## 2. Liquidity Risk

At the peak of the global epidemic, in order to stimulate national consumption and promote economic growth, the United States adopted a policy of over-issuing money, which led to a rising inflation rate [2]. In order to curb this high inflation, the United States chose to continue to raise interest rates [2]. However, this decision triggered a serious problem of liquidity risk in the banking sector, of which the collapse of the Silicon Valley Bank in the United States has become a stark case in point. With the monetary overshooting and interest rate hike policy, Silicon Valley Bank was in great trouble. The double impact of asset depreciation caused by inflation and loan defaults triggered by the interest rate hike policy put the bank's balance sheet under heavy pressure, which ultimately led to the bank's collapse [3]. This fully highlights the fact that monetary policy decisions can pose a direct threat to the quality of a bank's assets and liquidity, especially in response to extreme situations.

The collapse of the Silicon Valley Bank became a classic example of liquidity risk, emphasizing that aggressive monetary policy and economic stimulus can lead to apparent growth in the short term but can trigger severe turmoil in the financial system in the long term. This phenomenon often involves excessive money supply, a low interest rate environment and over-reliance on debt. First, excessive monetary policy usually manifests itself in massive money supply growth to stimulate consumption and investment. In the short run, this may contribute to flooding markets with more money, pushing up asset prices and increasing the creditworthiness of firms and individuals. However, when this money supply is not effectively regulated, it can trigger inflation, weakening the purchasing power of money and ultimately creating a severe shock to the financial system [4]. Lower borrowing costs stimulate borrowing and investment activity. However, if maintained over a long period of time, it may lead to the formation of asset bubbles [5]. In addition, excessive reliance on debt may also lead to instability in the financial system. The rapid growth of debt may expose financial institutions and enterprises to debt-servicing risks, which may trigger a chain reaction and lead to a vicious circle in the financial system once market confidence is undermined [6].

In addition, the disruption in financial markets and the significant reduction in economic activity brought about by the global pandemic have created liquidity challenges for the banking sector, directly affecting its access to financing, its cost of financing and its ability to lend. This not only threatens the short-term liquidity of banks, but may also pose a challenge to their long-term operational stability and profitability. First, reduced market liquidity has led to a funding crunch. Banks typically rely on short-term financing instruments in the market to meet their short-term payment and working capital needs. When market liquidity decreases, banks may have difficulty in obtaining sufficient short-term financing in a timely manner, putting their funding liquidity under pressure. Second, the lack of market liquidity may increase the cost of financing. When access to financing in the market is limited, banks may be forced to pay higher interest rates to obtain the funds they need [7]. This raises banks' financing costs and reduces their profit margins, which may lead to damage to their profits. In addition, lower market liquidity may also have a negative impact on banks' lending capacity. Banks usually raise funds by taking deposits and issuing bonds, and then place these funds in the market through loans. However, if market liquidity is low, banks may have difficulty in obtaining sufficient funds for lending, thereby limiting their credit support to the real economy.

## 3. Credit Risk

During the epidemic, commercial banks almost globally were exposed to credit risk, stemming from the financial difficulties faced by businesses and individuals. At this time, there was an influx of higher risk in the form of loan defaults and delinquencies on other credit products. Enterprises

were affected by the epidemic and faced tremendous pressure on their operations, leading to an increase in loan delinquencies [8]. Specific sectors, such as tourism, catering and airlines, are at higher risk of NPLs as they are hardest hit by the epidemic. On the individual side, rising unemployment and lower salaries made loan repayments more difficult, impacting consumer loans and credit cards [9].

Meanwhile, the case of Credit Suisse Bank highlights the unique challenges faced by financial institutions. Around 2020, the bank suffered huge losses as a result of its involvement in highly leveraged speculative transactions, notably with the United States investment firm Archegos Capital Management [10]. Such highly leveraged speculative transactions put the bank in financial distress and demonstrated the vulnerability of financial institutions in the face of market volatility. The volatility of stock market prices, and in particular the unpredictable impact of the epidemic on them, exposed financial institutions to greater uncertainty in their portfolios. In addition, poor risk management contributed to the bank's losses, demonstrating a lack of adequate monitoring and control over high-risk transactions.

In the face of these credit risks, there is an urgent need for commercial banks to adopt effective risk management measures. This includes prudent loan review to ensure that the repayment ability of borrowers is adequately assessed during the loan disbursement process. At the same time, banks should implement flexible repayment arrangements to ease the financial pressure faced by customers and reduce the likelihood of default. A diversified investment portfolio is also key to reducing credit risk in order to diversify risks and improve overall risk resistance. Support from the government and regulators is also crucial to ensure the stability and sustainability of the financial system by putting in place effective regulatory measures. These initiatives will help commercial banks to be more resilient to the challenges of credit risk in the face of the current complex economic environment.

#### **4. Market Risk**

Central banks adopted accommodative monetary policies, such as lowering interest rates, to mitigate the worldwide economic turmoil triggered by the outbreak. However, to some extent, this measure has also galvanized the market risks faced by banks, in particular the challenges posed by interest rate volatility. While the move to lower interest rates was intended to promote borrowing and investment, commercial banks' net interest margins took a hit, with the spread between interest on loans and interest on deposits becoming narrower.

Tracing the storm of Credit Suisse Bank and the collapse of Silicon Valley Bank, although the cause and effect seem to be different, but they are closely linked to the current interest rate environment and the interest rate changes in recent years. An important reason for the collapse of Silicon Valley Bank was the rapid rise in short-end interest rates on U.S. debt after the Federal Reserve raised interest rates [3]. This highlighted the asset-liability management challenges for banks in a high interest rate environment, particularly the potential exposure to market risk in the face of rapidly rising interest rates.

Increased volatility in interest rates has also had a profound impact on banks' investment portfolios. Significant volatility in global equity markets, particularly the March 2020 U.S. equity market crash, led to significant losses in the investment portfolios of many banks. Banks such as Bank of America, Citigroup, JPMorgan Chase and Wells Fargo suffered losses of billions of dollars in their portfolios, highlighting the vulnerability of banks to market volatility [11].

Therefore, in the current market environment, banks are not only facing the challenge of net interest margins brought about by the central bank's easing policy, but also need to cope with the market risk brought about by interest rate volatility. Effective risk management strategies require banks to be more flexible in asset-liability management to adapt to the complex and ever-changing financial environment. Banks need to be prudent in their asset allocation strategies, pay attention to changes in the interest rate curve and adopt hedging instruments to minimize the impact of interest

rate volatility on their net interest income and portfolio value. Response to market risk will be a key factor for banks to maintain sound operations in the current financial landscape.

## 5. Systemic Risk

Basel III was developed to improve the quality of banks' capital and strengthen capital adequacy to ensure a more robust financial system in the face of future shocks. This regulatory framework played a key role during the epidemic. First, Basel III imposed more stringent capital requirements, with a particular focus on the quality of core capital, making it imperative for banks to ensure that their capital buffers are sufficient to withstand all types of risks. Second, the introduction of the concept of countercyclical capital buffers, which encouraged banks to accumulate capital during periods of economic growth in order to release it during economic downturns, strongly mitigated systemic risk.

During the COVID-19 period, regulators were particularly concerned about the capital adequacy of banks. On the one hand, regulators adopted a number of flexible and accommodative measures in the early stages of the epidemic to ease regulatory pressure on banks and delay or slow down the implementation of capital requirements [12]. On the other hand, regulators emphasized the importance of capital adequacy, particularly in maintaining the stability of the financial system. This flexibility does not imply a compromise on capital adequacy. On the contrary, regulators require banks to provide more transparent and accurate financial information and risk disclosures to better understand their capital positions and coping strategies. This provides the market and regulators with more adequate information to assess banks' risk exposure and overall stability.

In some countries, regulators conducted additional stress tests to assess the capital adequacy of banks under different economic and market scenarios [13]. This helps to ensure that banks are able to maintain adequate capital buffers in adverse scenarios. In addition, some regulators have adopted additional capital protection measures to ensure that banks have adequate levels of capital to protect the stability of the financial system [14]. By emphasizing capital adequacy, countercyclical capital buffers, and regulatory flexibility, the Basel III Capital Accord provides banks with a more robust foundation in turbulent times. Regulators' concerns and responses also provide strong support for the financial system in the face of unknown shocks.

## 6. Conclusion

Under the shadow of the epidemic, commercial banks inevitably face risk challenges from a number of sources, including liquidity risk, credit risk, market risk, and systemic risk. In these turbulent times, banks need to act with keen insight and decisiveness to safeguard their stability and continued operations. Liquidity risk management and control is the lifeline of commercial banking business. By ensuring adequate liquidity reserves and an effective liquidity risk management framework, banks are better able to cope with sudden withdrawal pressures and maintain flexibility in the use of funds. Credit risk control is the core of a bank's lending business. By strengthening the credit review and assessment process, banks are able to reduce the potential risk of non-performing loans and ensure that loans provided to customers are consistent with sustainability and repayment ability, thereby maintaining the health of the loan portfolio. In terms of market risk, banks should adopt a proactive risk-hedging strategy to reduce the impact of market volatility through diversification of their investment portfolios. Paying close attention to interest rate movements and how they may affect the portfolio will help hedge potential market risks more effectively. Finally, systemic risk protection requires banks to adhere closely to the international regulatory framework and maintain adequate capital buffers. All these risks do not exist independently, but are intertwined and mutually reinforcing. Commercial banks need comprehensive risk management at different levels to ensure that they can operate flexibly and robustly during an epidemic.

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