

Research on Risk Avoidance of Commercial Bank Investment

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Abstract. Commercial banks play a critical role in the economy by collecting deposits and extending loans to businesses and individuals. However, they face various investment risks that can have a significant impact on their financial stability and performance. This paper aims to study the strategies and methods of investment risk avoidance in commercial banks, including risk identification, assessment, and mitigation. The paper proposes effective avoidance measures such as diversification, hedging, and insurance, which contribute to the existing literature on commercial bank risk management. The study also highlights the importance of regulatory compliance and the impact of external factors such as economic cycles and investor behavior on risk management practices. The findings have important implications for regulators, investors, and banks to improve risk management practices and enhance their profitability and reputation while protecting them from severe financial losses. The paper concludes by recommending further research in areas such as developing more sophisticated risk management models and assessing risks in the new situation.

Keywords: Stock investment risk; expected return; risk aversion.

1. Introduction

In today's fast-changing and uncertain financial market, commercial banks face various risks in the investment process, such as credit risk, market risk and operational risk. These risks can have a significant impact on the soundness and profitability of banks [1]. Therefore, commercial banks need to actively take measures to avoid these risks and ensure the safety and return of their investment portfolios. This paper aims to discuss the strategies and methods of investment risk aversion in commercial banks, as well as the influence of key factors on the decision-making of hedging.

Banking has always been the cornerstone of any economy. Commercial banks play a vital role in the economic and financial cycle by providing loans, various financial services, and acting as intermediaries [2]. However, in the process of performing these functions, commercial banks face various types of risks. Identifying and managing these risks is critical to the financial stability and profitability of banks, as well as the overall health of the economy. This article focuses on the various risks that commercial banks face in their investments and clarifies some strategies to avoid risks.

2. Literature Review

In the past few decades, scholars have conducted extensive research results on commercial bank investment risk aversion. Many studies have focused on the avoidance strategies and methods adopted by commercial banks in the face of different types of risks. For example, diversification is widely recognized as one of the effective strategies for reducing portfolio risk. By diversifying portfolios across asset classes and regions, commercial banks can mitigate the impact of specific risk events.

In China, Yajing Wang and Xuejun Jia's research in 2007 indicated that commercial bank risk management is an important part of bank investment strategy [3]. However, in China, due to the limitations of the regulatory system, risk identification, and risk control technology, commercial banks often overlook investment risk aversion.

Moreover, regulatory policies and economic cycles have also had a profound impact on commercial banks' investment risk aversion. Changes in regulatory policies and fluctuations in the economic cycle can have an impact on the investment environment and risk expectations of commercial banks, thereby affecting their decision-making and strategy of risk aversion [4].

Wanli Zhang and Jing Luo discussed in detail how China's regulatory policies affect the risk aversion behavior of commercial banks in their article published in "Economic Research". They found that factors such as the strictness, focus and enforcement of regulatory policies will affect the risk avoidance strategies of commercial banks [5].

Berger, AN, Herring, RJ, Szegö, GP published research results in "Journal of Banking & Finance" which showed that changes in regulatory policies will have an impact on commercial banks' risk aversion strategies. In the case of stricter regulatory requirements, commercial banks usually pay more attention to risk management and avoidance [6]. The research published by Lepetit, L., Nys, E., Rous, P., Tarazi, A. in "Journal of Banking & Finance" focuses on the impact of economic cycle on bank risk aversion behavior. They found that during the period of economic contraction, banks tend to adopt a more conservative risk aversion strategy, while during the period of economic expansion, banks may relax their risk aversion [7].

In addition, the study also found that the use of risk management tools has played a positive role in the risk avoidance of commercial banks. Instruments such as financial derivatives, options, and insurance are widely used to hedge risk exposures, and commercial banks can buy these instruments to avoid potential losses.

Many researchers have studied the risks associated with bank investments. Mishkin believes that bank risk mainly comes from the uncertainty of asset and liability returns. Similarly, Allen and Gale also found the importance of diversification in the risk management process [8].

On the other hand, Stulz focused on risk management strategies, emphasizing the use of derivatives to hedge risks, and believed that risk management can help commercial banks maximize investment returns on the premise of meeting various financial and operating constraints.

In summary, commercial bank investment risk aversion is a complex issue involving many influencing factors and various risk aversion strategies. It is an important and ongoing area of research both in China and around the world. Through the comprehensive analysis of the existing academic research and practical experience, more effective risk avoidance strategies and methods can be provided to commercial banks. The following sections will discuss in detail the theoretical basis, practical experience, and influence of related factors on commercial bank investment risk aversion.

3. Risk Avoidance Research

3.1. Risk Identification

In order to minimize risk, it is necessary to first identify the different types of risk associated with investing in a bank. The main types include credit risk, interest rate risk, liquidity risk, and operational risk.

Credit risk refers to the possibility of loss due to a borrower's failure to repay any type of debt. Interest rate risk refers to the risk that changes in interest rates will lead to deterioration of the bank's financial condition. Liquidity risk refers to how a bank will be unable to meet its obligations as they mature without incurring unacceptable losses. Operational risk refers to the loss caused by imperfect or failed procedures, personnel and systems, or external events [9].

3.2. Risk Assessment

After identifying risks, the next step is assessment. This needs to be done both qualitatively and quantitatively. Qualitative assessment involves subjective judgment, while quantitative assessment involves the calculation of various risk measurement parameters, such as value at risk (VaR), probability of default (PD), loss given default (LGD), and exposure at default (EAD) [10].

3.3. Risk Avoidance Strategy

Risk mitigation strategies include diversification, hedging, and insurance. Asset diversification reduces concentration risk. Hedging usually involves the use of derivatives to offset changes in the value of assets and liabilities [11]. Banks can also transfer credit risk by purchasing credit derivatives

or purchasing insurance contracts to reduce operational risk. This paper will analyze the factors that affect the investment risk aversion of commercial banks from the micro and macro levels and further analyze and discuss the avoidance strategies and actions in combination with specific success and failure cases, aiming to improve the ability of commercial banks to deal with investment risks.

During the global financial crisis in 2008, this bank avoided a lot of risks through effective risk and balance regulations. Despite having a significant share of the mortgage securitization market, Credit Suisse outperformed many of its peers during the financial crisis, thanks to advanced risk management models that effectively identified and assessed potential risks.

China Construction Bank has strict systems and procedures for risk management. They conduct detailed risk assessments on all investment projects, including but not limited to market risk, credit risk, and operational risk. In addition, they evaluate the potential return of investment projects to ensure that the benefits of investment can cover the potential risks. During the global financial crisis in 2008, China Construction Bank successfully avoided most of the risks through such strict risk management and maintained a good capital adequacy ratio and profitability.

Lehman Brothers in the 2008 global financial crisis, the bankruptcy of Lehman Brothers became the turning point of the crisis. Lehman Brothers invested heavily in complex financial instruments related to subprime mortgage loans, and the risks of these instruments were not fully recognized and treated properly before the crisis. Although Lehman Brothers had a theoretically complete risk management system, there were obvious mistakes in the process of risk identification and assessment, which caused Lehman Brothers to suffer heavy losses in the financial crisis.

During the global financial crisis in 2008, Bank of Beijing suffered heavy losses due to its neglect of risk management. They relied too much on the real estate market, and when the market crashed, the value of real estate investments fell sharply, which led to a decline in the capital adequacy ratio of Bank of Beijing and faced huge liquidity risks. This case warns us that excessive reliance on a single investment field and neglect of risk management may lead to serious consequences.

The above cases show that effective risk management and avoidance strategies are crucial to commercial banks. With the help of advanced risk management tools and models, banks can effectively identify, evaluate, and control investment risks, thereby resisting potential risk shocks. However, excessive reliance on these tools and models, as well as failures in risk assessment, can lead to major failures in risk management by banks. In the 2007 financial crisis, some banks suffered huge losses due to excessive investment in subprime mortgage loans. This is an example of risk aversion failure, while other banks, through good risk management strategies, clear identification of risks in advance, and effective measures to minimize risks, were able to avoid such losses.

Therefore, when banks manage and avoid investment risks, they need to be constantly vigilant to ensure the accuracy and effectiveness of the process. Risk management is a key part of a bank's investment decisions, both domestically and internationally. Fully understanding, respecting, and managing risks, and avoiding risks through diversified investment portfolios and effective risk management tools are the key factors for banks to successfully avoid investment risks.

3.4. Risk Monitoring and Review

Even with a risk mitigation strategy in place, it is important to continuously monitor and review the changing risk dynamics. Procedures must be in place to track changes in the risk profile and audited on a regular basis. Any new risks identified during this process must be assessed and mitigated in a timely manner.

3.5. Compliance with Regulations

Compliance with regulatory requirements and guidelines is critical to risk management. Regulations such as Basel III make recommendations to the banking laws and regulations issued by the Basel Committee on Banking Supervision. Compliance with regulatory requirements reduces legal risk and also helps manage risk. Strict adherence to these norms can attract investors, thereby reducing liquidity risk.

On the other hand, failure to comply with these regulatory requirements can have serious consequences, including substantial fines, criminal charges, and loss of banking licenses. Therefore, compliance with regulatory requirements should be an integral part of the risk avoidance strategy of commercial banks.

3.6. Technological Progress and Risk Management

The latest technological trends such as big data and artificial intelligence are being used in bank risk management. Big data facilitates real-time risk assessment and enables early detection of risk indicators, thereby greatly reducing potential losses. Artificial intelligence and machine learning algorithms can learn from past data to predict future risks more accurately than traditional models. In the process of risk management in commercial banks, investment risk aversion is affected by both internal and external factors [12]. Internal factors mainly include the bank's business philosophy, risk management capabilities, technical level, and human resources. The bank's business philosophy determines its acceptance of risk; risk management capabilities affect the bank's ability to identify and control risks; technical level and human resources determine whether the bank can effectively use risk management tools. External factors mainly include regulatory policies, economic cycles, and investor behavior. Regulatory policy makers' thinking on risk management will affect the orientation of bank risk management; the economic cycle will affect the risk-return ratio of bank investment; investor behavior will affect the bank's risk management decisions through market mechanisms.

These factors will have a profound impact on the investment risk avoidance strategies of commercial banks. For example, a loose regulatory environment may cause banks to increase risk investment, while strict regulatory policies will compress the bank's risk tolerance, thus affecting the bank's investment decision [13]. In addition, fluctuations in the economic cycle will affect the flow of global capital, thereby changing the risk-return ratio of investment and affecting the investment choices of banks. The behavior of investors is also an important factor that determines the investment risk of banks, and the risk preference of investors can guide the investment of banks to a certain extent.

4. Conclusion

Synthesizing the research of this thesis, we can see the importance of investment risk avoidance strategies in commercial banks. This article analyzes various risks that commercial banks face in investment activities. The paper also discusses the process of risk management, including identification, assessment, mitigation, ongoing monitoring and review, and strict compliance with regulatory requirements. We find that flexible and adaptable risk management strategies can effectively respond to regulatory pressures and changes in the economic environment. Risk identification and assessment: To avoid investment risks in commercial banks, the first thing is to carry out effective identification and assessment of risks.

In order to avoid these risks, commercial banks have adopted a variety of strategies, and investment decisions must be based on a comprehensive and in-depth risk assessment to ensure that risks are controllable and at an acceptable level. Risk Management Strategy: An effective risk management strategy is essential for risk avoidance. This includes developing strategies for different risk types and establishing an effective risk management framework. Impact of regulatory policies: Regulatory policies have a significant impact on the risk aversion strategies of commercial banks. Different regulatory environments may cause commercial banks to adjust their risk orientation and risk management strategies. Economic environment factors: The risk aversion behavior of commercial banks is affected by the economic environment. For example, during a recession, banks may increase their risk aversion, while during an economic boom, risk aversion may be relatively relaxed. For example, in the 2008 financial crisis, banks such as Credit Suisse successfully responded to the crisis, mainly due to their effective risk management strategies and accurate risk measurement.

In conclusion, effective risk management practices can greatly enhance a bank's profitability and reputation while protecting it from severe financial losses. With the emergence of advanced

technologies such as big data, artificial intelligence, and machine learning, the way of risk management is undergoing a major transformation, thereby introducing more efficient and effective risk avoidance and mitigation methods. However, while these advances bring great potential, they also highlight the importance of human judgment in interpreting results and applying ethical standards. It is also critical for banks to keep pace with the changing regulatory environment, ensuring compliance while innovating their risk management strategies.

Future research could look at developing more sophisticated risk management models that facilitate better understanding and forecasting of risks, thereby strengthening the robustness of banking institutions. However, risk aversion is not without risk. The failure of banks such as Lehman Brothers in the crisis reminds us of that over-reliance on models and underestimation of risk can have disastrous consequences.

Based on these findings, we recommend directions for further research including:

In-depth understanding of specific risk types: An in-depth understanding of specific risk types such as credit risk, market risk, and operational risk will help commercial banks formulate more effective risk management strategies.

Enhance the ability of risk models: Current risk models still cannot fully predict and respond to all risks to some extent. We need to continuously improve risk models, enhancing their predictive power and ability to deal with complex situations.

Assess risks in the new situation: As technology changes and the regulatory environment changes, the risks faced by commercial banks will also change. For example, with the development of fintech, commercial banks may face new risk types and levels.

The application of risk management to other types of investments, such as FinTech and Environmental, Social and Governance (ESG) investments. At the same time, research should pay more attention to the practical challenges in risk management practice, such as the quality and availability of data, and the adaptive challenges in the new regulatory environment. Only by summarizing past experience and lessons, combining with real challenges, and continuously improving risk management capabilities, can banks achieve a balance between risk and return in investment activities, and ultimately achieve sustainable development.

In conclusion, the challenge is how to successfully adapt and integrate these new technologies and regulatory frameworks into existing risk management systems to ensure the future safety and prosperity of the banking industry.

References

- [1] Wang Dongmei, Huang Shilong, Liu Zhigang. Research on evaluation and control of investment risks of commercial banks. *Financial Development Research*, 2016, (2): 78-81.
- [2] Zhang Bing. Research on investment risk management model of commercial banks. *Modern Finance and Economics*, 2018, (9): 88-90.
- [3] Wang Yajing, Jia Xuejun Research on Risk Management and Investment Portfolio Strategy of Commercial Banks: An Empirical Analysis Based on the Chinese Stock Market. *Journal of Management Engineering*, 2007, 21(1): 93-97.
- [4] Zhu Limin. Identification and prevention of investment risks in commercial banks. *Economic Management*, 2017, (1): 83-87.
- [5] Zhang Wanli, Luo Jing Regulatory Policy, Bank Behavior, and Bank Risk: Evidence from Chinese Commercial Banks. *Economic research*, 2014, 49(2): 4-17.
- [6] Berger, A.N., Herring, R.J., & Szegő, G.P. (1995). The role of capital in financial institutions. *Journal of Banking & Finance*, 19(3-4), 393-430.
- [7] Lepetit, L., Nys, E., Rous, P., & Tarazi, A. (2008). Bank income structure and risk: An empirical analysis of European banks. *Journal of Banking & Finance*, 32(8), 1452-1467.
- [8] Allen, F., & Gale, D. (2004). Competition and financial stability. *Journal of Money, Credit and Banking*, 36(3), 453-480.

- [9] Zhang Yu, Yang Guo. Research on the construction and methodology of investment risk evaluation index system of commercial banks. *China Market*, 2017, (4): 72-75.
- [10] Zhao Xiaoying. Research on investment risks of commercial banks and their countermeasures. *Financial Theory and Practice*, 2016, (3): 82-85.
- [11] Allen L, Bali H. Risk management and analysis: Measuring and evaluating investment risk. John Wiley & Sons, 2018.
- [12] Cornett M.M, Hsu J, Li L. Internal capital markets and the credit market access of global financial institutions: Evidence from the financial crisis. *Journal of Financial Intermediation*, 2011, 20(2): 178-196.
- [13] Crockett A. Structural changes in banking after the crisis. *BIS Quarterly Review*, 2008, 71-82.