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## THE EFFECT OF CREDIT RISK ON THE PROFITABILITY OF VIETNAMESE COMMERCIAL BANKS

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### Abstract

*Credit risk management has become a critical concern for commercial banks in emerging economies, particularly in Vietnam, where the banking sector plays a central role in financial intermediation and economic stability. This study explores the effect of credit risk on the profitability of Vietnamese commercial banks through a qualitative and descriptive analysis based on secondary data from official reports of the State Bank of Vietnam (SBV), World Bank statistics, and financial statements of leading banks during the period 2015–2023. The analysis reveals that although Vietnam's banking system has improved its credit risk management frameworks, profitability remains highly sensitive to changes in credit quality. The ratio of non-performing loans (NPLs) and the level of loan loss provisions have shown a close association with fluctuations in bank profits. In years when credit risk indicators increased particularly during the COVID-19 pandemic, bank profitability indicators such as Return on Assets (ROA) and Return on Equity (ROE) tended to decline. Despite these challenges, the adoption of digital technologies, stronger regulatory oversight, and gradual compliance with Basel II standards have contributed to more effective credit monitoring and risk mitigation in recent years. The study concludes that managing credit risk is essential for maintaining the stability and long-term profitability of Vietnamese commercial banks. A strong credit governance framework, diversification of loan portfolios, and the integration of technology into risk assessment are crucial for improving financial performance. The findings also provide practical implications for policymakers and financial managers in enhancing the resilience of the banking sector amid increasing economic uncertainty.*

**Keywords:** Credit risk; profitability; commercial banks; risk management; Basel II.

## 1. Introduction

In the modern banking environment, credit risk remains one of the most significant challenges affecting the stability and profitability of financial institutions. Credit risk refers to the potential loss arising when borrowers fail to meet their contractual obligations, thereby reducing a bank's expected income and capital reserves (Sinkey, 2002). Globally, managing credit risk has become a central focus of banking regulation, particularly under the Basel Accords, which emphasize the need for strong risk governance and adequate capital buffers (BCBS, 2019). Effective credit risk management is therefore essential not only for safeguarding the solvency of banks but also for ensuring the resilience of the broader financial system.

The relationship between credit risk and bank profitability has attracted significant attention in both academic research and policy discussions. Banking profitability commonly measured through Return on Assets (ROA) and Return on Equity (ROE) reflects how effectively a bank transforms its resources into earnings (Athanasoglou et al., 2008). However, higher credit exposure or rising non-performing loans (NPLs) can undermine profitability by increasing loan loss provisions and reducing interest income (Ahmad & Ariff, 2007). According to the risk–return trade-off theory, taking on higher risk may generate greater returns only when managed effectively; otherwise, excessive exposure to poor-quality assets can erode profitability and stability (Rose & Hudgins, 2013). Consequently, the success of commercial banks largely depends on their ability to balance risk-taking and profit generation through robust credit risk management systems.

In the case of Vietnam, the issue of credit risk has gained increasing importance in recent years as the country's banking sector undergoes rapid modernization and digital transformation. The Vietnamese financial system is predominantly bank-based, with commercial banks accounting for nearly 65% of total financial assets (World Bank, 2022). During the past decade, Vietnam's economic growth and financial deepening have been accompanied by rising credit expansion, especially in sectors such as real estate and small and medium-sized enterprises (SMEs), which are often more vulnerable to default risk. According to the State Bank of Vietnam (SBV, 2023), the system-wide NPL ratio fluctuated between 1.8% and 3.5% during 2015–2023, with temporary spikes during the COVID-19 pandemic when credit quality deteriorated. Although the implementation of Basel II standards and digital risk management systems has improved transparency and oversight, many Vietnamese commercial banks continue to face difficulties in balancing profitability with prudent lending practices (Deloitte, 2022).

Several studies have examined the relationship between credit risk and profitability in both developed and developing economies. International evidence consistently suggests that high levels of NPLs are associated with lower profitability (Alper & Anbar, 2011; Kolapo et al., 2012). In Vietnam, researchers such as Nguyen and Dang (2021) and Pham and Le (2022) found that credit risk has a statistically negative impact on bank performance, primarily through reduced ROA and ROE. However, most existing studies rely on quantitative econometric models, focusing primarily on numerical relationships between risk indicators and financial outcomes. There is still limited understanding of the qualitative dimensions including institutional frameworks, policy reforms, and managerial practices that influence how credit risk affects profitability in Vietnam's specific banking context.

Therefore, this study adopts a qualitative and descriptive approach to explore the relationship between credit risk and profitability among Vietnamese commercial banks. Drawing upon secondary data from the SBV, World Bank, and banks' annual reports from 2015 to 2023, the study seeks to describe and interpret trends in NPL ratios, loan loss provisions, and profitability indicators. By synthesizing regulatory developments, management practices, and industry statistics, this paper provides a comprehensive picture of how credit risk dynamics shape financial performance in Vietnam's banking sector. The study aims to contribute to the growing literature by offering practical insights for policymakers and financial managers on balancing risk and return, strengthening credit governance, and ensuring the long-term sustainability of the Vietnamese banking industry.

## 2. Literature review

Credit risk represents the possibility that a borrower will fail to meet contractual obligations, leading to financial losses for the bank (Sinkey, 2002). It is the most significant source of risk faced by commercial banks, as lending activities account for the largest proportion of bank assets and income (Kolapo et al., 2012). According to Basel Committee on Banking Supervision (BCBS, 2019), credit risk management involves identifying, measuring, monitoring, and controlling exposures to minimize potential losses. The relationship between credit risk and profitability is grounded in risk–return trade-off theory. Banks generate profits primarily from lending, but excessive risk-taking can erode financial stability and profitability if credit defaults rise (Rose & Hudgins, 2013). Similarly, financial intermediation theory suggests that efficient allocation of credit improves profitability, while poor screening and monitoring increase non-performing loans (NPLs) and reduce returns (Levine, 2005). Hence, managing credit risk effectively is vital for sustaining profitability and ensuring the long-term soundness of banking institutions. Profitability in banking is commonly measured through Return on Assets (ROA) and Return on Equity (ROE). These indicators reflect how efficiently a bank utilizes its assets and equity to generate profit. When credit risk increases evidenced by higher NPL ratios or provisioning expenses profitability tends to decline (Athanasoglou et al., 2008). Therefore, the stability of a bank's financial performance is inherently linked to its ability to manage and mitigate credit risk.

The relationship between credit risk and profitability has been a central topic in banking research. Numerous studies affirm that rising credit risk negatively affects profitability, as higher non-performing loans reduce income and increase provisioning costs. Kargi (2011) found that credit risk, measured by NPLs and loan loss provisions, had a significant negative relationship with ROA and ROE in Nigerian banks. Similarly, Ahmad and Ariff (2007) concluded that credit risk is a major determinant of bank performance in emerging economies, where risk management systems are less developed. On the other hand, some studies suggest that moderate levels of risk-taking may enhance profitability when managed effectively. Banks that adopt robust risk assessment frameworks and diversify loan portfolios can achieve higher returns without compromising stability (Chen & Pan, 2012). Therefore, the relationship between credit risk and profitability is not strictly linear it depends on the quality of risk governance, the macroeconomic environment, and the regulatory context. The implementation of Basel II and Basel III frameworks has further emphasized the importance of effective credit risk management. These frameworks require banks to maintain

adequate capital buffers and enhance risk assessment methodologies. In emerging markets like Vietnam, the gradual adoption of Basel II standards has been an important step in aligning risk management practices with international norms, though challenges remain in implementation and compliance (Deloitte, 2022).

International studies consistently highlight the strong connection between credit risk and bank profitability. Alper and Anbar (2011) found that in Turkey, higher NPL ratios were associated with lower profitability, indicating that poor asset quality reduces earnings. In Europe, Louzis et al. (2012) identified macroeconomic conditions such as GDP growth and unemployment as major determinants of credit risk, which in turn affect bank performance. In Africa, Kolapo et al. (2012) and Adeola and Ikpesu (2017) observed similar patterns, noting that high levels of bad loans diminish banks' profit margins and threaten financial stability. Conversely, Boudriga et al. (2009) emphasized that strong governance and credit screening processes mitigate the negative effects of credit risk. Studies from Asia, such as those by Misman (2012) in Malaysia and Zhang et al. (2019) in China, showed that diversification of loan portfolios and the adoption of data-driven risk models can enhance profitability despite rising credit exposure. Overall, the global literature demonstrates that while credit risk is an unavoidable aspect of banking, its impact on profitability can be controlled through sound regulatory frameworks, technological innovation, and prudent risk management practices.

In Vietnam, credit risk remains a major challenge for the banking sector despite significant modernization over the past decade. According to the State Bank of Vietnam (SBV, 2023), the average non-performing loan (NPL) ratio of the system has fluctuated between 1.8% and 3.5% over the 2015–2023 period, with occasional spikes during periods of economic stress, such as the COVID-19 pandemic. The banking system is still dominated by lending to sectors with high risk exposure, including real estate and small and medium-sized enterprises (SMEs), which are sensitive to macroeconomic volatility (World Bank, 2022). Several Vietnamese studies have explored this relationship. Nguyen and Dang (2021) found that credit risk had a negative effect on profitability indicators of Vietnamese commercial banks, emphasizing that higher NPLs reduce both ROA and ROE. Tran (2020) argued that inadequate credit assessment and limited data on borrower creditworthiness contribute to rising default rates. Meanwhile, Pham and Le (2022) noted that the adoption of Basel II standards has improved credit risk governance but that implementation remains uneven across institutions, especially smaller banks. Despite progress in digital transformation and risk analytics, many Vietnamese banks still rely heavily on traditional lending models and collateral-based lending, which limits the effectiveness of risk management. The shift toward fintech-driven credit assessment and AI-based credit scoring has been promising but requires stronger data infrastructure and regulatory oversight (Deloitte, 2022). Thus, while existing studies confirm the negative influence of credit risk on profitability, there remains a gap in understanding the qualitative dimensions of how risk management practices, policy reforms, and digital transformation interact to affect profitability. This study addresses that gap by providing a qualitative synthesis of recent developments, trends, and policy implications in Vietnam's banking sector.

### 3. Current situation of credit risk in Vietnamese Commercial Banks

Vietnam's banking sector plays a pivotal role in financing the country's economic growth, accounting for nearly 65% of total financial system assets (World Bank, 2022). Over the past decade, credit expansion has been one of the key drivers of economic development. However, this rapid credit growth has also heightened exposure to credit risk. The State Bank of Vietnam (SBV), as the central regulatory authority, has implemented multiple reforms to strengthen the banking system, including restructuring weak institutions, tightening lending standards, and gradually implementing Basel II standards (SBV, 2023). Despite these efforts, credit risk continues to be a major challenge affecting the stability and profitability of commercial banks. Vietnam's banking system consists of four major state-owned commercial banks (Vietcombank, VietinBank, BIDV, Agribank) and numerous joint-stock and foreign banks. These institutions collectively dominate the credit market, yet their risk management capacities vary significantly. Larger banks have adopted advanced credit assessment systems and digital risk models, while smaller institutions still rely heavily on traditional collateral-based lending. This disparity contributes to uneven performance in credit quality across the sector (Deloitte, 2022).

From 2015 to 2023, the Vietnamese banking sector witnessed robust credit growth, averaging 13–15% annually (SBV, 2023). While this expansion supported economic activity, it also led to rising credit exposure in sectors with elevated default risk, particularly real estate, construction, and small and medium-sized enterprises (SMEs). The outbreak of the COVID-19 pandemic in 2020 further intensified credit risk as many businesses experienced liquidity shortages and delayed loan repayments. According to the State Bank of Vietnam (2023), the system-wide non-performing loan (NPL) ratio fluctuated between 1.8% and 3.5% during the 2015–2023 period. During 2020–2021, when the pandemic disrupted production and trade, the NPL ratio temporarily spiked to nearly 3.8%, prompting banks to increase loan loss provisions significantly. As economic recovery took hold in 2022–2023, the NPL ratio gradually declined to around 2.9%, supported by government policies on debt restructuring and interest rate assistance. However, according to the World Bank (2023), the true level of impaired loans including restructured and potential bad debts could be higher, estimated at 5–6% when off-balance-sheet items are included.

Despite moderate improvement in asset quality, the concentration of credit in a few high-risk sectors remains a systemic concern. For example, real estate loans account for approximately 21–25% of total bank lending, while loans to SMEs represent another 18–20%, both of which are susceptible to market volatility and limited credit transparency (Vietnam Banks Association, 2023). These structural imbalances underline the importance of diversifying loan portfolios and improving borrower assessment capabilities. The profitability of Vietnamese commercial banks, measured by Return on Assets (ROA) and Return on Equity (ROE), has shown considerable fluctuations in line with credit risk trends. According to SBV (2023), the average ROA of the banking sector ranged from 0.6% to 1.2%, while ROE varied between 9% and 15% during 2015–2023. During periods of increased credit risk particularly in 2016 and 2020, both profitability indicators declined sharply as banks had to increase provisions for bad loans.



For instance, during the pandemic years, loan loss provisions rose by nearly 40% across the system, substantially eroding profits despite stable interest margins (Nguyen & Dang, 2021). Even though several leading banks such as Vietcombank and Techcombank managed to maintain solid profitability due to diversified portfolios and strong retail banking segments, smaller institutions with weaker credit controls reported declining returns. This reflects a negative correlation between credit risk and profitability, consistent with the findings of international studies (Kolapo et al., 2012; Ahmad & Ariff, 2007). Moreover, while digital transformation and improved credit scoring tools have contributed to better risk monitoring, many Vietnamese banks still face limitations in credit data availability, particularly for SMEs and informal borrowers. The Credit Information Center (CIC) of Vietnam remains underdeveloped compared to regional peers, limiting the ability of banks to accurately assess creditworthiness and price risk effectively (World Bank, 2022). This information asymmetry continues to elevate the cost of credit risk and hinder profitability.

To mitigate rising credit risk, the Vietnamese government and SBV have implemented a range of policy measures. The Basel II implementation roadmap, launched in 2020, requires banks to strengthen capital adequacy ratios, improve risk assessment models, and enhance corporate governance (SBV, 2021). By the end of 2022, nearly 90% of Vietnamese commercial banks had met basic Basel II standards, marking significant progress in regulatory alignment (Deloitte, 2022). Additionally, the SBV introduced Circular No. 11/2021/TT-NHNN and Circular No. 02/2023/TT-NHNN, providing guidelines for debt restructuring, loan classification, and provisioning during the pandemic recovery phase. These regulations allowed banks to temporarily defer bad debt recognition, helping maintain reported profitability and system stability. However, some experts argue that these measures may have masked underlying asset quality risks, which could resurface as economic conditions tighten (World Bank, 2023). At the same time, the expansion of digital risk management tools has enhanced early warning systems and loan monitoring. Leading banks such as Techcombank, MB Bank, and VPBank have integrated data analytics and artificial intelligence (AI) to evaluate borrower behavior and credit risk in real-time (Pham & Le, 2022). Despite these innovations, the uneven adoption of technology among smaller banks poses ongoing challenges for sector-wide credit risk management.

#### 4. Conclusion

This study has explored the qualitative relationship between credit risk and the profitability of Vietnamese commercial banks over the period 2015–2023. Using secondary data from the State Bank of Vietnam (SBV), World Bank, and financial reports of major banks, the analysis shows that credit risk remains the most significant factor influencing the financial performance and stability of Vietnam's banking sector. While the system has experienced strong growth in both assets and lending activities, the expansion of credit has also exposed banks to higher default risks, particularly in sectors such as real estate and small and medium-sized enterprises (SMEs).

The findings reveal that periods of rising non-performing loans (NPLs) and loan loss provisions correspond closely with declines in profitability indicators such as Return on Assets (ROA) and Return on Equity (ROE). This relationship confirms the negative link between credit risk and profitability, consistent with global

and domestic research (Ahmad & Ariff, 2007; Kolapo et al., 2012; Nguyen & Dang, 2021). The COVID-19 pandemic further magnified these vulnerabilities, demonstrating the sensitivity of the Vietnamese banking system to macroeconomic shocks. Although the implementation of Basel II standards and digital transformation initiatives has improved risk management practices, these measures have not yet fully eliminated systemic weaknesses.

Nevertheless, progress is evident. The adoption of data-driven credit scoring models, stricter regulatory supervision, and the restructuring of weak banks have gradually strengthened the industry's risk governance framework. Major commercial banks such as Vietcombank, BIDV, and Techcombank have made notable improvements in maintaining asset quality and profitability even amid economic turbulence. However, smaller institutions continue to face challenges in adapting to advanced risk management practices and maintaining sufficient capital buffers.

Overall, this study concludes that the profitability and long-term sustainability of Vietnamese commercial banks are closely tied to the effectiveness of their credit risk management. Enhancing credit assessment, portfolio diversification, and data transparency are key to mitigating risk and improving operational efficiency. These findings emphasize the importance of aligning risk management policies with Vietnam's broader goals of financial stability and sustainable economic development.

Given the persistent challenges in managing credit risk, several policy implications can be derived to strengthen both the profitability and resilience of Vietnamese commercial banks. First, policymakers should continue to enhance the regulatory and supervisory framework governing credit risk. The State Bank of Vietnam should further align its standards with Basel III principles, ensuring stricter capital adequacy, liquidity coverage, and leverage ratios. Improved regulatory oversight will help detect early signs of credit deterioration and promote transparency in loan classification and provisioning. Second, it is essential to strengthen the credit information infrastructure. Expanding the coverage and quality of the Credit Information Center (CIC) and encouraging data sharing among financial institutions will improve credit assessments and reduce information asymmetry. The development of a unified national credit database, integrating data from banks, fintech platforms, and tax authorities, would support more accurate risk evaluation and pricing. Third, the government and banks should promote digital transformation and technology adoption in credit risk management. Artificial intelligence (AI), big data analytics, and machine learning can significantly enhance credit scoring accuracy, early warning systems, and loan monitoring. However, digitalization must be accompanied by robust cybersecurity frameworks and data protection regulations to ensure consumer trust and financial stability. Fourth, financial institutions need to diversify their loan portfolios to minimize sectoral concentration risks. Excessive exposure to real estate or certain high-risk industries increases vulnerability to market fluctuations. Banks should expand lending to productive sectors such as manufacturing, renewable energy, and agriculture, which contribute to long-term economic growth. Fifth, enhancing human resource capacity in credit risk management is crucial. Continuous training and certification programs for risk officers, combined with the integration of international best practices, will strengthen the professional competence of bank staff. The SBV could collaborate with universities and international partners to develop specialized programs in financial risk analytics and governance. Sixth,

improving financial disclosure and transparency is vital. Banks should adopt more standardized and timely reporting of NPL ratios, provisioning levels, and risk-weighted assets. Enhanced transparency not only strengthens investor confidence but also allows regulators and market participants to assess systemic vulnerabilities more accurately. Finally, macroprudential policies should aim to balance financial stability and economic growth. While stimulating credit to support recovery and investment is important, excessive credit expansion must be managed carefully to prevent future asset bubbles and credit quality deterioration. Coordinated policy actions between the SBV, Ministry of Finance, and other financial authorities are necessary to ensure consistency and sustainability in the banking sector's development.

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