


Digital Finance and Commercial Banks' Risk

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ABSTRACT

China's digital financial growth has advanced rapidly, and the banking sector, which serves as the core of the real economy, is concerned about its capacity to resist the impacts of digital finance. The paper analyzes the impact of digital financing on commercial banking risk-taking via balance panel data from 2013 to 2022 from 160 Chinese banks. The results prove that the impact of digital finance on commercial banks' risk-taking and finds that firstly, in terms of the overall effect, digital finance has a dampening effect on commercial banks' risk-taking; in terms of the structural effect, the risk-dampening effect of the breadth of coverage is the strongest and the breadth of coverage and the depth of use play a significant role in the dampening of commercial banks' risk-taking.

KEYWORDS

Bank Competition, China, Commercial Banks, Digital Finance, Risk-Taking

INTRODUCTION

The origin of digital finance can be traced back to the end of the 20th century, and the introduction of PayPal in the United States in 1998 was the beginning of Internet finance. With the development of Internet finance theory, P2P lending platforms also emerged after 2005.

Internet finance mainly refers to Internet enterprises and traditional financial institutions that carry out financial business based on Internet technology (Dong et al, 2020). Financial Stability Board proposed the concept of financial technology (Fin-Tech) for the first time at the international level, which means "the technology-induced financial market, financial institutions and the way of providing financial services." (Anifa et al., 2022; Mansour, 2023). Internet finance covers a narrower content. It focuses on the scene dimension, while fintech emphasizes the impetus brought to finance by the update of science and technology and focuses on the technical dimension. The concept of digital finance is more neutral and covers a broader scope (Gomber et al., 2017; Bayram et al., 2022).

As an emerging business model, digital finance is bound to impact the stability of commercial banks' operation and development (Khattak et al, 2023). At the same time, digital technology has also brought about new risk exposures, and the problem of risk contagion has increased (Luo, 2022). The downward trend of China's economy is not optimistic; the probability of corporate defaults has increased, and financial risks have accumulated. In this context, it is essential to clarify whether digital

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finance increases or reduces commercial banks' risk-taking, and it is of great significance to enhance the financial risk prevention ability of commercial banks, improve the efficiency of commercial banks' risk management, and promote the smooth operation of the financial system under the new wave.

The Internet environment developed earlier in foreign countries than in China, so foreign research on the relationship between digital finance and commercial banks started earlier (Lee et al., 2023). In recent years, with the rapid development of digital finance in China, studies on digital finance and commercial banks' risk-taking have also emerged, and through the literature, the main points of view are as follows:

First, digital finance promotes risk-taking by commercial banks by eroding the value of their franchises and exacerbating risk contagion (Ajili & Mansour, 2024). With its advantages in customer acquisition, channel operation, information extraction, and capital supervision, digital finance has introduced the core deposit and lending business of commercial banks, affected the monopoly of commercial banks in the financial industry, reduced their franchise value and profitability (Dong et al., 2020; Theiri, & Hadoussa, 2024), and its reduced profitability has increased the risk of banks' operation.

In addition, in the era of digital finance, the introduction of digital technologies such as cloud computing and big data technology by commercial banks will expose them to the data risks of the Internet industry (Cheng et al, 2022; Ha & Nguyen, 2022; Liang et al., 2023; Quach et al., 2022), and immature technology, consumer privacy protection, financial fraud, and liquidity risk contagion problems may increase the risk-taking of commercial banks (Boamah et al., 2023). According to Luo (2022), the risk of financial innovation products has become more hidden, and the risks of technological attributes such as data, network, privacy, and third-party technological dependence are all potential factors for risk contagion, creating a market risk that is more penetrative and contagious.

Second, digital finance inhibits commercial bank risk-taking through technological spillovers. Commercial banks have absorbed new digital finance technologies through the demonstration effect. Khan (2022) found that Internet finance changes commercial bank risk management and operational efficiency, effectively improving it, which makes up for its unfavorable impact on profitability and risk, reduces commercial banks' bankruptcy risk, and improves bank stability. Li et al. (2022) pointed out that the rapid development of digital technology and the digital economy effectively solves the problem of information asymmetry between banks and enterprises and optimizes the structure of the risk-taking behavior of banks in China.

Nasiri et al. (2022) believe that in the late stage of development, the bank's development and use of digital technology tends to be mature, its banking service system is constantly improving and risk control ability is constantly improving, and its risk-taking will continue to decline. It can be found through the review that existing research on the relationship between digital finance and commercial bank risk-taking has various views among scholars (Nguyen & Dang, 2022).

There is still space for research to make more accurate judgments based on the latest indicators of digital finance and the specific situation of Chinese commercial banks. The existing literature has rarely examined the moderating mechanism of the relationship between the two in terms of the external environment. Given this, this paper seeks to make contributions in the following aspects: first, using Peking University's Digital Inclusive Finance Index as a proxy variable for digital finance, we examine its impact on commercial banks in terms of the "overall effect" of digital finance and the "structural effect" of the three dimensions under it, namely, the breadth of coverage, the depth of use, and the degree of digital services. "The second is to examine its impact on commercial banks' risk-taking from the bank size and region perspective. Second, the heterogeneity of digital finance on commercial bank risk-taking is examined from bank size and regional financial regulation perspectives. Third, to explore the mechanism of the external environment on the relationship between the two, this paper examines the moderating effect of the degree of competition in the banking industry and economic policy uncertainty on the relationship between digital finance and commercial bank risk-taking, respectively.

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