Mitigating the impact of macroeconomic uncertainty: The role of fintech in enhancing commercial banks' risk-taking

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When macroeconomic uncertainty rises, commercial banks become hesitant to lend due to their desire to avoid risks and reduce proactive risk-taking. This hampers the ability of financial intermediaries to serve the real economy, as enterprises are also constrained in their investment decisions during times of uncertainty.

Developing countries like China typically experience high levels of macroeconomic uncertainty. Finding ways to alleviate the negative impact of uncertainty on commercial banks' risk-taking is crucial for enhancing financial integration and supporting the real economy.

In China, the General Office of the China Banking and Insurance Regulatory Commission issued "Guiding Opinions on the Digital Transformation of the Banking and Insurance Industry" in 2022, emphasizing the importance of digital transformation and fintech services in improving the quality of financial services for the real economy. Consequently, Chinese commercial banks have been actively promoting digital transformation and fintech services based on big data and new algorithms.

In light of these circumstances, a team of Chinese researchers conducted a study using annual data banks from 2010 to 2019 of 145 commercial banks. They used a panel data fixed-effect model to examine the influence of financial technology on mitigating the adverse effects of macroeconomic uncertainty on commercial banks' proactive risk-taking.

"We also explored the heterogeneity across different types of commercial banks, together with the marginal impact of fintech development on commercial banks with different levels of active risk-taking through panel quantile regression," shared Zhuo Huang, corresponding author of the study.

The team found that the development of financial technology effectively mitigates the negative impact of macroeconomic uncertainty on the proactive risk-taking behavior of commercial banks. This effect remains significant even after accounting for various bank and macro-level variables. The robustness of the main finding holds regardless of alternative variable construction methods or consideration of endogeneity issues.

Additionally, it was revealed that as the level of proactive risk-taking by commercial banks increases, the marginal impact of financial technology diminishes. This indicates that the development of financial technology does not encourage commercial banks to take excessive risks.

"The impact of financial technology on mitigating macroeconomic uncertainty varies across different types of commercial banks. Commercial banks with high capital adequacy ratios and large state-owned banks exhibit a weaker response to the mitigating effect of financial technology," added Huang.

This study, published in the journal *China Economic Quarterly International*, makes three primary contributions. Firstly, it compares the marginal effects of financial technology development on commercial banks with different levels of proactive risk-taking, demonstrating that the mitigation effect decreases as risk-taking levels rise. This emphasizes that financial technology development does not promote excessive risk-taking by commercial banks.

Secondly, the paper employs accurately matched data on digital transformation for each commercial bank, providing more direct and convincing evidence on the level of financial technology development.

Lastly, the study explores methods to alleviate the inhibitory effects of macroeconomic uncertainty on commercial banks' proactive risk-taking, offering empirical support and practical insights for promoting financial intermediation and enhancing banks' ability to serve the real economy.

More information: Fang Liang et al, Financial technology, macroeconomic uncertainty, and commercial banks' proactive risk-taking in China, *China Economic Quarterly International* (2023). DOI: 10.1016/j.ceqi.2023.04.001

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