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The Impact of Monetary Policy Shocks on Financial Sector Risk Exposure

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Abstract

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This study examines how monetary policy shocks influence financial sector risk exposure through a systematic literature review of empirical research. The review synthesizes evidence on how changes in policy rates and central bank balance sheet policies affect bank leverage, asset quality, funding structures, and financial stability indicators in advanced and emerging economies. The findings show that accommodative monetary policy often increases credit, market, and insolvency risk, particularly in competitive banking systems and environments with weak macroprudential regulation, while tighter policy can curb risk taking but temporarily heighten liquidity and market risk. The results also indicate that the impact of monetary policy shocks is context dependent, shaped by market structure, capitalization, policy uncertainty, and institutional frameworks. Several studies identify a transmission channel through shifts in investors' risk appetite and cross border capital flows, which link monetary policy surprises to asset price volatility and risk taking by banks and non bank intermediaries. Overall, the review underscores the need to coordinate monetary and macroprudential policies to contain excessive risk while preserving monetary transmission.

1. Introduction

Monetary policy has re-emerged as a key driver of financial sector risk in the wake of the pandemic, the surge in global inflation, and the subsequent rapid tightening cycles in both advanced and emerging economies. A growing body of work shows that changes in policy rates and balance-sheet policies do not only affect output and inflation, but also reshape banks' funding costs, lending standards, market valuations, and ultimately their risk exposure (Faia & Karau, 2021; Koenig et al., 2024). Recent global assessments warn that abrupt monetary policy shocks can interact with elevated leverage, duration risk, and liquidity mismatches to amplify vulnerabilities in banks and non bank financial intermediaries.

Theoretically, these developments are often analysed through the risk-taking channel of monetary policy, which emphasizes how prolonged low interest rates and compressed risk premia encourage financial institutions to rebalance portfolios toward higher yield, higher risk assets (Andrieş & Pleşcău, 2020). Empirical studies for Europe, emerging economies, and cross country samples document that accommodative monetary policy is associated with higher non-performing loans, greater leverage, and weaker solvency indicators, while tighter policy tends to reduce risk taking but may raise short-term funding and market risk (Dang, 2020; Wu et al., 2022). At the same time, general equilibrium models and micro data show that banks are endogenously exposed to monetary policy because their business model relies on maturity transformation and fixed rate assets funded by short term liabilities, so unexpected policy shifts translate into valuation and income shocks on their balance sheets (Di Tella & Kurlat, 2021).

Recent research has moved beyond average effects to examine how the impact of monetary policy shocks on risk exposure varies across institutional characteristics, regulatory environments, and states of the economy. Cross country evidence suggests that the risk-taking channel is weaker when macroeconomic and policy uncertainty are high, but stronger in environments with intense search for yield incentives and less stringent capital or liquidity regulation (Wu et al., 2022; Koenig et al., 2024). Country specific studies for emerging markets such as Vietnam and Indonesia similarly find that identified monetary policy shocks alter banks' credit, market, and insolvency risk measures, with the magnitude of the effect depending on capitalization, funding structure, and the stance of macroprudential tools (Anwar, 2024; Nguyen, 2024). Newer contributions also highlight that transmission increasingly operates through market-based channels and cross border spillovers, as global monetary policy shocks affect domestic bank risk and non-bank intermediaries via capital flows, asset prices, and exchange rate movements (Koenig et al., 2024).

Despite this rapid progress, several gaps remain. Much of the literature focuses on bank risk-taking behaviour or solvency ratios, while comparatively less attention is given to a broad concept of financial sector risk exposure that integrates credit, market, liquidity, and systemic dimensions across both banks and non-banks. Furthermore, many studies analyse changes in the monetary policy stance, rather than exogenous monetary policy shocks identified through structural or high frequency approaches, which are crucial for causal inference. This study seeks to address these gaps by systematically synthesizing and comparing recent empirical

evidence on how unexpected monetary policy innovations are transmitted to different segments of the financial sector under varying regulatory and macro-financial conditions. By doing so, the study seeks to clarify when monetary policy shocks primarily mitigate risk, when they raise fragility, and how macroprudential and supervisory frameworks can be designed to contain adverse risk-taking responses while preserving effective monetary transmission.

2. Literature Review

Monetary policy and financial sector risk have been increasingly analysed through the lens of financial stability and bank risk-taking since the pandemic and the subsequent tightening cycle. Using a large sample of emerging markets, Hussain et al. (2021) show that the effect of monetary policy on bank risk is conditional on market structure: in more competitive banking systems, policy rate cuts are more likely to be associated with higher risk taking, while in concentrated markets the response is weaker. At the country level, Nguyen et al. (2022) find that in Vietnam, stronger transmission of interest rate and bank lending channels is associated with both higher profitability and higher credit risk, and that the COVID-19 crisis amplifies the sensitivity of bank risk measures to monetary policy shocks. Complementing these results from a systemic perspective, Duan et al. (2022) document that increases in economic policy uncertainty raise bank systemic risk via leverage and risk taking, indicating that the risk impact of monetary policy shocks is shaped by the broader policy environment.

A growing strand of work explicitly embeds financial stability indicators into monetary policy analysis. For the Gulf Cooperation Council countries, Elsayed et al. (2023) construct a composite financial stability index and estimate a reaction function showing that central banks adjust policy rates in response to financial vulnerabilities, suggesting bidirectional feedback between monetary policy and financial stability. Similar evidence for Indonesia by Hudaya and Firmansyah (2023) indicates that higher policy interest rates are, on average, associated with improvements in a financial stability index, implying that tighter monetary conditions can mitigate risk-taking when accompanied by sound macroprudential settings.

Recent studies also deepen the understanding of the risk-taking channel itself. Bauer et al. (2023) use high frequency data around Federal Open Market Committee announcements to construct a synthetic risk appetite index and show that unexpected monetary easing leads to persistent increases in risk indicators across equity, credit, fixed income, and foreign exchange markets, confirming that monetary policy shocks operate partly through investors' risk appetite rather than only through discount rate effects. In an emerging market context, Passos et al. (2024) provide evidence that lower domestic and global interest rates increase banks' portfolio risk through the risk-taking channel, with the effect being stronger around crisis episodes and for banks with specific balance-sheet characteristics. Taken together, these contributions suggest that monetary policy shocks interact with competition, uncertainty, institutional frameworks, and global financial conditions to shape credit, market, and systemic risk, motivating a comprehensive synthesis of

how such shocks affect financial sector risk exposure across different jurisdictions and institutional settings.

3. Methods

The study employs a systematic literature review to synthesize existing empirical evidence on how monetary policy shocks affect financial sector risk exposure. A structured search strategy was implemented across major academic databases such as Scopus, Web of Science, ScienceDirect, and Google Scholar using combinations of keywords including "monetary policy shocks," "risk-taking channel," "bank risk," "financial stability," and "financial sector risk exposure." Only peer-reviewed journal articles written in English and providing empirical evidence on the relationship between monetary policy and credit, market, liquidity, or systemic risk in the financial sector were included, while purely theoretical papers, conference proceedings, non-financial sector studies, and non-empirical commentaries were excluded.

The screening process was conducted in two stages title and abstract screening followed by full-text assessment by at least two reviewers, with disagreements resolved through discussion and, where necessary, consultation with a third reviewer. For each eligible study, a standardized data extraction template captured information on country or region, type of financial institution, identification strategy for monetary policy shocks, risk indicators employed, econometric methods, and key findings. The quality of the included studies was assessed using predefined criteria related to research design, transparency of

methodology, and robustness checks. Given the heterogeneity of risk measures, institutional settings, and empirical approaches, the evidence was synthesized using a narrative and thematic approach, supported by comparative tables to highlight patterns and divergences across jurisdictions, instruments, and risk dimensions.

4. Results and Discussion

The systematic review indicates a broad convergence that monetary policy shocks are an important determinant of financial sector risk exposure, not only through traditional lending and funding channels but also via broader financial stability dynamics. Across diverse institutional settings, studies consistently find that changes in policy rates and balance-sheet policies translate into measurable shifts in bank risk indicators, such as leverage, non-performing loans, and insolvency risk, supporting the notion that monetary policy is tightly intertwined with systemic bank risk (Faia & Karau, 2021; Koenig et al., 2024). Evidence from both advanced and emerging economies shows that monetary easing tends to encourage greater risk taking, while tightening episodes generally dampen risk but can temporarily raise funding and market risk, especially for institutions with significant maturity transformation.

A key result of the literature is that the impact of monetary policy on risk is highly heterogeneous and context-dependent. Hussain et al. (2021) demonstrate that in more competitive banking systems, policy rate cuts are more strongly associated with higher bank risk-taking, whereas in concentrated markets the transmission is weaker, highlighting the mediating role of market structure. At the micro level,

Nguyen et al. (2022) show that in Vietnam stronger transmission of interest rate and bank lending channels is associated with higher profitability but also with higher credit risk, particularly during the COVID-19 crisis. Complementary evidence from emerging markets further suggests that lower domestic and global interest rates increase banks' portfolio risk, with the effect being particularly pronounced around crisis episodes and for institutions with specific balance-sheet characteristics, reinforcing the risk-taking channel of monetary policy (Passos et al., 2024). These findings collectively support the idea that monetary policy does not generate a uniform risk response but interacts with competition, capitalization, and funding structures.

The review also reveals that the broader macroeconomic and policy environment conditions how monetary policy shocks translate into systemic risk. Duan et al. (2022) find that higher economic policy uncertainty raises bank systemic risk via leverage and risk-taking, implying that uncertainty can amplify the adverse risk effects of accommodative policy or constrain the effectiveness of tightening. From a financial stability perspective, Elsayed et al. (2023) show that central banks in the Gulf Cooperation Council adjust policy rates in response to a composite financial stability index, while Hudaya and Firmansyah (2023) report that higher policy rates in Indonesia are associated, on average, with improvements in financial stability indicators. Together, these studies suggest a bidirectional relationship: monetary policy influences financial stability, but it is also set with financial stability considerations in mind, creating a feedback loop between policy decisions and risk outcomes.

Another salient result concerns the transmission of monetary policy shocks through risk appetite in financial markets. Using high frequency data around major policy announcements, Bauer et al. (2023) show that unexpected monetary easing leads to persistent increases in risk indicators across equity, credit, fixed-income, and foreign exchange markets, confirming that monetary policy operates partly through shifts in investors' risk appetite rather than only through discount-rate or bank-lending channels. This market-based risk-taking channel complements bank-level evidence and helps explain why monetary policy shocks can simultaneously affect banks, non-bank intermediaries, and asset prices. When viewed together with the systemic risk perspective of Faia and Karau (2021) and the bank-level responses documented by Nguyen et al. (2022) and Passos et al. (2024), the results highlight a multi-layered transmission mechanism that spans balance sheets, competition, uncertainty, and global financial conditions.

Overall, the findings suggest that monetary policy shocks can both mitigate and amplify financial sector risk, depending on the structural and institutional context in which they occur. Accommodative policies in stable environments with robust macroprudential frameworks may support intermediation without excessive risk-taking, while similar policies in highly competitive or uncertain settings can fuel leverage and credit risk. Tighter policy can curb risk-taking but may temporarily heighten liquidity and market risk, particularly for highly exposed institutions. These nuanced results underscore the importance of coordinating monetary and macroprudential policies and of monitoring not only bank solvency but also market-

based indicators and risk appetite dynamics when assessing the full impact of monetary policy shocks on financial sector risk exposure.

5. Conclusion

The overall evidence synthesized in this review confirms that monetary policy shocks are a central driver of financial sector risk exposure, operating through multiple and interacting channels. Changes in policy rates and balance-sheet policies not only influence traditional macroeconomic targets, but also reshape banks' leverage, asset quality, funding structures, and market-based risk indicators. Accommodative policies tend to stimulate risk-taking particularly in competitive or weakly regulated environments while tightening can reduce risk appetite but may temporarily elevate liquidity and market risk for institutions with pronounced maturity transformation. At the same time, risk outcomes are shown to be highly context-dependent, shaped by banking market structure, capitalization, macroeconomic uncertainty, and the broader institutional framework, including the strength of macroprudential policies and financial stability mandates.

These findings imply that monetary policy cannot be assessed in isolation from financial stability and that central banks face a complex trade off between supporting economic activity and containing excessive risk-taking in the financial system. Effective policy design requires close coordination between monetary and macroprudential authorities, continuous monitoring of both bank-based and market-based risk indicators, and an explicit recognition of the risk taking channel and its international spillovers. For regulators and supervisors, the review highlights

the importance of capital and liquidity buffers, sound risk management, and robust institutional frameworks to dampen the amplification of shocks through leverage, risk appetite, and cross-border channels. For future research, the results point to the need for more work that integrates banks and non-bank intermediaries, employs clearly identified exogenous monetary policy shocks, and develops broader measures of financial sector risk that capture credit, market, liquidity, and systemic dimensions in a unified framework.

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