Financial Risk and Management: An International Journal
Volume 4, Number 2, 2025

The Effect of Global Regulatory Fragmentation on Systemic Financial Risk

Andrian Dwi Yanto[1]

[1] Universitas Indonesia Membangun, Bandung, Indonesia

Abstract

Article history:
Received: July 10, 2025
Revised: August 25, 2025
Accepted: Ovtober 11, 2025
Published: December 30, 2025

Keywords:
Financial Fragmentation, Macroprudential Policy, Regulatory Divergence, Systemic Financial Risk, Transnational Supervision.

Identifier:
Zera Open
Page: 124-136
https://zeraopen.com/journal/frmij

This article examines how global regulatory fragmentation affects systemic financial risk in an environment of deep financial integration, growing geopolitical tension, and rapid financial innovation. The main question is under what conditions divergent and overlapping rules across jurisdictions amplify, mute, or reshape the build-up and transmission of systemic risk. The study conducts a systematic literature review of peer reviewed work published between 2020 and 2024 that investigates links between regulatory fragmentation, financial fragmentation, and financial stability outcomes. The reviewed evidence shows that fragmented prudential and supervisory regimes are associated with segmented credit and capital markets, weaker risk sharing, and more fragile crisis transmission channels, while moderate diversity in rules can sometimes enhance competition and strengthen internal controls. Using narrative and thematic synthesis, the article compares how different strands of research conceptualize and measure fragmentation, identify transmission mechanisms, and assess policy trade-offs. The main findings highlight that the impact of fragmentation is conditional on its form, intensity, and the strength of cross border cooperation frameworks.

1. Introduction

Global efforts to strengthen financial regulation after the global financial crisis were intended to promote convergence in rules and supervisory practices, yet recent developments point to a renewed fragmentation of the regulatory landscape. Divergent implementation of prudential standards, ring fencing of capital and liquidity, and heterogeneous responses to crises and geopolitical shocks increasingly segment financial markets along jurisdictional lines. At the same time, systemic financial risk remains shaped by highly integrated cross border balance sheets and correlated exposures, so that distress in one market can quickly propagate across borders through funding, valuation, and confidence channels (Lucchetta, 2024). Empirical work on financial fragmentation in the euro area and other currency blocs shows that segmentation of sovereign bond and credit markets can impair monetary policy transmission and amplify the impact of shocks on financing conditions and financial stability (Calabrese et al., 2021; Candelon et al., 2022; Cartapanis et al., 2023).

Within this context, regulatory fragmentation refers to inconsistencies in the scope, timing, calibration, or enforcement of financial rules across jurisdictions and sectors, including banking, capital markets, and emerging fintech domains. Micro level evidence links fragmentation of regulatory responsibilities to differences in internal control quality and governance, suggesting that complex and overlapping rule environments shape how firms design controls and allocate compliance resources (Xu, 2024). Studies of European banking and corporate finance link fragmented prudential and supervisory regimes to home bias in lending, uneven access to finance, and persistent divergence in funding costs, all of which can heighten vulnerabilities during periods of stress (Calabrese et al., 2021; Candelon et al., 2022). Legal scholarship further argues that fragmented oversight and unclear regulatory perimeters encourage regulatory arbitrage and undermine coherent responses to financial innovation (Chiu, 2023).

Growing geopolitical tensions, the expansion of digital finance, and the proliferation of new risk categories such as climate and cyber risk have intensified these challenges. Analyses of financial and monetary fragmentation underline how the emergence of competing economic blocs, sanctions, and conflicting regulatory agendas can rewire capital flows and weaken multilateral safety nets, thereby increasing the probability and potential severity of systemic events (Müller & Kerényi, 2024). Research on optimal currency areas and international aggregate risk likewise highlights that financial fragmentation interacts with macroeconomic and policy shocks, limiting risk sharing and making sudden stops and contagion more likely when shocks hit highly leveraged or institutionally weaker jurisdictions (Cartapanis et al., 2023; Lucchetta, 2024).

Despite this growing body of work, academic evidence on the links between global regulatory fragmentation and systemic financial risk remains dispersed across sub literatures on banking union, capital market integration, fintech regulation, and international political economy, with limited synthesis of channels, measurement approaches, and policy trade-offs. This article addresses that gap by conducting a systematic literature review of peer reviewed studies published between 2019 and 2024 that examine regulatory fragmentation and its implications for systemic financial risk. The review maps how different strands of research conceptualize and measure fragmentation, identifies the main mechanisms through which it affects financial stability, compares findings across regions and market segments, and distils implications for the design of international regulatory cooperation and macroprudential frameworks in an increasingly fractured global financial system.

2. Literature Review

The literature on global regulatory fragmentation highlights that divergent and overlapping rules across jurisdictions are increasingly shaping the transmission of systemic financial risk. Early conceptual work stresses that fragmentation can alter cross-border risk sharing, collateral flows, and the effectiveness of macroprudential policies, with ambiguous effects on overall stability (Claessens, 2019). More recent contributions link fragmentation to the broader discussion of geoeconomic and financial fragmentation, arguing that inconsistent prudential regimes and the weaponization of finance can amplify volatility and undermine the backstop role of central banks and international safety nets (Aiyar et al., 2023). At the same time, studies of regulatory divergence in fintech and digital finance show that fragmented national approaches can create uneven playing fields and regulatory arbitrage, complicating the monitoring of systemic vulnerabilities that arise from new technologies and cross-border platforms (Vijayagopal et al., 2024).

Empirical research has begun to unpack how fragmentation affects financial intermediation and firm-level outcomes. Using data for European small and medium enterprises, Calabrese et al. (2021) document that greater financial fragmentation is associated with higher credit rationing, higher loan rates, and more discouraged borrowers, suggesting that fragmentation can concentrate risk in weaker segments of the real economy. At the corporate governance level, Xu (2024) finds that higher exposure to regulatory fragmentation in the United States is associated with fewer internal control weaknesses and reduced earnings management, indicating that multiple regulators and overlapping rules can increase scrutiny and constrain opportunistic behavior. In securities markets, Ibikunle et al. (2020) show that equity market fragmentation has a non-linear effect on adverse selection risk, where moderate fragmentation can enhance market efficiency through competition, but high fragmentation heightens information asymmetries. Taken together, these studies suggest that fragmentation can either mitigate or exacerbate risk depending on intensity, institutional quality, and market structure.

A third strand of literature focuses on financial integration and crisis-period dynamics, which indirectly captures fragmentation through measures of market co-movement. Qin et al. (2022) develop a framework for measuring market integration during global crises and show that integration falls sharply when volatility spikes and contagion intensifies, implying that fragmentation regimes can alter how shocks propagate across borders. Donadelli et al. (2024) review the complex evolution of financial market integration and emphasize that partial, uneven integration often coexists with pockets of fragmentation, which may either contain or transmit systemic stress depending on the configuration of regulatory and market linkages. Despite these advances, existing studies are mostly country- or region-specific and rarely provide a systematic synthesis of how global regulatory fragmentation, as distinct from pure market segmentation, shapes systemic financial risk across banking, capital markets, and fintech ecosystems. This gap motivates a systematic literature review that maps the channels, conditions, and policy responses through which regulatory fragmentation influences systemic risk.

3. Methods

This study uses a systematic literature review approach to synthesize current evidence on how global regulatory fragmentation affects systemic financial risk. The review focuses on peer reviewed journal articles published between 2019 and 2024 in order to capture the most recent phase of post crisis regulatory reform, geopolitical change, and financial innovation. Relevant studies were identified through structured searches in major academic databases such as Scopus, Web of Science, and Google Scholar, using combinations of keywords including "regulatory fragmentation", "financial fragmentation", "systemic risk", "financial stability", "macroprudential", "cross border regulation", and "global financial system". The search was restricted to English language articles. Conference papers, policy reports, theses, book chapters, and non-peer reviewed material were excluded. Reference lists of key empirical and conceptual articles were also screened to identify additional relevant studies that might not be captured by database queries.

A multi stage screening and coding procedure was applied to refine and analyze the final set of studies. First, titles and abstracts were reviewed to exclude papers that used the term fragmentation only in a narrow market microstructure sense or that did not address any link between regulatory divergence and financial stability, contagion, or systemic risk. Second, full text screening was conducted to retain empirical, theoretical, or review articles that explicitly examined regulatory or supervisory fragmentation across jurisdictions or sectors and discussed implications for systemic risk, crisis dynamics, or macroprudential policy. The selected studies were coded using a structured template that recorded publication details, region or country coverage, type of financial system, definition and measurement of fragmentation, methodological approach, systemic risk indicators, and main findings. Given the heterogeneity in methods and indicators, the evidence was synthesized through narrative and thematic analysis rather than quantitative meta-analysis, with the aim of identifying common channels, conditions, and policy trade-offs through which global regulatory fragmentation influences systemic financial risk.

4. Results and Discussion

The reviewed studies collectively indicate that global regulatory fragmentation has complex and sometimes opposing effects on systemic financial risk, depending on its intensity, scope, and institutional context. On one hand, fragmentation in prudential and supervisory regimes is associated with persistent segmentation in credit and capital markets. Evidence for European small and medium enterprises shows that higher financial fragmentation is linked to greater credit rationing, higher loan rates, and a larger incidence of discouraged borrowers, suggesting that fragmentation can concentrate risk in weaker firms and regions and make them more vulnerable to shocks (Calabrese et al., 2021). Research on monetary union fragmentation similarly documents that divergences in sovereign spreads, bank funding costs, and collateral valuations weaken monetary policy transmission and amplify the impact of stress episodes on financing conditions (Candelon et al., 2022; Cartapanis et al., 2023). From this perspective, regulatory fragmentation tends to undermine cross-border risk sharing and make transmission channels for systemic risk more fragile.

At the same time, the review also reveals that fragmentation is not uniformly destabilizing and may, under some conditions, act as a buffer. Studies of equity market fragmentation and financial integration show non-linear effects: moderate fragmentation or the presence of multiple trading venues can enhance competition, improve price discovery, and reduce adverse selection, whereas high fragmentation tends to increase information asymmetries and volatility (Ibikunle et al., 2020; Donadelli et al., 2024). In a similar vein, firm-level evidence on internal control quality suggests that exposure to multiple regulators and overlapping rule sets can increase scrutiny, reduce earnings management, and mitigate governance-related risks, even though it raises compliance costs (Xu, 2024). These findings nuance the conventional view that regulatory fragmentation is always harmful, instead pointing to threshold effects and interactions with institutional quality, market structure, and the design of supervisory cooperation.

The interaction between regulatory fragmentation and large shocks is a central theme in the more recent literature. Work on financial and geoeconomic fragmentation argues that the emergence of competing geopolitical blocs, sanctions regimes, and conflicting regulatory agendas can rewire capital flows and undermine multilateral safety nets, thereby increasing the probability and severity of systemic events when global risk sentiment deteriorates (Aiyar et al., 2023; Müller & Kerényi, 2024). Studies on optimal currency areas and international aggregate risk further highlight that fragmented financial systems provide weaker risk-sharing across countries, so that sovereign and banking crises are more likely to trigger sudden stops and contagion when they occur in highly leveraged or institutionally weak jurisdictions (Cartapanis et al., 2023; Lucchetta, 2024). At the micro level, heterogeneous approaches to fintech, digital platforms, and cross-border data governance create uneven playing fields and opportunities for regulatory arbitrage, complicating the monitoring of new systemic vulnerabilities that arise from highly interconnected, technology-driven financial infrastructures (Chiu, 2023; Vijayagopal et al., 2024).

Across these strands, the review finds that the effect of global regulatory fragmentation on systemic financial risk is fundamentally conditional rather than uniform. Fragmentation that merely reflects healthy diversity in economic structures and policy preferences, within a framework of strong cross-border cooperation and credible backstops, can coexist with stable financial integration and may even curb risk-taking in specific segments. By contrast, fragmentation that takes the form of uncoordinated ring-fencing, overlapping or conflicting rules, and deliberate geoeconomic contestation tends to weaken risk-sharing, distort incentives, and make crisis management more difficult. A key implication is that the stability impact of fragmentation cannot be inferred from formal differences in rules alone; it depends on how these differences interact with market linkages, institutional capacity, and the strength of international coordination mechanisms such as swap lines, resolution regimes, and macroprudential colleges. This suggests an agenda for future empirical work to move beyond static measures of regulatory divergence and to assess how specific patterns of fragmentation, embedded in particular regional and sectoral contexts, shape the build-up and transmission of systemic financial risk.

5. Conclusion

The review shows that global regulatory fragmentation influences systemic financial risk through several interconnected channels rather than exerting a simple, uniformly negative effect. Fragmented prudential and supervisory regimes are associated with persistent segmentation in credit and capital markets, uneven access to finance, and weaker cross border risk sharing. These patterns can concentrate vulnerabilities in specific firms, regions, and sectors, making them more exposed when shocks occur. Fragmentation also complicates the transmission of monetary and macroprudential policies, so that similar policy actions can produce very different outcomes across jurisdictions. At the same time, the evidence suggests that a certain degree of regulatory and market diversity can enhance competition, improve internal controls, and restrain excessive risk taking, especially when it is supported by strong domestic institutions and cooperative cross border frameworks.

These findings imply that the systemic impact of fragmentation depends critically on its form, intensity, and institutional context. Fragmentation that arises from uncoordinated ring fencing, overlapping or conflicting rules, and deliberate geoeconomic rivalry tends to erode trust, encourage regulatory arbitrage, and hinder crisis management. It can reduce the effectiveness of international safety nets and make it harder to coordinate responses when stress becomes systemic. In contrast, calibrated differences in regulations that reflect local economic structures and risk profiles, combined with credible mechanisms for information sharing and joint decision making, can coexist with financial stability and in some cases help contain risks in particular segments. The central question for both analysis and policy is therefore not simply whether fragmentation is present, but which configurations of divergence and cooperation are compatible with resilient financial integration.

For policymakers and researchers, this points to an agenda that combines improved measurement with more strategic cooperation. Empirical work needs to move beyond simple proxies of fragmentation and develop indicators that capture how specific regulatory divergences affect cross border exposures, risk taking incentives, and the transmission of shocks over time, including during crisis episodes. Future research should also examine how fragmentation in newer domains such as fintech, cross border data governance, climate risk, and cyber resilience interacts with more traditional banking and capital market rules. On the policy side, the results highlight the importance of strengthening macroprudential and resolution colleges, liquidity backstop arrangements, data sharing platforms, and common approaches to emerging risks, so that regulatory diversity is anchored within a shared framework for managing systemic events. In this way, authorities can acknowledge and manage a more fragmented world without allowing fragmentation itself to become a structural amplifier of systemic financial risk.

References

Aiyar, S., Chen, J., Ebeke, C., Garcia-Saltos, R., Gudmundsson, T., Ilyina, A., ... & Soderberg, G. (2023). *Geoeconomic fragmentation and the future of multilateralism*. IMF Staff Discussion Note. SDN/2023/01, Washington, DC: International Monetary Fund.

Calabrese, R., Girardone, C., & Sclip, A. (2021). Financial fragmentation and SMEs' access to finance. *Small Business Economics, 57*(4), 2041-2065.

Candelon, B., Luisi, A., & Roccazzella, F. (2022). Fragmentation in the European Monetary Union: Is it really over?. *Journal of International Money and Finance, 122*, 102545.

Cartapanis, A., Gagnon, M. H., & Gimet, C. (2023). Financially sustainable optimal currency areas. *Finance Research Letters, 58*, 104059.

Chiu, I. H. (2023). An institutional account of responsiveness in financial regulation-Examining the fallacy and limits of 'same activity, same risks, same rules' as the answer to financial innovation and regulatory arbitrage. *Computer Law & Security Review, 51*, 105868.

Claessens, S. (2019). *Fragmentation in global financial markets: Good or bad for financial stability?* BIS Working Papers, 815. Bank for International Settlements.

Donadelli, M., Gufler, I., & Paradiso, A. (2024). Financial market integration: A complex and controversial journey. *International Review of Financial Analysis, 92,* 103100.

Ibikunle, G., Mare, D., & Sun, Y. (2020). The paradoxical effects of market fragmentation on adverse selection risk and market efficiency. *The European Journal of Finance, 26*(14), 1439-1461.

Lucchetta, M. (2024). International aggregate risk: Effects on financial stability. *Economics Letters, 240*, 111773.

Müller, J., & Kerényi, Á. (2024). The Challenges of Fragmentation of the International Financial System-Towards a Brave New World Order?. *Financial and Economic Review, 23*(2), 131-155.

Qin, W., Cho, S., & Hyde, S. (2022). Measuring market integration during crisis periods. *Journal of International Financial Markets, Institutions and Money, 78*, 101555.

Vijayagopal, P., Jain, B., & Ayinippully Viswanathan, S. (2024). Regulations and fintech: a comparative study of the developed and developing countries. *Journal of Risk and Financial Management, 17*(8), 324.

Xu, H. (2024). Regulatory fragmentation and internal control weaknesses. *Journal of Accounting and Public Policy, 44*, 107191.