



The Influencing Factors, Formation Mechanism, and Countermeasures of Systemic Financial Risk

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Abstract. Navigating systemic financial risk represents one of the most pressing challenges to contemporary global financial stability. However, existing research has not yet fully illuminated the complete trajectory of this risk from its nascent accumulation to its eventual outbreak. This paper aims to bridge this gap by systematically reviewing the determinants, formation mechanisms, and countermeasures related to systemic financial risk. Integrating evidence from the macro, meso, and micro levels, it constructs a comprehensive analytical chain that traces the processes of risk accumulation, amplification, and contagion. The analysis reveals that systemic vulnerabilities originate from excessive leverage at the micro level, are subsequently magnified by procyclical dynamics within specific industries at the meso level, and are ultimately triggered by macroeconomic policy shifts or exogenous shocks. Consequently, effective risk prevention necessitates a multi-layered governance system capable of precise intervention at each stage of risk formation. The framework proposed herein offers both a conceptual map for understanding systemic risk and practical guidance for policymakers and market participants alike.

Keywords: Systemic financial risk, Determinants, Mechanism, Countermeasures, Multi-level governance

1 Introduction

The imperative to prevent and mitigate systemic financial risk remains a shared global concern. In today's deeply interconnected financial markets, localized disturbances possess the capacity to rapidly transgress borders, potentially triggering widespread instability. The 2008 subprime mortgage crisis serves as a stark illustration of this phenomenon. Figure 1, which displays the Global Financial Stress Index from the U.S. Office of Financial Research (OFR), visually captures the cyclical nature of systemic risk accumulation and eruption, clearly correlating major crises with significant spikes in systemic stress.

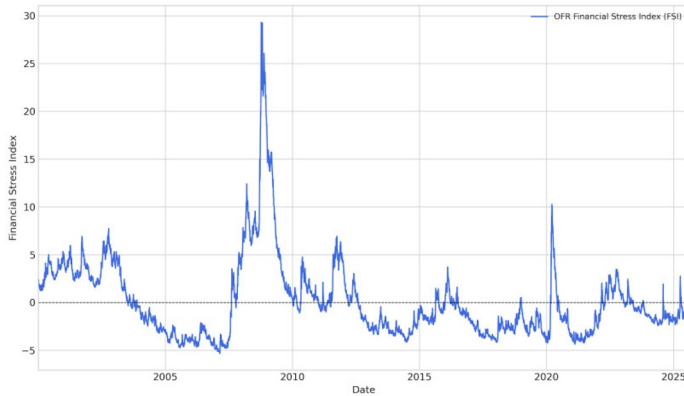


Fig. 1. Global Financial Stress Index

While scholarship on systemic financial risk has expanded considerably, many contributions remain siloed, often focusing on singular causes or specific contexts. The literature has seldom forged the distinct elements of determinants, mechanisms, and preventive measures into a unified analytical chain. Furthermore, the novel disruptions wrought by the COVID-19 pandemic and the recent shifts in global monetary policy underscore an urgent need for a more comprehensive and nuanced theoretical framework.

This paper addresses this gap by developing a holistic framework that transcends national boundaries to integrate multiple dimensions of risk. It moves beyond a simple cataloging of factors to meticulously uncover the complex interactions and feedback loops that bind them, thereby constructing a coherent and logically sequential causal chain. The ultimate goal is to provide a robust theoretical contribution and actionable insights, empowering economic agents worldwide to more effectively anticipate, manage, and neutralize systemic financial risk.

2 Influencing Factors of Systemic Financial Risk

Systemic risk arises from intertwined drivers operating across different levels of the economy. These can be grouped into macro, meso, and micro factors.

2.1 Macro-Level Factors

At the macro level, systemic vulnerabilities are primarily conditioned by two pivotal elements: policy choices and exogenous shocks. As the central instrument of economic management, monetary policy wields a dual capacity to both restrain and generate risk. On one hand, contractionary policies, by raising borrowing costs and tightening credit conditions, can strain highly leveraged firms and elevate default probabilities. (Zhang et al., 2020)¹. On the other side, prolonged monetary easing may encourage excessive risk-taking and undermine future stability (Kabundi & De Simone, 2020)³. This trade-

off highlights the need for close coordination between monetary and macroprudential policy.

Regulation is equally critical. As Andriosopoulos et al. (2015)³note, uniform and overly rigid regulation can unintentionally drive institutions into similar business models, which magnifies vulnerability when they face common shocks. Hence, a regulatory framework should be flexible enough to detect triggers and transmission channels and to adapt accordingly (Schwarcz, 2019)⁴.

Finally, geopolitical events add another layer of macro risk. Wang et al. (2022)⁴, drawing on the Ukraine conflict, show how geopolitical uncertainty increases volatility spillovers in commodity markets. Such events disrupt trade and supply chains, transmit through commodity prices and market sentiment, and ultimately heighten systemic fragility.

2.2 Meso-Level Factors

Meso-level dynamics are centered on industry-specific structures that can act as powerful conduits for propagating and intensifying risk. The real estate market serves as a prime example. Fluctuations in property values directly impact corporate financing capacity through the collateral channel. When asset prices decline, corporate balance sheets deteriorate, leading to a corresponding increase in systemic financial stress (Gao & Topuz, 2020)⁶.

The rise of financial technology (FinTech) also introduces novel vulnerabilities. Chaudhry et al. (2022)⁷ argue that large technology firms may face higher tail risks than traditional banks, due to their rapid growth and blurred regulatory boundaries.

A third critical factor is the ongoing evolution of banking business models. Research by Brunnermeier et al. (2020)⁸ reveals that a greater reliance on non-interest income sources, such as trading and investment banking, correlates with higher systemic risk exposure. This is because such activities create dense networks of interconnectedness with counterparties and financial markets, transforming these banks into potential nodes of contagion during a crisis.

2.3 Micro-Level Factors

At the micro level, the financial behaviors of households and firms constitute the foundational layer where systemic risk begins to accumulate. Excessive household indebtedness is one of the most reliable early-warning signals of financial instability. A cross-country study by Mian et al. (2017)⁹ found that while rapid growth in household credit can stimulate short-term consumption, it often presages weaker future economic growth and heightened vulnerability to shocks..

Non-financial corporations also play a central role. Dungey et al. (2022)¹⁰ show that these entities are not merely passive victims of systemic shocks but can actively transmit stress back into the financial system. Large, highly leveraged corporations, in particular, can become critical nodes of contagion, propagating risk through debt defaults and disruptions to supply chain integrity.

3 Formation Mechanism of Systemic Financial Risk

The formation of systemic financial risk is not a singular event but a dynamic, evolutionary process comprising three overlapping stages: accumulation, amplification, and contagion, as illustrated in Figure 2. Throughout this process, the macro, meso, and micro factors previously discussed interact dynamically, progressively transforming localized fragilities into a full-blown systemic crisis.

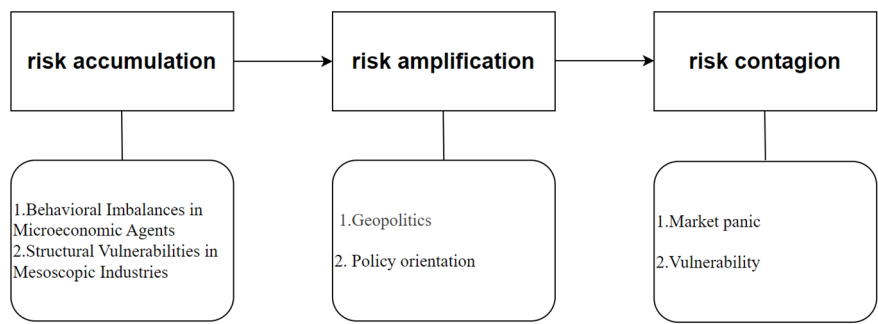


Fig. 2. Formation Mechanism of Systemic Financial Risk

3.1 Stage One: Accumulation

The genesis of systemic risk lies in the latent buildup of imbalances on the balance sheets of micro-level economic agents and structural vulnerabilities at the meso level. At the micro level, the excessive accumulation of debt by households and corporations serves as the primary seed of risk. As Mian et al. (2017)⁹demonstrated, rapid household borrowing, while offering a short-term demand stimulus, ultimately mortgages future economic growth and sows the seeds of a subsequent downturn. Similarly, corporate leverage, especially within large firms enmeshed in complex trade-credit networks, creates critical points of failure within the broader economic system (Dungey et al., 2022).¹⁰.

At the meso level, the procyclical nature of certain industries significantly accelerates this risk accumulation. The real estate sector is a classic case, where rising property values fuel greater borrowing and investment. This creates a powerful feedback loop between asset price inflation and leverage, systematically elevating the entire economy's debt burden(Gao & Topuz, 2020)⁶.

3.2 Stage Two: Amplification

Once a critical mass of vulnerability has accumulated within the system, an external or internal shock can catalyze a rapid and non-linear amplification of risk. Macro-level factors play a decisive role in this stage, acting as triggers. These shocks can be diverse, ranging from geopolitical events that disrupt global supply chains and commodity

markets (Wang et al., 2022)⁴ to domestic policy shifts. For instance, a contractionary monetary policy aimed at curbing inflation can inadvertently become the final straw that breaks the back of highly leveraged sectors by sharply increasing financing costs (Zhang et al., 2020)¹.

When such a shock occurs, the pre-existing vulnerabilities are magnified through mechanisms like the "financial accelerator." A negative shock triggers a fall in asset prices, which in turn erodes the collateral value on corporate and household balance sheets. This deterioration leads to a tightening of credit conditions, further suppressing investment and consumption, and initiating a downward spiral of economic contraction and asset price deflation.

3.3 Stage Three: Contagion

In the final stage, the amplified risk propagates rapidly through the intricate networks connecting financial institutions and the real economy, transforming a localized problem into a systemic crisis. Contagion unfolds through multiple channels, including direct creditor-debtor linkages, fire-sale dynamics that depress asset prices across the board, and information-driven market panic. If the regulatory environment has inadvertently fostered homogeneity in business models, the system becomes susceptible to a "one-fails-all" fragility, which dramatically accelerates the contagion process (Andriospoulos & Douady, 2015)³. Once the spread of risk crosses a critical threshold, essential financial functions seize up, and a full-blown systemic crisis emerges, inflicting severe and lasting damage upon the real economy.

4 Countermeasures for Systemic Financial Risk

Given that systemic risk develops across multiple, interconnected levels, an effective prevention and mitigation framework must also be multi-layered. It requires precise, targeted interventions at each stage of the risk formation process.

At the macro level, the cornerstone of prevention is the sophisticated coordination of monetary and macroprudential policies. The objective is to foster a stable macroeconomic environment that preempts the buildup of systemic vulnerabilities during economic upswings (Zhang et al., 2020)⁶. This entails a shift from rigid, static rule-making to a flexible, countercyclical regulatory approach. Such a strategy not only contains leverage during booms but also provides a crucial cushion against exogenous shocks, thereby reducing the probability of both risk eruption and contagion.

At the meso level, the focus must be on disrupting the transmission of risk from specific industries to the broader financial system. A one-size-fits-all regulatory approach is ineffective due to the heterogeneity of risk amplification mechanisms across sectors. An effective strategy must be differentiated, tailoring interventions to the unique risk profile of each industry. For instance, in the real estate sector, tools such as loan-to-value (LTV) ratio caps can be deployed to precisely target and restrain procyclical credit expansion (Gao & Topuz, 2020)⁶. The ultimate goal of such differentiated

regulation is to reduce systemic homogeneity and interconnectedness, preventing a single shock from escalating into a systemic crisis.

Finally, at the micro level, the key is to control the accumulation of risk at its source. Given the significant impact of household over-indebtedness, it is imperative to establish robust monitoring and early-warning systems for household leverage and to guide rational credit growth (Mian et al., 2017)⁹. For non-financial corporations, particularly those deemed systemically important, enhanced oversight of their debt levels and financing structures is crucial. Concurrently, developing efficient and effective debt restructuring and bankruptcy resolution mechanisms is essential to prevent the failure of a single large entity from triggering a domino effect, thereby safeguarding the bottom line of financial stability.

5 Conclusion

This study develops and articulates a chain-like analytical framework for understanding systemic financial risk. It demonstrates that the formation of such risk is a sequential process that seamlessly links micro-level leverage, meso-level amplification, and macro-level triggers. The findings reveal how localized imbalances can, through a series of interconnected channels and feedback loops, evolve into global crises. This interconnectedness renders piecemeal or siloed risk management approaches insufficient and obsolete.

Effective prevention, therefore, demands a coordinated, multi-level, and comprehensive governance architecture. This system must operate synergistically across all levels: containing leverage at its source by monitoring micro-level balance sheets, curbing risk amplification through targeted and differentiated meso-level regulation, and ensuring the consistency and foresight of macro-level policy. Only through the implementation of such an integrated and holistic strategy can the complex challenge of systemic financial risk be effectively managed and controlled, securing the foundations of global financial stability.

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