Original Research Article

The Chinese approach to FinTech risk governance

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Abstract: Driven by emerging technologies such as artificial intelligence and big data, the rapid development of financial technology (FinTech) has not only injected innovative momentum into financial markets but also posed new challenges to financial stability and regulatory frameworks. In response to these dual effects, strengthening FinTech risk prevention and control is both a strategic imperative for enhancing China's international financial competitiveness and an essential requirement for promoting high-quality economic and social development. From the perspective of financial stability governance, effective FinTech risk management should be guided by a coordinated "three-dimensional" framework. First, at the conceptual level, a dynamic balance must be maintained between technological innovation and risk control. Second, at the institutional level, financial regulation should be organically integrated with technology governance. Third, at the implementation level, an efficient coordination mechanism should be established, combining centralized policymaking with local execution. By improving the legal and regulatory framework governing FinTech and optimizing the design of supervisory mechanisms, China can explore and develop a distinctive approach to FinTech risk prevention and control that reflects its institutional characteristics and governance needs.

Keywords: financial stability governance; financial technology (FinTech); risk prevention and control

1. Challenges posed by FinTech development to financial stability governance

1.1.Challenges of FinTech to financial market stability

Financial technology (FinTech), driven by the integration of information technology and financial services, is transforming financial markets and service delivery. While FinTech does not alter the fundamental functions of finance, it enhances financial intermediation through innovations such as artificial intelligence, big data, blockchain, cloud computing, and mobile payments. These technologies improve market efficiency, accessibility, and financial inclusion, but they also introduce new risks to financial stability.

Blockchain increases transparency through distributed ledgers, yet its anonymity may facilitate illicit activities. Artificial intelligence improves decision-making efficiency but creates regulatory challenges due to algorithmic opacity. Big-data analytics enhances service precision while raising concerns over data privacy and security. Cloud computing strengthens operational resilience but may increase systemic vulnerabilities through technological concentration. Meanwhile, mobile payment platforms promote financial inclusion but can contribute to market concentration and potential monopolistic behavior.

These risks are highly interconnected and may reinforce one another, creating complex channels of risk transmission. As financial digitalization accelerates, traditional regulatory frameworks are increasingly inadequate for addressing the nonlinear and cross-sectoral nature of FinTech-related risks. Therefore, maintaining financial stability requires a governance framework that balances technological innovation with effective risk management. This entails strengthening regulatory coordination, improving technological governance tools, and fostering international regulatory cooperation to support sustainable FinTech development while mitigating systemic financial risks.

1.2. Challenges posed by FinTech institutions to financial regulation

FinTech innovation poses significant challenges to existing financial regulatory systems in three main respects.

First, the expansion of large technology companies into financial services has blurred the boundaries of traditional regulatory frameworks. Their innovative business models and complex transaction structures often fall outside conventional regulatory classifications, creating regulatory gaps. Moreover, the global nature of FinTech enables cross-border regulatory arbitrage, allowing institutions to exploit differences among jurisdictions. Such practices increase both domestic and international financial risks and challenge the effectiveness of existing supervisory frameworks.

Second, a persistent regulatory lag exists between technological innovation and regulatory response. FinTech firms can rapidly develop new products and expand their operations through technological advances, whereas regulators require more time to identify risks, formulate rules, and implement supervisory measures. This mismatch allows emerging risks to accumulate before effective oversight can be established. Furthermore, the dual financial and technological nature of FinTech makes traditional institution-based regulation increasingly inadequate, highlighting the need for coordinated supervision across sectors and regulatory authorities.

Third, FinTech introduces new channels of risk transmission that may amplify systemic vulnerabilities. As technology-driven financial firms expand, their systemic importance increases, raising concerns associated with the "too-big-to-fail" phenomenon and moral hazard. Large technology companies engaged in financial activities may generate substantial spillover effects due to their extensive market reach and interconnectedness. In highly networked financial ecosystems, even smaller institutions can trigger cascading failures through contagion effects. Therefore, regulators must move beyond traditional size-based approaches and adopt monitoring frameworks that focus on interconnectedness and risk transmission pathways to prevent the accumulation of systemic risks.

2. The necessity of FinTech risk prevention and control

2.1. The need to participate in international competition

FinTech has emerged as a key driver of transformation in the global financial system and a major arena of international competition. Countries around the world are actively promoting digital financial innovation through diverse regulatory and institutional strategies. Germany and Japan have developed bank-centered FinTech ecosystems, while the United States encourages innovation through regulatory frameworks that emphasize both market development and consumer protection.

China has made significant progress in FinTech development, becoming one of the world's leading digital finance markets. The rapid growth of mobile payments and the emergence of globally influential firms such as Ant Group and Tencent have enhanced financial inclusion, improved service efficiency, and strengthened China's competitiveness in the global financial sector.

However, the expansion of FinTech has also increased the complexity and speed of risk transmission. As a result, FinTech governance has become a major international policy concern. Different jurisdictions have adopted distinct regulatory approaches. The United States primarily relies on functional regulation, incorporating FinTech activities into existing supervisory frameworks, whereas the United Kingdom pioneered the regulatory sandbox model to facilitate innovation under controlled conditions. China has likewise introduced regulatory sandboxes and other innovative supervisory tools, gradually expanding regulatory objectives from systemic risk prevention to broader concerns such as consumer protection.

Despite variations in regulatory models, a common trend has emerged worldwide: Promoting innovation while strengthening risk management and safeguarding consumer interests. FinTech development and governance are mutually reinforcing. An effective governance framework not only mitigates financial risks but also encourages technological innovation and enhances national competitiveness. In the context of globalization, a governance system characterized by coordination, adaptability, and regulatory effectiveness can attract market participants, support industrial development, and strengthen a country's international influence. Therefore, establishing a FinTech governance framework that reflects national conditions while remaining internationally competitive has become a strategic priority for countries seeking sustainable financial development.

2.2. The need for social development

Technological innovation and the evolution of human civilization have always been closely intertwined.

From the Stone Age to the Information Age, every major technological breakthrough has profoundly transformed patterns of production and social life. Today, the information technology revolution, represented by computers, the Internet, and intelligent terminals, is driving humanity into a new stage of development. Technology is simultaneously constrained by social factors and capable of reshaping social structures. Within this interactive process, FinTech, as a product of the integration of information technology and financial services, represents an inevitable stage of historical development.

The rise of FinTech has generated both positive and negative consequences. On the one hand, it has substantially improved the accessibility and convenience of financial services. On the other hand, it has challenged traditional regulatory frameworks. These challenges manifest in two respects. First, FinTech innovation transforms traditional business models and may generate novel financial risks. Second, technology-enabled financial activities intertwine conventional financial problems with emerging regulatory concerns, thereby increasing governance complexity. Consequently, establishing a governance system that simultaneously promotes innovation and mitigates risk is essential to ensuring the healthy development of FinTech and enhancing social welfare.

From the perspective of social ecosystem theory, technological innovation drives social evolution by reshaping interactions among individuals, technology, and the broader environment. The development of FinTech primarily affects financial consumers, who constitute its core stakeholder group. Although technological applications improve service efficiency, increasing transaction complexity often exacerbates information asymmetries, rendering consumers more vulnerable to unfair or abusive financial practices. As FinTech services become increasingly widespread, their influence extends beyond specific user groups to society as a whole. This deep interaction between technology and society requires that consumer protection occupy a central position in FinTech governance. Institutional design must fully consider the social implications of technological applications in order to achieve an effective balance between innovation and social welfare.

3. The Chinese path to financial risk prevention and control

3.1. Advancing the legal framework for FinTech governance

The Third Plenary Session of the Twentieth Central Committee of the Communist Party of China identified the coordination of financial governance and technological governance as a key component of comprehensive reform, underscoring the importance of establishing a modern financial regulatory system. The Plenum explicitly called for the enactment of a Financial Law, within which FinTech regulation constitutes a significant legislative component. From the perspective of legal system construction, China's current financial legal framework encompasses five dimensions: Central banking law, financial industry law, financial factor law, financial regulatory law, and financial consumer protection law. Although FinTech may be categorized within the financial industry, its cross-sectoral nature necessitates its incorporation into the framework of financial regulatory law through dedicated legislative provisions.

FinTech legislation should be guided by three core principles. The first is certainty. The rapid development of FinTech has created a growing mismatch between technological innovation and existing regulatory rules, particularly in emerging areas such as algorithmic governance. Specialized legislation is therefore required to address regulatory gaps and respond to the challenges arising from technological complexity.

The second principle is coordination. Legislative efforts should promote both the integration of financial governance and technological governance and coherence within the broader legal system. Fundamental issues such as regulatory authority, algorithmic governance, and data security should be governed by mandatory legal rules, whereas areas characterized by greater market dynamism may be regulated through a combination of broad statutory principles and detailed administrative regulations. Furthermore, regulatory standards and policies across different agencies should be harmonized to prevent regulatory arbitrage.

The third principle is foresight. Legislation should preserve sufficient flexibility to accommodate future technological developments. While drawing upon international experience, China should avoid mechanical transplantation of foreign regulatory models. For systemically important financial institutions, differentiated disclosure mechanisms may be established, while mandatory disclosure requirements should be imposed with respect to cybersecurity risks. Such forward-looking institutional arrangements provide both normative guidance for addressing current challenges and policy space for responding to future risks.

At its core, FinTech legislation seeks to guide industry development through institutional innovation. Its central objective is to balance incentives for innovation with the need for risk prevention, thereby establishing a modern financial governance system with Chinese characteristics. This endeavor not only implements the reform agenda articulated by the Third Plenary Session but also provides an important institutional foundation for advancing Chinese modernization.

3.2. Reconstructing the FinTech regulatory framework

The construction of a FinTech regulatory system requires the organic integration of regulatory consistency, differentiation, and flexibility. Such regulatory innovation should not be understood as a mere adjustment to traditional supervisory frameworks but rather as a systematic reconstruction tailored to the characteristics of FinTech-driven convergence and innovation. Regulatory practice demonstrates that effective FinTech supervision must simultaneously pursue the dual objectives of risk control and innovation promotion. Accordingly, regulators should implement differentiated supervisory measures based on institutional size and risk profiles while maintaining sufficient flexibility to accommodate rapid technological change.

From a methodological perspective, a dynamic regulatory mechanism covering the entire life cycle of FinTech activities should be established. At the front end, preventive regulation should be strengthened through ex ante approval mechanisms, including algorithmic review procedures. During operational stages, process-based supervision should be enhanced through digital tools capable of ensuring full traceability of business activities. At the back end, comprehensive risk-resolution mechanisms should be developed to clarify the rights and responsibilities of market participants. This full-cycle regulatory approach incorporates innovative instruments such as regulatory sandboxes while adapting them to the specific characteristics of China's financial market, thereby forming a distinctive regulatory model with Chinese characteristics.

Regulatory coordination is essential to improving supervisory effectiveness. On the one hand, coordination between central and local authorities must be strengthened to prevent regulatory gaps and arbitrage opportunities. On the other hand, greater use of regulatory technology (RegTech) should be encouraged to enhance regulators' capacity for penetrating supervision of complex financial activities. Importantly, FinTech regulation is fundamentally a process of achieving a dynamic balance between security and efficiency. Regulatory measures should therefore retain an appropriate degree of flexibility, preventing systemic risks while preserving sufficient space for financial innovation. The ability to maintain this balance represents a key indicator of the maturity of a modern financial regulatory system.

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