

Internet Finance: Model Evolution, Financial Impact, and Risk Regulation

Yutong Zhang

*Sino-German College, Shanxi University of Finance and Economics, Taiyuan, China
17835129277@163.com*

Abstract. In recent years, internet finance—powered by mobile payment, big data, and cloud computing—has developed rapidly and reshaped the paradigm of financial intermediation. Grounded in financial intermediation theory, this paper reviews the conceptual connotation and development history, dividing it into four stages: germination, eruption, regulatory rectification, and high-quality development. It then summarizes the main models including third-party payment, P2P lending, crowdfunding, internet insurance, and fund distribution, and analyzes the "catfish effect" exerted on traditional commercial banks through financial disintermediation and interest-rate liberalization, as well as its contribution to financial inclusion. It then dissects credit, liquidity, operational/technical, and systemic risks, traces China's shift from "inclusive and prudent" to "look-through regulation," and draws on international experience from the FSB and BIS to discuss regulatory technology (RegTech). Finally, it looks ahead to emerging trends such as the convergence of artificial intelligence, blockchain, and open banking, and the advancement of the digital RMB.

Keywords: Internet Finance, Financial Disintermediation, P2P Lending, RegTech, FinTech

1. Introduction

Internet finance is the product of the deep integration between digital technology and the traditional financial industry. Since 2013—dubbed the "first year of internet finance"—business forms such as third-party payment, online lending, and crowdfunding have rapidly penetrated residents' daily financial activities, gradually moving from peripheral innovation into the mainstream.

From a finance perspective, internet finance is not simply "moving" financial business online. Rather, it relies on the low-cost information processing and matching capabilities of information technology to form a complement to—or even a substitute for—the traditional system in functions such as payment and settlement, credit intermediation, and asset allocation. Studying internet finance is of great practical significance for understanding the contemporary evolution of financial intermediation theory, assessing its impact on financial stability and the transmission of monetary policy, and designing a regulatory framework that balances innovation incentives with risk prevention.

To address these issues, this paper adopts a literature review methodology and analyzes five dimensions—conceptual connotation, development models, financial impact, risk regulation, and

future trends. For each dimension, where possible, the analysis is contrasted with recent empirical and normative research in the international academic community, aiming to provide a systematic cognitive framework for finance studies at the undergraduate level.

2. The connotation, development history, and theoretical basis of internet finance

2.1. Conceptual definition

There are differences in how the academic community defines internet finance. Xie et al. define it as "a financial model that takes the internet as a resource and big data and cloud computing as its foundation, adopting newly generated or relying on generated financial models" [1]. Compared with the internationally used terms "FinTech" and "Digital Finance," internet finance places greater emphasis on the intermediary role of internet channels and platforms in fund intermediation, while FinTech emphasizes technology-driven financial innovation and Digital Finance has a broader scope, including infrastructure such as central bank digital currencies. The three concepts overlap but differ in emphasis, and this paper discusses them together in a broad sense.

When citing FinTech and Digital Finance literature hereafter, the following conventions are adopted: literature that directly studies fund intermediation conducted through internet platforms, such as third-party payment, online lending, internet credit, is treated as equivalent to "internet finance" and included. By contrast, literature that involves only underlying general-purpose technologies or financial infrastructure, such as central bank digital currencies, purely technical-end innovations, is unrelated to the internet platform's intermediary function and is included only to the extent relevant to traditional financial intermediation functions, and not treated as fully equivalent. This keeps the conceptual boundary clear and avoids confusing readers about the scope of the concepts used in this paper.

2.2. Theoretical basis

The rise of internet finance can be explained under classic financial intermediation theory. Mishkin [2] points out that the core function of financial intermediaries is to mitigate information asymmetry and reduce transaction costs. Internet finance weakens the information barriers between borrowers and lenders through big-data risk control and online credit reporting, partially assuming the credit-assessment function. Anderson's [3] "Long Tail" theory explains that internet platforms can serve massive long-tail customers that traditional finance struggles to cover at near-zero marginal cost, thereby expanding the boundary of financial inclusion. In addition, the "financial disintermediation" theory depicts the process by which funds bypass traditional commercial banks and are allocated directly between supply and demand. Internet finance is a typical manifestation of retail-end financial disintermediation.

2.3. Development history

China's internet finance has roughly gone through four stages. First, the germination stage (early 2000s–2012): online banking gradually became widespread. Alipay was founded in 2004, opening the era of third-party payment, while the central bank issued the "Measures for the Administration of Payment Services by Non-Financial Institutions" in 2010, implementing license management. Second, the eruption stage (2013–2015): Yu'eobao was launched in 2013, rapidly scaling up by combining money-market-fund cash management with mobile-payment scenarios, and was regarded

as the "first year of internet finance". During this period, the number of P2P platforms surged, while crowdfunding began to emerge. Third, the regulatory rectification stage (2016–2020): risk events such as Ezubao were exposed. In 2016 the General Office of the State Council issued the "Implementation Plan for the Special Rectification of Internet Financial Risks," the P2P industry entered a phase-out, and by the end of 2020 operating platforms had essentially dropped to zero. Fourth, the high-quality development stage (2021–present): the regulatory framework took shape, while online micro-lending and loan-assistance businesses were brought under licensed management. Meanwhile, the pilot of the digital RMB (e-CNY) expanded, and the industry shifted from "reckless growth" to "regulated development."

3. Main business models and their impact on the traditional financial system

3.1. Main business models

First, third-party payment. Represented by Alipay and WeChat Pay, and relying on centralized reserve custody, fully implemented by the central bank in 2019, and the NetsUnion clearing platform, it has become infrastructure in the mobile era. Jagtiani and Lemieux [4] point out that the accumulation of payment data has in turn empowered the expansion of FinTech credit. Second, P2P online lending. It should have served as an information intermediary matching borrowers and lenders, but in practice a large number of platforms mutated into credit intermediaries, engaging in maturity mismatch and implicit guarantees, planting seeds of liquidity and credit risk; Buchak et al. [5] describe this as a "shadow banking" phenomenon under regulatory arbitrage. From the perspective of "soft information" screening, Iyer et al. [6] point out that P2P platforms have limitations in identifying the quality of small borrowers. Third, crowdfunding. Divided into reward-based and equity crowdfunding, the empirical studies of Mollick [7] and Cumming and Johan [8] both show that crowdfunding lowers the financing threshold for start-ups but is accompanied by information asymmetry and fraud risk. Fourth, internet insurance. Through scenario-based embedding (e.g., e-commerce return-shipping insurance) and UBI pricing based on driving behavior, it reconstructs the logic of insurance distribution and actuarial science. Fifth, internet fund distribution. Typified by Yu'ebao, this model combines money-market funds with payment scenarios, promoting the inclusivization of cash management.

3.2. Impact on the traditional financial system

First, internet finance promotes financial disintermediation and interest-rate liberalization. Internet money-market funds have increased residents' sensitivity to deposit rates, accelerating the marketization of commercial banks' liability-side costs [9]. Second, it creates a "catfish effect." The "deposit migration" triggered by third-party payment and "Yu'ebao-style" products compresses banks' low-cost funding sources, prompting commercial banks to develop direct banks and open banking to cope with competition. Third, internet finance enhances financial inclusion by covering long-tail customers neglected by traditional finance at near-zero marginal cost [10]. Fourth, it optimizes service efficiency and cost structure, as online risk control substantially reduces the marginal cost of small-loan credit. However, Frost et al. [11] warn that BigTech, leveraging its data advantage, may form new market concentration, and the potential impact of a "winner-takes-all" pattern on competition and financial stability must be guarded against.

This creates a tension between the "catfish effect" and "winner-takes-all". As noted earlier, internet finance uses competition to force traditional banks to reduce costs and improve efficiency

[9], constituting a "catfish effect"; while the studies of Frost et al. [11] and Gambacorta et al. [12] show that BigTech forms a credit-assessment advantage from payment and scenario data and may move toward a "winner-takes-all" data-monopoly landscape. The coexistence of the two constitutes an inherent tension: the competitive dividend brought by innovation offsets the market-concentration risk it breeds. This paper does not intend to draw a conclusion here, but only points out that regulation needs to maintain a dynamic balance between "encouraging competition" and "preventing concentration."

4. Risk regulation and future development trends

4.1. Risk map and typical events

The risks with internet finance are compound and cross-cutting. Credit risk is manifested in borrower defaults and platform self-financing; liquidity risk arises from maturity mismatch and concentrated runs; operational and technical risks include system failures and data leaks; legal and compliance risks originate from unlicensed operation and regulatory arbitrage. These risks can evolve into systemic risk through cross-platform contagion.

The 2015 Ezubao case, the Genneva (Fanya) event, and the subsequent concentrated P2P implosions highlighted the compounded destructive power of credit and liquidity risks. Gomber et al. [13] point out that technology-driven financial innovation often precedes risk awareness and regulatory capacity, posing a lagging challenge to prudent regulation. This "lag" is reflected in multiple events: the P2P industry exposed risks as early as the 2015 Ezubao incident, but the phase-out of the entire industry was not essentially completed until the end of 2020, with regulatory intervention lagging markedly behind risk accumulation [14]. More emblematic was the suspension of Ant Group's IPO in November 2020—prior to this, the regulatory characterization of its "financial holding company" nature had long been absent, and it was only with the implementation of the "Trial Measures for the Supervision and Administration of Financial Holding Companies" in November 2020 that such platforms were brought into the prudent regulatory framework [15]. These cases show that the catch-up of regulatory awareness and institutions often lags behind the speed of innovation and risk exposure.

4.2. Regulatory evolution and RegTech

China's regulatory attitude has shifted from early "inclusive and prudent" to "look-through regulation". In 2015 the central bank and ten other ministries issued the "Guiding Opinions on Promoting the Healthy Development of Internet Finance" followed by the launch of a special rectification in 2016. After 2020, online micro-lending and loan assistance were successively brought into the prudent regulatory framework. This shift is not a mere policy statement, but the result of the combined action of risk events forcing change and macroeconomic constraints. On the one hand, risk events such as Ezubao, Fanya, and the concentrated P2P implosions exposed the cost of the regulatory gap under "inclusive and prudent," directly driving the 2016 special rectification [14]. On the other hand, against the background of leverage-ratio constraints and the prevention and resolution of major risks, the regulator proactively tightened capital and licensing requirements for finance-like businesses, bringing online micro-lending, loan assistance, and financial holding companies into the prudent framework [15]. Driven on two fronts—risk disposal and macro-control—the regulatory logic shifted from "embracing innovation" to "looking through the substance and operating with a license".

At the international level, the FSB [16] emphasizes identifying the potential impact of FinTech on financial stability, while the BIS [17] proposes prudential requirements for bank–FinTech cooperation, and the IMF [18] advocates the "technology-neutral" principle of functional regulation. Regulatory technology (RegTech), using big data and artificial intelligence to achieve real-time monitoring, anti-money-laundering, and customer identification, has become a key tool for balancing innovation incentives with financial stability [19].

4.3. Future development trends

First, deeper technological convergence. Artificial intelligence will improve the precision of robo-advisory and risk control; blockchain will empower supply-chain finance and cross-border payments; open banking reconstructs the financial ecosystem through APIs [20]. Second, the advancement of the digital RMB. As legal tender, e-CNY will reshape the underlying architecture of payment and settlement. Shen's [21] empirical study further points out that the digital RMB (e-CNY) can, by enhancing the stability of the RMB's value and the convenience of international settlement, facilitate RMB internationalization and promote the diversification of the international monetary system; its experiments in cross-border payments and the "multi-CBDC bridge" deserve continued attention. Third, licensing and compliance. All entities substantively engaged in financial business must operate with a license and return to serving the real economy. Fourth, data security and cross-border coordination. A balance is sought between privacy protection and the circulation of data as a factor of production, and international regulatory cooperation is strengthened to address cross-border FinTech risks.

5. Conclusion

Internet finance represents the reconstruction of financial intermediation functions driven by information technology. While improving the efficiency of resource allocation and expanding financial inclusion, it also brings new risks and regulatory challenges. In the future, the industry will develop within a framework of licensed compliance, deeply integrate with frontier technologies and, supported by infrastructure such as the digital RMB, move toward a more stable and more inclusive stage of development. This paper is limited by its primary focus on domestic practice as its main thread and provides limited international comparison. Future research could combine cross-country panel data for empirical testing, so as to deepen the quantitative understanding of the economic consequences of internet finance.

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