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**2021 Pujiang Innovation Forum Bulletin III**

**Financial Reform in the Digital Era**

**Editor’s Note:** In 2021 Pujiang Innovation Forum – Fin-Tech Forum, with the theme of “Financial Reform in the Digital Era” , several well-known experts and scholars had in-depth discussions on how to better promote the digital reform, and proposed a lot of important ideas as well as forward-looking and constructive suggestions. This bulletin is a summary based on the reports from the participating guests<sup>1</sup>, and is intended for reference.

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<sup>1</sup> TU Guangshao, Executive Director of the Board of Directors of Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University and Chief Expert of Shanghai Financial and Development Laboratory; ZHOU Yuefeng, Vice President of Huawei Technologies Co., Ltd. and President of Data Storage and Intelligent Vision; LI Feng, Professor of Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University and Co-Director of Shanghai Advanced Institute for Financial Research; Harry QIN, CEO of OneConnect Retail Finance Division; GU Lingyun, Founder, Chairman of ICE KREDIT.

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### **Financial Reform in the Digital Era**

The general trend of digital reform has emerged, and will exert a profound and long-term impact on the global economic and financial system. With the ongoing economic and social changes, digitization is penetrating into finance at an unprecedented speed. All regions in China are trying hard to become the pilot zones for fintech innovation regulation, financial institutions are speeding up to embrace new digital technologies, and fintech enterprises are putting innovative applications in place at an increasing speed. To promote the digital reform through the development of fintech has become an important issue for the government, the academia and the industry.

#### **I. Fintech Has Become a Major Driving Force for Digital Reform**

**Firstly, fintech has become a global trend in digital reform.** In recent years, the global trend of the digital reform has become increasingly evident and the digital economy is constantly being scaled up. According to **LI Feng**, with reference to the data from *White Paper on Development of China's Digital Economy* launched by the China Academy of Information and Communications Technology, China's digital economy reached the scale of CNY 39 trillion in 2020, accounting for around 39% of the total GDP with a growth rate 3 times that of GDP,

which shows that the digital economy is an essential driving force for China's economic development under the new development pattern. Fintech plays a principal role in the wave of global digital reform. In the opinion of **Harry QIN and GU Lingyun**, China ranks high globally in terms of fintech. According to **TU Guangshao**, China has unique advantages in the global wave of fintech development. In addition, as a vital part of Shanghai International Financial Center, fintech also exerts nationwide and even international influence.

**Secondly, fintech reconstructs the financial system through digitalization.** In the opinion of **TU Guangshao**, the reconstruction of the financial industry by fintech has moved into a new phase. From basic support, to support + empowerment, and then to support + empowerment + replacement + destruction, fintech is constantly reconstructing the financial system, having profound influence on the form of financial institutions, the financial industry and the financial ecosystem. As pointed out by **ZHOU Yuefeng**, the interruption of financial services, especially the interruption of data flow, would make a tremendous impact. In "9/11", the Twin Towers of the World Trade Center in New York City collapsed, where two banks set data centers: the Bank of New York and Deutsche Bank. Six months later, the Bank of New York went bankrupt but Deutsche Bank was in business as usual. The reason is that, in addition to the small data center in the Twin Towers, Deutsche Bank also set up another data backup center in a city dozens of kilometers away.

**Thirdly, fintech optimizes the governance system through digitalization.** As pointed out by **ZHOU Yuefeng**, after data is promoted into a kind of production material, the importance of data in each country around the world becomes comparable to that of state sovereignty. In the opinion of **LI Feng**, under the new development pattern, digital economy, especially fintech, plays an important role in optimizing the governance system in our country, by reducing information asymmetry through financial digitalization, improving the efficiency of government resource allocation and the scientificity of policy making, realizing efficient supply and demand matching through digitalization to promote the domestic circulation, pushing service trade development to drive the international circulation with intellectual property, IP financialization and digitalization. Take the urban governance in Shanghai as an example. As a megalopolis, Shanghai's urban governance, operation and management are closely related to digitalization, especially the engagement of fintech in the construction of Shanghai International Financial Center, which is an important part of the construction of "Five Centers".

## **II. There are still Several Bottlenecks in Promoting the Digital Reform through the Development of Fintech**

**Firstly, fintech infrastructure is yet to be enhanced.** In the opinion of **TU Guangshao**, data is the most-used and most underlying part in all the fintech areas in China, which brings non-traditional risks related to underlying data, including the risks related to data assets. As

pointed out by **ZHOU Yuefeng**, data assets are under a number of threats and thus the protection over data is urgently needed. For example, the financial industry in China has abundant data and applications while lacking data backup. It's awful that the proportion of data backups for disaster recovery following the principle of "one major bank with three centers in two locations" is lower than 50% in many joint-equity banks, and even lower than 20% in urban commercial banks and rural credit cooperatives. And for another example, a specialized FC protocol used to transmit online data in a financial information system is now outdated because of the insufficient bandwidth and the severe depletion.

**Secondly, technological innovation in fintech needs to be accelerated.** As pointed out by **GU Lingyun**, in China, only 30% of SMEs have the access to credit, 90% of which are bonded and 5% of the remaining 10% are secured. However, credit is more accessible for the unbonded SMEs in America, making a stark contrast to China. The main reason is that the technological innovation in fintech of China is still lacks depth and breadth, and there's still room for improvement in terms of online channels, model hash rate and algorithm accuracy. In the opinion of **ZHOU Yuefeng**, China is a major software user, but definitely not a country with advanced software technologies. As a result of the previous ignorance of the value of software, and the broad consensus that many software products are supposed to be free of charge, the technology regulation and management over software in China are relatively loose, making some software "being hit in the throat" in the US-China rivalry.

As proposed by **Harry QIN**, strategic planning requires the support from data; enterprise management requires digitalization empowerment; and the technological innovation in fintech requires further improvement to support enterprise decision and management.

**Thirdly, challenges in fintech regulation are increasingly serious.** As pointed out by **TU Guangshao**, fintech regulation is faced with three challenges. The first challenge concerns fair competition, including the potential challenges brought by the financialization of scientific and technical companies, the cephalization of fintech companies and the monopolisation of the leading companies. The second challenge concerns risk prevention for the new risk areas and risk subjects brought by fintech, marked by new risk features. The third challenge concerns the protection over financial consumers' rights, which becomes more difficult and demanding on data security, privacy protection and behavioral compliance. In the opinion of **LI Feng and GU Lingyun**, the contradictions of different degrees between financial marketing and protection of personal information, and between data application and data protection are yet to be solved.

### **III. Promoting Digital Reform through the Development of Fintech requires the Joint Efforts of “Solid Foundation, Scenario Materialization and Effective Regulation”**

**First, solid foundation.** In the opinion of **ZHOU Yuefeng**, fintech

infrastructure can be consolidated from six aspects: use silicon medium rather than magnetic medium; accelerate the application of zero-packet-loss Ethernet (NoF+) as the storage network; reduce dependence on open-source software in core business; beef up the legislation of software safety certificate; prepare backups of core data for disaster recovery; and adopt separate storage and calculation for big data.

**Second, scenario materialization.** As pointed out by **LI Feng, Harry QIN and GU Lingyun**, we shall promote the fintech regulation sandbox projects launched by the People's Bank of China into materialization. In the opinion of **LI Feng and GU Lingyun**, we may gradually loosen regulatory restrictions on sandbox applicants to welcome more independent scientific and technical companies and develop more application scenarios for inclusive finance. In the opinion of **Harry QIN**, we may clearly define non-financial core data and regulate the negative list with reference to the American FCRA pattern. If we need to judge someone's repayment capability, it's a must to use the core financial data in FCRA and grant access only to licensed financial institutions; if we need to judge someone's repayment willingness rather than capability through non-financial core data, it will require a wider range of data. Substantial regulation will provide scientific and technical companies with a base flexible enough to create more application scenarios in both cases.

**Third, effective regulation.** According to the suggestion from **TU**

**Guangshao**, to effectively regulate fintech, we shall firstly clarify the regulation principles to strengthen specificity, applicability and sustainability, secondly establish an all-around regulatory system stressing institutional regulation, functional regulation and behavioral regulation, and thirdly improve regulation methods, including optimizing the regulatory path, innovating regulatory methods, and applying regulatory technologies. According to the suggestion from **LI Feng**, with an exception for extreme privacy, we may adopt the negative list institution to encourage fintech innovation and keep a balance between innovation and regulation on the macroeconomic level through guidance or relatively clear regulations. According to the suggestion from **GU Lingyun**, regulators may take more substantial regulatory measures as effective supplements to provisions. As proposed by **ZHOU Yuefeng**, we shall effectively regulate the software involving financial business, especially open-resource software, to avoid security risks.

**Summarized by Zhang Yuan**