Fintech opportunities for commercial banks under the COVID-19

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Key words: COVID-19, Fintech, commercial bank, opportunities to challenge.

Abstract: global economy, growing importance of innovations as well as wide use of technologies have changed the banking business worldwide. Financial technologies (Fintech) have become an integral part of banking, and nowadays banks have started to compete beyond financial services facing increasing competition from nonfinancial institutions providing, for example, payment services. Start-up service providers, search engines, and social networks have expanded their services "interfering" in the fields traditionally covered by banks. The rapid rise of Fintech has changed the business landscape in banking asking for more innovative solutions. These recent tendencies require the banks to increase investment in Fintech, rethink service distribution channels, especially the business-to-consumers models, increase further standardization of back-office functions, etc. Some members of the financial services industry see the boom in Fintech as a threat to traditional banking industry. Others believe that Fintech has become a challenge that can be turned into an opportunity as it provides more flexibility, better functionality in some areas, and aggregation of services. The aim of the paper is to analyze the recent trends in banking, identifying opportunities and risks of Fintech for banks. A timely integration of Fintech into business allows banks to get an advantage in growing competition. This paper provides an extensive analysis of recent trends in Fintech and banking, examining experience of leading European and US banks, as well as surveys conducted among members of the financial services industry in different countries. The authors have studied the development of the financial innovation and technology market, assessed the existing practices applied in the field of fintech, identified the main risks related to development of Fintech and financial innovations the banks are exposed to on the micro- and macrolevel. The paper provides recommendations for regulators and banks to ensure reduction of risks associated with development of fintech. Analysis of fintech market has shown growing competition, including from nonfinancial institutions. The paper provides practical recommendations to commercial banks for strengthening the position in financial innovations and controlling the risks associated with introduction of financial innovations.

1. Introduction

In 2020, the novel coronavirus pneumonia broke out in Wuhan and then spread across the country. The epidemic was severe and had a huge impact on the daily operation of enterprises, schools and communities across the country. In the face of the novel Coronavirus outbreak, the general public, both enterprises and individuals, have experienced significant changes in their financial needs. For individual retail customers, who want to be able to do all their business without leaving home, demands for "zero touch" financial services are at its highest. As for enterprises, the epidemic has disrupted the normal production and operation plans of many enterprises, and many enterprises, especially micro, small and medium-sized enterprises, may face great pressure of capital chain. Many enterprises are involved in trans-regional and transnational business, so how to ensure the normal operation of enterprise funds in the case of employees unable to work on site has become a major test. Enterprises hope that banks and other financial institutions can provide convenient, quick and comprehensive financial services without meeting each other.

The COVID-19 pandemic in 2020 has brought a "crisis" for the development of commercial banks, while fintech has provided new "opportunities" for the transformation and development of the

banking industry. Since 2020, fintech, as a key technological means to serve the real economy and promote the development of inclusive finance, has attracted more attention from government regulators. This paper reviews the current situation of fintech development and its impact on commercial banks, and focuses on discussing the opportunities brought by the outbreak of COVID-19 to commercial banks. In the future, how commercial banks use fintech to enhance their profitability and how to improve the competitiveness of the industry are the key points to discuss in this paper.

2. The concept of fintech

So far, the development of fintech does not just refer to the financial innovation promoted by the upgrade of information technology, but is more reflected in the ideology of a service model. As a financial innovation, fintech mainly covers infrastructures of financial products and services, organizations, business processes and systems, as well as business models (Gimpel et al., 2016). In 2016, the Financial Stability Board (FSB) generally referred to fintech as the innovation of technology-based financial services, which has become a global consensus. They deem fintech as the creation of new models, businesses, processes and products, and as technological innovations that can affect financial markets, institutions and services significantly, both front-end and back-end [1].

From the perspective of the development of financial technology in China, it has gone through three stages: financial electronization and informatization, Internet finance and financial technology. The first stage is from 1980 to 2007. During this stage, domestic commercial banks have realized the electronization of business records and the application of IT systems under the influence of economic environment. The second stage is from 2007 to 2016, and the development of this stage is mainly influenced by technological development and policy promotion. In this stage, the new financial business model was mainly realized. A group of new Internet enterprises also enter the financial industry for promoting the business model innovation of traditional financial institutions while competing. The third stage is from 2016 to present, which is mainly characterized by financial institutions innovating traditional businesses based on emerging technologies to reshape the financial industry ecology [2].

At present, China's fintech 3.0 stage has come, no matter financial institutions, technology research and development companies or fintech solution providers are gradually blurred boundaries of participation, financial industry ecological emerging technology and financial business integrate deeply to promote the transformation and upgrading of China's financial system. In order to enhance the quality and efficiency of financial services, fintech contributes an important force to the establishment and improvement of a highly adaptable, competitive and inclusive modern financial system.

3. The prospect of Fintech development in China and its impact on commercial banks

3.1. Development prospects of Fintech in China

Since China's economic system and scientific and technological system reform has been carried out for more than 20 years, the main body of scientific research force has entered the main battlefield of national economy. Under the background, China's high-tech industries are developed by leaps and bounds, but a high level of science and technology combined with economy is not yet mature. Science and technology enterprises should give full play to the role that the "science and technology are the first productivity" to avoid being out of joint with the development of the economic and social science and technology, thus, improving the economic and mutual promotion of science and technology of the new operation mechanism.

First of all, science and technology enterprises should strengthen their own internal development, not be influenced by capital, always adhere to technology precipitation and research and development, and make technology solid and fine [3]. Secondly, science and technology enterprises should give full play to their technological advantages, combine the ecology and technology accumulated for a long time, unite with financial institutions, improve financial supply, and jointly open up a new financial

market. A batch of fintech products and services suitable for China's national conditions will be formed to improve the quality and efficiency of financial services and the vitality of financial innovation, and push fintech to a new level.

3.2. The impact of fintech on the development of commercial banks

At present, the domestic epidemic has slowed down, and all industries have gradually resumed work and production. However, the changes in the financial environment and financial demand brought about by the epidemic are still ongoing. Both "zero contact" and "scenario-based finance" will be the trends of financial development. The epidemic has made banks more aware of the need for zero-touch service improvement, so that commercial banks have a stronger and more real understanding of the transformation of fintech and service, and are more eager to improve their service level and promote business development by improving their technology and finance capabilities.

3.3. New challenges and opportunities for fintech development under the impact of COVID-19

3.3.1. Retail customers' service experience in a zero-contact environment

As commercial banks have increased investment in science and technology in recent years, "contactless service" channels such as network banking, mobile banking, mini program and other electronic channel service management have been realized, but it is still difficult to achieve a truly "contactless" business operation mode. Under the impact of the epidemic, the family situation, economic conditions and risk preference of some existing customers may be affected. How to accurately identify the change of customer characteristics and provide new products and services sets high requirements for the intelligence and innovation of commercial banks. In addition, as offline marketing services are difficult to develop, how to identify and analyze the risk preference characteristics of new customer groups to "expand customers" has become one of the urgent problems for commercial banks [4].

3.3.2. Credit support for micro, small and medium-sized enterprises under the epidemic

Before the outbreak of the epidemic, China was in a period of changing growth rate, and the proportion of the tertiary industry in the economy had significantly increased. Small, medium and micro enterprises had developed into an important force driving China's economic development. However, as SMEs are unable to meet the requirements of banks for adequate collateral, the financing difficulties of SMEs have always existed even though the supply chain finance industry is faced with the problem of core right confirmation. The credit risks caused by the impact of the epidemic have intensified the difficulty of financial support. At the same time, in the short term, the epidemic has weakened the demand for credit, and "face-to-face signing" is facing many difficulties, which also poses challenges to banks' new business expansion. The weakening of some existing customers' qualifications will also increase the non-performing rate of banks and increase the assessment pressure of small and medium-sized banks. It indicates that the impact of the epidemic on the credit of small, medium and micro enterprises has an impact on the realization of the financial functions of commercial banks, and even forms a closed-loop effect [5].

3.3.3. Promote the upgrade of traditional commercial banks' IT systems

The epidemic has accelerated the upgrading process of traditional commercial banks' IT systems. For example, the outbreak of COVID-19 has made enterprises realize the importance of privatizing cloud platform systems. However, many business projects of banks involve trade secrets, and data security is very important. Small and medium-sized banks, which have difficulty in cloud computing migration, cannot realize telecommuting, resulting in a significant decrease in project operation efficiency under rotation. At the same time, banks attach great importance to IT expenditure and technology development. The application of smart operation in the epidemic situation accelerates the transformation of traditional IT architecture of banks, and the transformation and upgrading of the underlying architecture also brings huge economic pressure on the cost side of banks.

3.3.4. Commercial banks should balance steady growth and risk prevention and control

Commercial banks should balance steady growth with risk prevention in the face of the epidemic. As a pro-cyclical industry, the decline of economic growth leads to pressure on banks' earnings and increased exposure to asset quality risks. The impact of the epidemic on the credit status of banks in different regions and industries is significantly different, especially for small and medium-sized banks serving small and medium-sized enterprises. At the same time, the outbreak of the global epidemic intensified the volatility of the financial market, and the spread of panic also increased the liquidity pressure of small and medium-sized banks. Therefore, it is very important for banks to improve their risk management capabilities ^[6].

3.3.5. Increased competition in the commercial banking industry

Outbreak wisdom before operation, intelligent risk control in areas such as the layout of the head bank in advance or the Internet bank has the first mover advantage, are able to quickly respond to risk events in the short term. There are enough technical support to cope with the epidemic of new scenes and new formats, producing the siphon effect of customer, helping to promote the future development of core competitiveness. For example, MyBank focuses on the implementation of "contactless loans" for small and micro enterprises, while Webank focuses on the marketing of intelligent products and scene products for individual users. Therefore, the epidemic has also brought opportunities for the digital transformation of banks. Banks are aware of the impact of insufficient technology on business operations and pay more attention to the development of fintech. At the same time, the epidemic has accelerated the differentiation of the banking industry, and the impact on the competition pattern of the industry will also help Build a multi-level banking system in China.

4. Cross-border Investment and financing: An important stage for commercial banks to help RMB internationalization

Changes in external environment and domestic policy orientation pose new challenges to RMB internationalization. For commercial banks, these changes and challenges also contain new business opportunities. If they can take advantage of the current situation and carefully adjust their strategies, commercial banks will be able to expand business opportunities and make more contributions to the in-depth development of the RMB internationalization process. In the final analysis, the success of the strategy requires commercial banks to identify the needs of enterprise customers in cross-border investment and financing, reduce enterprise costs, and improve the bank-enterprise relationship. According to the current situation, commercial banks have made great achievements in the following four aspects:

4.1. Commercial banks can make full use of the offshore RMB market to help mainland enterprises solve financing problems under the new development pattern of "domestic and international double circulation" promoting each other

In the wake of COVID-19, private enterprises and small and medium-sized enterprises in the mainland face a more pronounced problem of "expensive and difficult financing". Commercial banks can carry out business innovation in the offshore market and help the mainland credit market remedy structural defects. For example, commercial banks can expand their cross-border loan borrowers from state-owned enterprises to some well-qualified private enterprises. In this way, commercial banks can reduce the capital cost of corporate customers and mitigate the financial impact of the epidemic on the private sector. Another example is that for small and medium-sized enterprises in the mainland, the form of cross-border loans may not be suitable for solving their financing problems. However, it can be considered that domestic commercial banks issue ABS with SME loans as the underlying assets in the offshore market, which can not only help reduce the financing cost of domestic SMEs, but also enrich the varieties of the offshore RMB bond market and make the connection between offshore RMB and onshore RMB closer.

4.2. During the global fight against the epidemic, China's external economic relations have also undergone some profound changes

In terms of export, China's trade volume with developed countries such as Europe, The United States and Japan fluctuates due to the impact of the epidemic, but its bilateral trade volume with belt and Road countries increases instead of decreasing in the first three quarters of 2020. It is conceivable that in the future, trade and investment exchanges between China and belt and Road countries will be even closer and deeper. At the same time, these Belt and Road countries will also need substantial investment to achieve economic recovery and sustainable development in the post-covid-19 era. In this context, commercial banks should pay full attention to business opportunities in belt and Road countries. Leveraging both onshore and offshore RMB markets help fund projects and institutions related to the Belt and Road Initiative. Commercial banks are deeply involved in both the offshore "dim sum" bond market and the onshore "panda bond" market and can use their expertise to serve belt and Road countries and projects.

4.3. Closely related to the major issues of global development, it vigorously promotes the issuance of green bonds in the "panda bond" market

Even before the emergence of COVID-19, the world's focuses on climate change and environmental protection had reached unprecedented levels. It is conceivable that the concept of green environmental protection will be fully permeated to various industries in the future. In the past few years, China has played catch-up in green finance and today and it has become one of the important pillars of global green finance. In the future, China could use the "panda bond" market to attract international green borrowers and projects. As an important participant in the "panda bond" market, commercial banks can make full use of their international customer network and encourage qualified borrowers to issue "panda bonds" in the onshore market so as to improve the status of China's bond market in the global green financial system while developing the "panda bond" market.

4.4. In business practice, commercial banks should try to apply advanced fintech to crossborder investment and financing

Actually, in recent years, some international banks have started to use blockchain technology to support syndicated loans, bond underwriting and other businesses. The use of blockchain technology in these businesses is conducive to improving the efficiency of multi-party collaborative mode of work. Cross-border RMB investment and financing business is very suitable to adopt blockchain technology because it not only involves multiple parties across the border, but also requires the deep involvement of regulators in many cases. In the future, commercial banks can apply more financial technology represented by blockchain to cross-border investment and financing business, which will not only improve business efficiency, but also play a good publicity role and even generate new business opportunities.

For these attempts, commercial banks need to work closely with regulatory authorities to make progress. By investing resources and making continuous improvements, commercial banks can expand business opportunities and break new ground in cross-border RMB investment and financing. With the precise help of commercial banks, the internationalization of RMB will go steadily and stably, rising in the world monetary system.

5. Conclusions and suggestions

5.1. Conclusion

The banking industry is entering the era of Bank 4.0 focusing on the management, promotion, transformation and realization of digital users' assets. At the time, the embodiment of fine operation management is closely with leading digital banks, which has become an important part of the digitalization of banks. Firstly, banks will strengthen fine-grained and centralized operations. Commercial banks should convert complex digital banking concepts and technologies into specific

customer maintenance, product marketing and online and offline operations, promote the transformation of process, authorization, system and risk control, build an intelligent and lean operation system, and create keen insight into customer needs, customized product and service differences, accurate push of marketing information, real-time intelligence of management decisions, finally improving the agility, flexibility and adaptability of the operational architecture. Secondly, commercial banks will promote an intelligent risk control system. Commercial banks should integrate the new algorithms, big data and new technical means brought by the wave of digitalization into risk control and management better, and improve risk assessment to create additional value. In particular, using advanced analytics and machine learning tools to integrate internal and external customer data. What's important, the closed-loop management of intelligent risk control from data collection, processing, analysis, modeling and iteration is realized through the comprehensive analysis of customers, accounts and consumption behaviors, and the global leading risk control system of intelligent anti-money laundering, real-time anti-fraud and centralized management of big data is constructed for catering for the development trend of fintech. Third, commercial banks will strengthen the building of talented personnel. In terms of talent support, the system of selection, training and flow of scientific and technological talents should be established and improved based on the strategic planning and actual needs of digital transformation, and channels for talent introduction should be broadened to train technical backbone and leading talents. By improving the talent structure and compensation incentive system, commercial banks will build a leading and dynamic digital technology team in the front, middle and background business areas so as to increase the number of fintech talents and lay a solid talent foundation for digital transformation.

5.2. Suggestions

To enable commercial banks to transform with fintech, precise positioning, fine management, digital capability and smart finance can be achieved as soon as possible. At the same time, transformation of commercial banks with fintech can promote the quality and efficiency of the banking industry, give play to the fundamental role of financial services, construct an inclusive financial ecosystem, and serve the development of the real economy.

Firstly, emerging technologies are used to tap into the long tail of customers, to expand the boundaries of financial services, and to reduce the cost of acquiring, retaining and servicing customers. With intelligent operation system, digital private banking service and intelligent investment mode can meet the diversified and personalized needs of customers, build a "finance +" service scene, innovate retail business model, and build a new ecology of inclusive finance.

Secondly, in terms of credit business, fintech should be used to further build a set of intelligent credit solutions for the whole process before, during and after loans in addition to use of huge underlying data and controlling credit risks in data cleaning and big data risk control model. In order to solve the financing problems of small, medium and micro enterprises, China's commercial banks have been committed to solving the problem of information asymmetry in recent years. The application of fintech can accelerate the process of loan business, solve the problem of "data island", obtain more abundant customer information at low cost, realize intelligent customer analysis and risk pricing, improve the efficiency of risk control, and make credit business more secure and efficient.

Despite the financial value of science and technology widely recognized by the height of the industry, many financial institutions still depends on offline business in the actual process of business, the influence of the outbreak also let many institutions to further understand the value of financial technology, and it can provide customers with the value of the financial needs of science and technology provides a clear direction in the future.

Future investment in fintech will focus on four business areas: customer service and maintenance, risk management, precise credit delivery, and post-loan management. In order to support the needs of the business field, mobile Internet technology, telecommuting system, Internet ecology, big data technology and artificial intelligence will receive key input.

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