



Conference Paper

Impact of Financial Technologies on the Banking Sector

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Abstract

The study was made to find out the impact of new financial technologies on the banking sector. The study examined Russian and foreign documents and opinions of authoritative experts in order to identify the risks that financial technologies bear for banks. Financial technologies are developing at a rapid pace and market participants need to adapt to them, so identification of risks that accompany them is an urgent problem for the banking sector and the economy as a whole.

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1. Introduction

In Russia, there is an increasing number of financial and technological innovations: crowd-hosting services, mutual lending sites, online banking, digital currencies, mobile wallets, digital data exchange platforms, high-frequency trading, e-commerce, roofeedbacks and so on. All this is just the beginning on the path that Russian banks and financial companies need to go through to obtain the main benefits and opportunities that begin the developing of financial technology segment. However, the rapid development of new financial technologies corresponds to the rapid growth of the risks that accompany them. Therefore, an important stage in the development of fintech is the identification of risks caused by their appearance.

2. Material and Theoretical Bases of Research

Today, the financial technologies industry (fintech) is rapidly developing around the world. Under the "financetech", the Basel Committee on Banking Supervision (BCBN) understands "financial innovations generated by technologies that can lead to the

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creation of new business models, applications, processes or products that will subsequently affect the financial markets, institutions or the production of financial services."

According to the Report on the development of the Fintech industry in Russia in 2017, prepared by the Fintech Observatory, about 250 organizations operating in the financial technology sector are registered in Russia at present [1]. At the same time, according to the data in September 2017, 2.3 billion rubles were invested in the fintechch industry, as well as 10.3 billion rubles for solutions in business [2].

The penetration rate of financial services in Russia's megacities reached 43%, with an average penetration rate of services in the world of 33%. The penetration rate in China is 69%, India - 52%, and in the UK - 42%. These are the results of the survey "The penetration of financial and technological services in Russia and the world", conducted by Ernst & Young in June 2017 [3].

Proceeding from the foregoing, it can be concluded that fintech is rapidly penetrating all spheres of economic relations, which entails the emergence of new risks. According to the FATF recommendation No. 15 "... it is necessary to identify and assess the risks... that may arise in connection with the development of new products and new business practices..." [4]. In addition, the FATF recommends that a risk-based approach has to be used (recommendation 1) so that risk mitigation measures are consistent with the identified risks. Therefore, the risks that financial technologies bear are considered.

The most influential may be the risks that affect the economic aspect. After all, rapid development of fintech leads to a reduction in barriers to entry the financial services market and stimulates the emergence of new business projects that can exist autonomously from banks, providing a certain narrow segment of services at an affordable price. This is a negative factor for banking sector and for banks to maintain a level of competitiveness, it is necessary to change business models rapidly, and this is rather time consuming and expensive process. If measures that support a high level of competitiveness are not implemented, existing financial institutions will lose a significant part of their market share or profits, as new participants will be able to make better use of innovations and provide less expensive services that better meet the expectations of customers. According to Steve Case (founder of AOL), the real danger for the banking sector comes from actively developing fintech companies that offer new methods for conducting key banking transactions. For example, such financial technology as P2P-lending can significantly affect the banking sector, since only individuals without intermediaries, usually banks or credit institutions, participate



in the process of issuing a loan or loans. At the same time, the process of obtaining a loan is more convenient and quick, which has a weighty advantage over banks.

To counteract this risk, banks need to have modern IT; good risk management, effective internal control, as well as monitor the appearance of new technologies and apply them in their activities.

To date, the legislative framework, which determines and regulates all aspects of the activities of fintech companies, is not enough. Because of this level, there are certain risks. In the event that fintech companies occupy a certain share of the banking services market, this will reduce the influence of the Central Bank, as a rule, on the activity of this market and, as a result, on the economy as a whole. This risk can be reduced through the introduction of various licenses, quotas, registrations for the provision of services for financial companies, while these measures should be out-of-date, as this may hinder the development of innovations. A good example is the People's Bank of China, which established a committee to study the influence of fintech on monetary policy and financial markets [5]. The new committee will conduct an indepth study of the impact of financial and technological changes on monetary policy, financial markets and their stability and, as a result, develop an effective regulatory mechanism.

Development of fintech influences not only the economic, but also on the social sphere. One of the most obvious activities is the risk associated with the reduction in the number of jobs due to the use of artificial intelligence technologies. All professions associated with routine work - secretaries, contact center staff, etc. can be largely replaced by clever algorithms. At the same time, one should also take into account the fact that with the development of technologies, new, more qualified personnel is needed, but that is not enough. To reduce this risk, it is necessary, at the state level, to develop a policy of improving the skills of citizens and orient young people to receive education in the IT field.

The main risk that arises from the development of the fintech, affects the legal, social and economic spheres is cybercriminal. The increased interconnection between market participants increases security risks. Dependence on cloud computing and other new technologies that increases interdependence, which could potentially make the banking system more vulnerable to cyber threats and expose large amounts of confidential data to potential violations. According to a poll conducted by RosBusinessConsulting (RBC), bankers consider the security risk. According to Aleksey Golenishchev, director of e-business monitoring in Alfa Bank, fraudulent schemes are developing with the advent of more sophisticated technologies, so banks will have to invest more



for protection systems, from the corporate network structure to produce safety [6]. To minimize the risk, the Central Bank created the Center for the Development of Financial Technologies and the Center for Monitoring and Preventing Cyber-fraud and Cyber threats.

3. Results

Summarizing facts mentioned above, it should be noted that the development of financial technologies accompanies the emergence of risks. These risks can be divided into economic, social and legal. At the same time, the emergence of new financial technologies is an incentive for the development and improvement of the banking sector.

Elvira Nabiullina, Chairman of the Bank of Russia, noted within the framework of the 26th International Financial Congress "Finance for Development" (July 13-14, 2017) the positive impact of the financial and technological revolution that is currently taking place. In her opinion, fintech allows seriously reduce costs, increase the penetration of financial services, as well as improve their quality and increase the stability of various sectors of financial market to various "shocks" [7]. Therefore, one of the priority areas of activity for the coming years, the Bank of Russia calls the development of the fintech industry. That is, the Central Bank moves on the principle of incentive regulation, providing support for new technologies, giving preference to technologies with greater protection from cyberrisks. At the same time, special attention is paid to cybersecurity as a key component of the stable operation of the entire industry. To date, it is planned to create information security standards for financial organizations, as well as active work to identify threats and assist the market in selecting effective methods for the curbing of cyber threats. Now the Bank of Russia is building a very flexible policy in relation to the domestic financial technology industry, first observing the principles of work, and only then introducing regulation commensurate with risks.

According to Andrei Kostin, head of the VTB Group, finteh is a big threat to banking sector. "Competition in the banking sector has shifted from the plane of big and small banks in the direction of competition with fintech. The one who has more capital will not win and survive, but the one who will be able to reorganize into a new model of high-tech banking business "[8]. Therefore, in his opinion, it is important to unite banks in order to reduce the costs of digital transformation of the banking sector.

The Basel Committee on Banking Supervision (BCBN), in a consultative document Sound Practices: Implications of fintech developments for banks and bank supervisors,



reviews key risks and opportunities for banks and finteh companies in the current situation [9]. The document says that it is increasingly difficult for banks to compete with finteh companies, and the main risks for banks arise precisely because of this competition.

In an interview with RosBusinessConsulting, founder and partner of UsabilityLab, Dmitry Satin, says that banks have two survival strategies: either to buy up readymade fixture start-ups, or to grow such start-ups themselves [6].

4. Conclusion

The study was conducted on the basis of various articles published in well-known journals, a review of Russian and international documents related to the topic of the study.

The development of financial technologies opens new opportunities for the banking sector. They make the service more accessible and convenient for customers. At the same time, innovations bear certain risks.

Most of the fintech services are provided by companies independent from banks, i.e. banks have competitors that have certain advantages. Against the backdrop of increasing competition from financial projects, banks have to change their business models, which becomes more and more difficult over the time. There are also certain risks associated with the fact that the mechanisms for regulating the fintech are developing at a slower pace than the fintech itself. This, on the one hand, is a positive factor, as the regulator does not hinder the development of innovations, but, on the other hand, the lack of an adequate regulator leads to non-compliance with laws and the appearance of fraudulent schemes.

To defend their market share, banks need to master and apply new financial technologies, because it all together can lead to better quality of customer service and, consequently, financial condition of banks and the entire banking sector.

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