**Building of Multilateral Cooperation of BRICS Countries in the Field of Financial Technologies**

**Albekov A.1, Lakhno Y.2**

1*Rostov State University of Economics, Rector of Rostov State University of Economics, Doctor of Science, Professor, Honored Worker of Science of the Russian Federation, 344002,* *B. Sadovaya str., 69, Rostov on Don, Russia*

2*Rostov State University of Economics, Associate Professor, the Department of financial monitoring and financial markets, 344002,* *B. Sadovaya str., 69, Rostov on Don, Russia*

Albekov A.: ORCiD 0000-0001-9463-5434

Lakhno Y.: ORCiD 0000-0002-7482-944X

Corresponding Author: Lakhno Y., E-mail: julia1379@yandex.ru

**Abstract:** New financial technologies enable to meet the needs of customers faster and cheaper in comparison with the traditional ones. New financial technologies have disadvantages along with the advantages, their consequences are still difficult to predict. The authors propose a mechanism of cooperation of the BRICS countries in the field of financial technology as a way of a joint development of measures which will facilitate full realization of all opportunities of using financial technology to ensure sustainable development of the BRICS countries, and at the same time preventing potential threats, as well as coping with potential negative consequences which arise from the use of new financial technologies. This mechanism may be used to implement the strategy of economic partnership of the BRICS countries.

**Keywords**: Financial technologies, controller, the BRICS, sustainable development

**Introduction**

New financial technologies (FinTech) is a part of a digital revolution which covers big data and artificial intelligence allow consumers making purchases easily, doing money transfers abroad with small commissions, small businesses can obtain access to credit within some minutes via profiling based on big data, and individual investors can individually construct their investment portfolios. These are just some examples of new financial technologies using by participants of economic relations.

Despite the significant benefits of financial technologies, the global professional and scientific community is concerned about of economic insecurity. Changes in the economic landscape influenced by financial technologies are irreversible; today the question on the adoption of new financial technologies or their rejection is not raised. Today we have to understand how to organize the effective use of financial technologies to ensure sustainable development of economic systems.

According to the Ernst&Young`s survey [1], China, India, Russia and Brazil take the leading positions in terms of the level of penetration of financial technologies in megacities of the world. The BRICS countries especially need to solve this problem.

In this paper, we offer solution of this problem for the BRICS as countries with fundamentally different structures of economic systems, but united to respond to global challenges. We investigated the current areas of cooperation of the BRICS countries and global practices of using financial technologies. Our results describe a mechanism for the development of cooperation of the BRICS countries in the field of financial technologies.

**Materials and Methods**

We used open data of the World Economic Forum and summits of the BRICS, reports of international analytical companies. The authors used the methodology of scientific research such as analysis, synthesis, deduction to formulate hypotheses and verify them.

One of the most recognizable new financial technologies is a cryptocurrency.

The cryptocurrency allows raising capital in startups, receiving income from the growth of a market value, it is also free from the monetary policy of definite countries, and its pricing is subject to supply and demand.

The cryptocurrency has advantages, which are simultaneously considered to be its drawbacks. In the absence of regulation, this element of the financial system came to be initially used in global financial transactions for drug trafficking and laundering of criminal proceeds. The cryptocurrency is the subject of attackers’ thefts both from electronic wallets and because of creation of substitute sites of the issuers of tokens.

Many experts believe that the incredible price of the most capitalized cryptocurrency is unjustified and compare it with a pyramid scheme, because "the main prize for those who are investing money and efforts now will consist of the investment of money and efforts of those who will come tomorrow, but the tomorrow's will hope that their investments will be rewarded by money and efforts of those who will come day after tomorrow" [2].

Reports of international organizations let estimate the volume of FinTech services using growth. At the same time the scale of new challenges traditional financial institutes face are becoming noticeable.

Based on data from Ernst&Young and the World Economic Forum, we have compared the category of FinTech services and potential areas of uncertainty for the traditional financial institutions (tab. 1).

Table 1. New financial technologies and the potential threat of development of traditional financial institutions

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| --- | --- | --- |
| Categorise of financial technologies | Services | New potential threats arising as a result of the financial technologies use |
| Money transfers and payments online | Foreign exchange transactions online;Cryptocurrency payments;Money transfers abroad;Mobile payments | Payments continue increasingly migrate away from cash and become less visible to customers as consumers shift purchases to online and mobile channels. Traditional payments are experiencing intense pressure and a challenge in competition environment. Regional distinctions between payments are growing, as both customer’s behavior and regulatory environments diverge.Traditional bank distribution models and economics are at the risk of being deeply disrupted by the drive towards platform models of banking. Banks no longer define customer expectations of the banking experience; instead, FinTech and large technology companies set the standard. |
| Savings and investments | Investments in equity crowdfunding platforms Investment consulting and investment onlineStock transaction online | Crowdfunding platforms growth driven by strong demand from the side of both investors and entrepreneurs. The quality of regulation has become a defining factor in the success of crowdfunding capital. |
| Lending | Fundraising using P2P platformsThe attraction of short-term loans online | New adjudication techniques have significantly expanded access to credit for underbanked, "thin‐file"and subprime customers.Individual and small‐business borrowers expect their lender to deliver the seamless digital originationand rapid adjudication pioneered by leading FinTech.Funding economics put marketplace lenders at a cost disadvantage compared to traditional banks,raising questions about the model's sustainability.Non‐financial platforms are emerging as an important source of underwriting data and a point of distribution for credit. |
| Insurance  | Car insurance using telematics (computer communication), which allows tracking the behavior of the driver Comparison site premiumsHealth insurance using devices that track physical activity of a user | Increased modularity in the insurance value chain is enabling new combinations of players and threatening the position of incumbents. Usage‐based, on‐demand and object‐specific insurance products are emerging in response to shifting customer lifestyles. Life insurers face pressure to reinvent their product strategies to meet the needs of their next generation of customers. Connected devices are proliferating, but insurers have failed to convince customers that connected insurance serves their interests. Insurers are challenged by the rise of "insurtechs" and a structural transformation of their customer base, forcing them to adopt to new technologies more quickly. The development of products to insure emerging risks is becoming critical to carrier profitability, particularly as margins in traditional products erode.Life insurers face pressure to reinvent their product strategies to meet the needs of their next generation of customers. Connected devices are proliferating, but insurers have failed to convince customers that connected insurance serves their interests. Insurers are challenged by the rise of "insurtechs" and a structural transformation of their customer base, forcing them to adopt to new technologies more quickly. The development of products to insure emerging risks is becoming critical to carrier profitability, particularly as margins in traditional products erode. |

Compiled by the authors according to the Penetration of financial technology services in the cities of Russia and in the world http://www.ey.com/Publication/vwLUAssets/EY-fintech-index-russia-rus-2017/%24FILE/EY-fintech-index-russia-rus-2017.pdf and Beyond FINTECH: from a pragmatic point of view, the destructive potential in the field of financial services report of the world economic forum on financial technology: https://www.weforum.org/reports/beyond-fintech-a-pragmatic-assessment-of-disruptive-potential-in-financial-services

Traditional financial institutions face a wide range of new financial services and a great variety of new challenges. The question is whether the BRICS countries are able to withstand the new global challenges of the use of new financial technologies.

To answer this question let us analyze the potential of the Alliance development and the existing areas of cooperation.

Economic potential of the BRIC countries – Brazil, Russia, India and China has been discussed since 2001, after the report on the development prospects of these economies. Today, the activity of the BRICS (South Africa became a member of the bloc in 2010) is estimated in two ways: supporters of the Alliance see the potential in the growth of influence on the situation in the world relations; critics have noted the lack of collaborative activities and their political orientation. [3,4]

In our opinion, the following facts reconfirm the potential of development of the Alliance: 1) "over the past 10 years, the share of the BRICS in world GDP has increased from 12 to 23% and from 11 to 16% in the world trade." [5]; 2) the similarity of the "factors hindering the development of the BRICS countries — inadequate infrastructure, corruption, bureaucracy, problems with the availability of financial resources, inflation, tax rate" is preserved [6,7]; 3) expanding range of areas of cooperation, according to the annual summits of the BRICS countries (tab 2).

Table 2. Areas of cooperation of the BRICS countries

|  |  |
| --- | --- |
| Summit | New areas of cooperation |
| The 9th BRICS summit, September 9, 2017. | Adoption of the development strategy of the New Development Bank, discussion of the issues on global economic governance, international and regional conflicts, national security. |
| The 8th BRICS summit, October 16, 2016.  | Joint efforts to combat international terrorism, increased investments in infrastructure and trade cooperation between BRICS countries and cooperation in the field of science and innovations, mobility of the population. |
| The 7th BRICS summit, July 9, 2015. | Approval of the strategy for the BRICS economic partnership. The decision on the establishment of the New Development Bank and a contingent reserve arrangement, proposals for the reform of international financial institutions, particularly of the IMF. |
| The 6th BRICS Summit: July 15, 2014. | Mutual recognition of the Higher Education Degrees and Diplomas;Labor and Employment, Social Security, Social Inclusion Public Policies;Foreign Policy Planning Dialogue;Insurance and reinsurance;Seminar of Experts on E-commerce. |
| The 5th BRICS Summit, March 11, 2013. | The BRICS Public Diplomacy Forum;The BRICS Anti-Corruption Cooperation;The BRICS State Owned Companies / State Owned Enterprises;National Agencies Responsible for Drug Control;The BRICS virtual secretariat;The BRICS Youth Policy Dialogue;Tourism;Energy;Sports and Mega Sporting Events. |
| The 4th BRICS Summit: Delhi DeclarationNew Delhi, March 29, 2012 | Multilateral energy cooperation within the BRICS framework.A general academic evaluation and future long-term strategy for the BRICS.The BRICS Youth Policy Dialogue.Cooperation in Population related issues. |
| Sanya, Hainan, China, April 14, 2011 | Encourage cooperation in sports.Explore the feasibility to cooperate in the field of green economy.Hold a meeting of Senior Officials for discussing ways of promoting scientific, technological and innovation cooperation in BRICS format, including by establishment a working group on cooperation in pharmaceutical industry. Establish, at UNESCO, a "BRICS-UNESCO GROUP", aiming at developing common strategies within the mandate of the Organization. |

Compiled by the author according to http://www.brics.utoronto.ca/docs/140715-leaders.html http://www.brics.utoronto.ca/docs/130327-statement.htm http://www.brics.utoronto.ca/docs/120329-delhi-declaration.html http://www.brics.utoronto.ca/docs/110414-leaders.html, http://www.brics.utoronto.ca/docs/090616-food-security.html, http://www.brics.utoronto.ca/docs/150709-website-en.html, https://www.brics2017.org/English/Documents/Summit/201709/t20170908\_2021.html

The established practice of interaction between representatives of the BRICS countries is presented in this section. We can distinguish four levels of interaction: 1) the annual meeting of the BRICS leaders within the specialized summits and on the margins of the summits of the "group of twenty"; 2) meetings of Ministers and representatives of the five countries at the UN in New York, in the framework of international organizations in Geneva and Vienna and at UNESCO in Paris; 3) the BRICS interaction with third parties: business, a civil society, trade unions, an expert community, and the youth; 4) meetings of working and expert groups on a wide range of issues. [8]

For example, to develop and strengthen economic links and investment cooperation between the BRICS countries, the state financial institutions of development and export support of the BRICS countries signed a Memorandum on cooperation in 2010, thus creating a mechanism for the BRICS interbank cooperation. The Memorandum aims mainly to promote a comprehensive, long-term interbank cooperation between partners in order to strengthen trade and economic relations between the member-states of the BRICS, and to support socially significant regional projects.

The main objectives of cooperation are the creation of the scheme of providing financial and banking services for future investment projects, which could benefit the economic development of the BRICS countries. The participants of the interbank cooperation mechanism of the BRICS are the Brazilian Development Bank (BNDES), State Corporation "Bank for Development and Foreign Economic Affairs (Vnesheconombank)" (the Russian Federation), Export-Import Bank of India, the Chinese Corporation Development Bank, and the Development Bank of South Africa (DBSA). Based on the agreements signed in the framework of the BRICS interbank cooperation, the banks-members have taken steps to develop a multilateral financial cooperation in the BRICS countries and created the basic mechanisms for calculating and financing investment projects in a local currency. [9]

Thus, we can conclude that there have been successful steps in building multilateral cooperation of the BRICS countries on a wide range of issues.

Taking into account international practices of development cooperation [10] we distinguish the following principles of building cooperation between the BRICS states in the area of financial technologies: transparency (availability and transparency of information to all participants of multilateral cooperation), equality (equal opportunities for all participants, regardless of the level of development), responsibility (acceptance of consequences of the decisions made), innovation (a focus on the best practices), balance (a combination of incentive and restrictive measures), uniformity (adoption and implementation of the normative-legal provision of financial technologies).

The Memorandum of cooperation in the field of financial technologies, the system operational data exchange, and a cross-country exchange of practices in monitoring of cybersecurity can be used as tools embedded in multilateral cooperation of the BRICS countries in the field of financial technologies.

The existing types of interactions such as meetings of leaders, Ministers, working groups have already shown their effectiveness. In the context of new global challenges, regulators need to work quickly, so far as possible, to keep up in the rapidly changing financial environment. However, their aim should not only conclude in the protection against the risks of FinTech; they should also seek to guide it, so it could fully realize his potential. For example, FinTech needs to be consistent with the objectives of sustainable development – efforts that require new standards, market innovation and collaboration. Countries around the world must integrate digital funding in their plans for financing sustainable development. In connection with the specifics of this cooperation, we offer an active inclusion of members of regulators. [11]

The newly created institutions of the New Development Bank of the BRICS and Asian Infrastructure Investment Bank could be important members of a mechanism of cooperation of the BRICS in the financial technology field, as a distinctive feature of the development of financial technologies in Russia and China, compared to the USA and the EU, is the active participation of banks [12]. It also follows that the working meetings of representatives of the most dynamic FinTech companies are necessary.

Thus, the structural and functional elements of the mechanism of cooperation of the BRICS countries in the financial technology field are principles of interaction building; collaboration tools; ways of interaction.

**Results and Discussions**

Using new financial technologies, the participants of economic relations face new global challenges and their consequences are difficult to predict. The authors propose a mechanism of cooperation of the BRICS countries in the financial technology environment as a way of collaborative development of measures, conducive to the full realization of all opportunities of using financial technology to ensure sustainable development of the BRICS countries and prevent potential threats, as well as coping with possible negative consequences arising from the use of new financial technologies. The structural and functional elements of the mechanism of cooperation of the BRICS countries in the financial technology field are principles of interaction; collaboration tools; ways of interaction.

**Conclusion**

Today, financial institutions increasingly tend to resemble large technological firms, and depend on technology investments; the financial regionalization becomes more obvious: differentiating priorities of clients' needs of financial services in different regions of the world, an increasing role of studying algorithms in the functioning of economic participants. [13]

The impact of changes is difficult to predict. The operative consolidation of efforts of regulators and participants of financial markets of the BRICS is needed in response to new global challenges.

This study can be further supplemented by detailed recommendations for the new categories of financial services taking into account the peculiarities of each of the BRICS countries.

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