Focus on FinTech: Russian market growth prospects
Contents

Research methodology 1
Key findings 2
Development of promising segments of the Russian FinTech market 4
What is a FinTech ecosystem? 8
Drivers of the FinTech market's development 10
Key initiatives aimed at supporting the FinTech ecosystem in Russia 14
What has been done? 16
Contact information 21
This overview contains an analysis of the priority initiatives aimed at developing the FinTech ecosystem in Russia, identified from researching the global and Russian markets for innovative financial technologies and services (hereinafter – the Research). In addition, the overview includes an analysis of changes in those initiatives in the second half of 2017. The research was conducted by EY at the request of the Agency for Strategic Initiatives (the ASI).

For research purposes, the market for financial technologies, products and services (the FinTech market) is defined as a fast-growing market segment where both existing and new technologies help improve business processes, products and services in the financial sector.

The research included two stages (the conclusions were announced in July 2017):

- A desk-top study based on the analysis of information from public sources (including industry portals, articles, reviews, and data from state statistics bodies), EY publications on financial technologies, as well as recognized studies of specialized research houses
- A validation of the findings with global and Russian industry experts. During the second stage of the research, we held 30 interviews with key international FinTech experts, officials from major Russian financial institutions, leaders in promising FinTech segments, and the FinTech Association (AFT) members. On top of that, we conducted an offline survey among experts and officials from relevant financial market associations, with over 70 questionnaires collected.

In addition, as part of the research, we built growth forecasts for selected FinTech market segments up to 2018, 2020, 2025 and 2035. The forecasts for 2035 are conservative. They were built on the basis of expert opinions on the potential development of current technologies and products considering the macroeconomic situation, and do not take into account the development of currently non-existing technologies and products.
Key findings

The purpose of this overview is to analyze what has been done to spur the development of financial technologies in the second half of 2017. In July 2017, EY carried out research on the global and Russian markets for innovative financial technologies and services at the request of the Agency for Strategic Initiatives.

The research identified the four most promising segments to be included in the FinNet roadmap: payments and remittances, financing, insurance (InsurTech) and wealth management. These are the segments in which innovative products and services will be developed in the first place in Russia, since they will give rise to the most significant transformation of traditional financial services based on innovative technologies.

The development of the above segments in Russia depends on the creation and effective operation of the FinTech ecosystem. This can be achieved by means of developing technologies and increasing demand for FinTech services and products through the adoption of a complex of measures aimed at providing capital for FinTech companies and improving the regulatory environment and talent pipeline. The research identified key initiatives to be implemented to facilitate the development of the FinTech ecosystem and FinTech segments in Russia.

A number of measures were taken in the second half of 2017 to support the majority of the key initiatives identified during the research. The Bank of Russia, the AFT and its members supporting the FinTech initiatives worked together to redraft the regulatory environment to remove constraints that hinder the development of financial technologies in Russia. They also launched a number of country-wide infrastructure projects. In addition, the banks participating in the AFT and independent players implemented numerous pilot FinTech projects during the period.

Forecast growth of promising FinTech segments in Russia to 2035:

**Payments and remittances**
- 96.3% of all transactions in Russia will be performed using innovative services for making payments and remittances.

**Insurance (InsurTech)**
- 9.8% of all insurance premiums will be paid to FinTech service operators to maintain insurance.

**Financing**
- 36.7% of financing will be provided using innovative financing services.

**Wealth management**
- 46.1% of assets will be managed using innovative services for investments and capital management.

To unlock the innovative potential in these segments, short-term priorities for the development of the FinTech ecosystem were determined to ensure the effective operation of all its components.

The key components of the FinTech ecosystem are as follows:

- Technology
- Demand
- Regulation
- Talent
- Capital
Development of promising segments of the Russian FinTech market

The research identified four promising FinTech segments to be developed to create competitive advantages for Russia around the world.

In 2011–2016, payments and remittances represented a key segment in which FinTech innovations were implemented globally. According to the experts’ survey, in 2016 the total volume of payments and remittances made using innovative financial technologies was 1% of the total global volume of non-cash transactions (or USD 9 trillion). At the current stage of the segment’s development, most of the global innovative services are focused on B2C offerings. At the same time, the B2B segment of the e-commerce market is expected to grow in the medium-term, which will create demand from companies for instant and low-cost payment solutions.

According to the research, in 2016 the global volume of electronic payments was approximately USD 9 trillion. Russia accounted for 1% of the global market, with the annual growth rate for the Russian market being 20% compared with the global annual growth rate of 12%.

In 2016, the payment and remittance segment of the Russian market for innovative financial technologies amounted to approximately USD 87 billion. This segment will continue to grow at an average of 31% per year to reach USD 14.9 trillion by 2035. The level of penetration of financial technologies in the payment and remittance segment in Russia will reach 96.3% by 2035.

The experts interviewed during the research identified the following key obstacles to the development of FinTech innovations in the payment and remittance segment in Russia:

- The lack of developed infrastructure that allows making non-cash payments outside large cities
- The fragmentation of existing fast payment systems and the significant share of the unserved population which faces the inconvenience of making remittances between banks, with high fees and limits.

**Global preconditions for the development of the FinTech industry according to the expert survey**

- Growing penetration of mobile devices, including smartphones, tablets, and portable gadgets: 72%
- Increase in cross-border mobility of the population: 67%
- Growth due to coverage of the unbanked population: 44%

“The penetration of innovation in everyday life of people will contribute to the growth of transactional activity of the population, which will ultimately lead to “seamlessness” and “commoditization” of payments.”

Opinion of an industry expert

<table>
<thead>
<tr>
<th>Years</th>
<th>2020</th>
<th>2025</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD billion</td>
<td>641</td>
<td>8,837</td>
<td>14,875</td>
</tr>
</tbody>
</table>

Source: expert survey, EY analysis, Statista, BCG.

Focus on FinTech: Russian market growth prospect
Focus o FinTech: Russian market growth prospect

Forecast volume of financing to be provided using FinTech services in Russia, USD billion

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2025</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.8</td>
<td>84.3</td>
<td>178.6</td>
</tr>
</tbody>
</table>

Source: expert survey, EY analysis, Cambridge Centre for Alternative Finance.

Growing internet penetration and the rapid implementation of technological innovations in the financial sector give rise to alternative online instruments used to provide financing. According to the Cambridge Centre for Alternative Finance, in 2015 the volume of the global alternative online financing market reached USD 145.6 billion. In 2013-2015, it increased at an average of 252% per year. This increase was mainly secured by P2P-lending (55.3% of the total market turnover).

According to the research, the amount of financing raised using alternative online instruments worldwide was USD 176.5 billion in 2016. On the other hand, the alternative online financing market in Russia is in its infancy. Its volume was approximately USD 0.1 billion in 2016. This segment will continue to grow in Russia, at an average of 51.2% per year, to reach USD 178.6 billion by 2035. The level of penetration of financial technologies in the financing segment in Russia will reach 36.7% by 2035.

“FinTech innovations allow us to obtain more information about customers. Knowledge of the behavior and transactions of users helps improve the risk scoring process and meet financing needs.”

Opinion of an industry expert

The experts pointed out technological limits of the existing automated scoring models, together with regulatory constraints, as the key obstacles to the development of this segment.
The insurance market will also change in the near future due to increasingly active penetration of innovative financial technologies. According to CB Insights, in 2011–2016 the global InsurTech market attracted investments of USD 6 billion (523 transactions in total). Furthermore, CB Insights noted that 80% of all transactions were performed by venture funds.

At the current stage of the market’s development, “smart” insurance is the most significant and fastest growing InsurTech segment. In fact, the insurance model remains the same, with the changes affecting the approach to determining service fees, whereby calculations that are based on aggregated data are increasingly giving way to a deeper analysis of personal data collected using telematics. According to experts’ estimates, the P2P insurance market will be another promising InsurTech area.

“Due to the expansion of innovative technologies, insurance will penetrate many economic sectors where other forms of risk mitigation prevail at the moment, such as loans, pledges, or prepayment.”

Opinion of an industry expert

The research suggests that the global volume of the InsurTech market was approximately USD 1.1 billion in 2016. At the same time, the Russian InsurTech market is at its initial stage and does not exceed 1% of the Russian insurance market volume, which amounted to approximately USD 17.7 billion in 2016. In Russia, the FinTech insurance segment will continue to grow at an average of 19.2% per year to reach USD 4.9 billion by 2035.

The experts believe that active penetration of innovative financial technologies in the Russian insurance market is hampered due to the following reasons:

- Low level of insurance culture
- Slow improvement of the regulatory and legislative environment and, as a result, a lag in implementation of technologies
- A lack of unified standards for improving the effectiveness of online channels used by insurance companies and preventing fraud.
Financial technologies have a significant impact on the private wealth management market and work of financial advisers. The penetration of financial technologies in this segment leads to the automation of asset allocation and capital management processes, to the creation of new investment markets, the emergence of new products and services for traditionally unprofitable customers, and to an increase in the effectiveness of quantitative risk assessments.

According to CB Insights, in 2012–2015 investments in this segment grew at an average of 98% per year, but they declined in 2016. At the same time, the number of transactions continued to increase and hit a record high in 2016 (74 transactions compared with 15 transactions in 2012). Above all, innovations in the wealth management segment are aimed at satisfying the needs of retail clients (including robo-advising, personal finance management applications, and social trading). They allow financial institutions (including traditional ones) to expand their target audience. The robotization of the process of creating an investment profile and making investment decisions leads to a significant reduction in costs, while making it possible to improve the accuracy of analysis and eliminate human errors.

“The ability to provide traditional services with lower fees through innovation, combined with brand recognition and the low cost of customer acquisition, opens up great prospects for traditional market participants in the wealth management segment.”

Opinion of an industry expert

At the moment, the robo-advising segment in Russia, like other segments of innovative financial technologies, is in its infancy. In 2016, the Russian market volume was only USD 0.01 billion, despite the global robo-advising market totaling USD 140 billion in assets under management (according to Morgan Stanley). In Russia, this segment will continue to grow at an average of 63.2% per year to reach USD 42.6 billion by 2035 (with the share of penetration of financial technologies being 46.1%).

The experts interviewed during the research identified the following key obstacles to the development of innovations in the FinTech wealth management segment:

- The high cost of customer acquisition, combined with low fees of new robo-advising companies, contributes to the low penetration of robo-platforms in the countries with an underdeveloped market for retail investment services
- Uncertainty concerning the behavior of robo-advisors during severe economic fluctuations
- Most global wealth is allocated to Generation X or preceding generations which prefer traditional methods of wealth management.
What is a FinTech ecosystem?

The development of the FinTech market and the speed at which innovative products or services are created depend on the development and effective operation of the ecosystem, which is a set of interrelated factors, such as demand, technology, access to capital, talent and regulation.

The factors driving demand and determining which technologies should be applied are key to the development of the FinTech industry. Changing consumer preferences stimulate technological advancement, with technological progress being a driver of changes in consumer preferences. However, the industry development also depends on companies’ access to capital and talent, as well as on the effectiveness of regulation.

### Demand

Demand for innovative financial technologies and products in the FinTech industry is driven by the following four customer categories:

- **The consumer segment (B2C)** consists of end-consumers of FinTech services and products and is the largest in terms of both demand and penetration of financial technologies. Millennials, the unbanked population, and digital immigrants are groups that have high potential demand in this segment.

- **The corporate sector** includes corporations from different sectors as well as small and medium-sized enterprises, which create growing demand for FinTech business solutions.

- **The financial sector** comprises banks, credit unions and other traditional financial institutions that are interested in improving their services or increasing their operating efficiency.

- **The public sector** includes the government, national banks, national currency exchanges or other government bodies that are interested in developing the FinTech market.

### Technology

Changes in consumer preferences affect the implementation of innovative technologies which will facilitate the transformation of financial services in the future. At the moment, we can distinguish the following groups of innovative technologies:

- **Cognitive technologies** that enable work to be carried out without human involvement and with a focus on automating the processes that cannot be described using precise instructions. These technologies include artificial intelligence, big data analytics, the Internet of Things, and virtual and augmented reality.

- **Distributed computing** involves distributed processing and storage of data, and is aimed at solving the problems of the exponential growth of data volume in the digital world. This group includes cloud computing and distributed ledger technologies.

- **Cybersecurity technologies** have become especially relevant in the era of the digital economy. They enhance safety through remote / biometric identification and tokenization.

Taking into account the active development of API, this can also be included in the list of technical components of the FinTech ecosystem. The API is used to obtain access to banking information and infrastructure.
Talent

Access to human capital is required to ensure the effective operation of the FinTech ecosystem. The drivers of human capital development are as follows:

- Talent availability, which is estimated by the total number of professionals engaged in the FinTech market and by the number of potential employees with key competencies in such areas as technology, finance and entrepreneurship.
- The talent pipeline, which implies the provision of professionals with key competencies that enable them to work in the FinTech industry and is associated with the creation of an attractive education system, as well as with the adoption of a favorable immigration policy.

Regulation

The experts believe that government authorities should take a balanced approach when regulating the FinTech industry. On the one hand, the government’s objective is to create an environment that would be favorable for the development of innovations, but on the other hand, it should be responsible for controlling and mitigating the risks associated with the operation of the FinTech market.

The development of the FinTech industry requires the implementation of the following three main instruments of government regulation:

- A regulatory regime supporting market participants and new business models.
- Government programs and initiatives aimed at lowering the barriers existing in the industry, promoting competition and supporting FinTech business in the local market.
- Taxation policy, providing tax support measures for investors and corporations.

Capital

Access to financing at all stages is critical for the successful development and growth of FinTech companies. In addition, investments increase liquidity, which attracts a growing number of investors.

The FinTech ecosystem is considered to be effective when access to the following three key types of capital is provided:

- **Seed capital** – investments are made at the earliest project stage. Generally, this type of financing is provided to young startups from business angels or via incubators and acceleration programs.
- **Growth capital** – investments are made starting from the early development stage and up to the moment when a FinTech company matures. This type of financing is provided by venture funds or corporate venture units.
- **Listed capital** – financing is raised through IPOs of mature FinTech companies.
According to the expert survey, Internet penetration growth determining the range of potential users of financial services, technological advancement as well as changes in consumer preferences, which promote technological transformation of financial products, are the main drivers of the FinTech market’s development. At the same time, the above drivers entail more complex changes which serve as the basis for financial innovation.

1. Low level of satisfaction with traditional banking services or their unavailability

Growing demand for innovative financial products and services, in particular, from the population which is not covered by banking services or dissatisfied with the quality of the services provided by traditional financial institutions, as well as from small and medium-sized enterprises (SMEs), is one of the most significant factors of the FinTech market’s development.

The unbanked population

According to the World Bank’s Global Findex research, only 62% of the world’s adult population has an account in a financial institution, while approximately 2 billion adults are unbanked. At the same time, this ratio is better in Russia – 67% of citizens had a bank account in 2014.

The population of countries with limited access to banking services creates a high potential demand for electronic financial services, primarily payments, remittances and lending, due to:

- A lack of sufficient banking infrastructure, which would require a considerable amount of time and investment to be created
- A low level of commitment to traditional banking services on the part of consumers and, accordingly, their willingness to use innovative FinTech solutions.

Taking into account forecast high penetration of the Internet and cheap smartphones, as well as the large population of developing countries, mobile technologies could provide users with access to simple and convenient financial services.

Consumers who are dissatisfied with the current level of service by traditional banking institutions

Consumers of traditional banking services, who are dissatisfied with their speed, quality or cost, are another category driving demand for innovative financial solutions.

According to a survey conducted by Sopra Banking Software among 5,000 bank customers from six European countries, 78% of the respondents believe that it is important to introduce innovations in banking services, 58% would like to switch to a bank offering the most advanced technologies, and 46% are ready to use the services of non-traditional banks.
Therefore, customers who are dissatisfied with their current level of traditional financial services not only create demand for services provided by FinTech companies but also stimulate banks to invest in their in-house development of solutions that would satisfy the needs of the customers, or to create partnerships with FinTech service providers.

Small and medium-sized enterprises
SMEs need to use simple financial solutions and save on servicing costs. In addition, this category of customers does not have access to banking services and debt capital in many developing countries due to its low attractiveness for traditional financial institutions.

The promotion of entrepreneurship and a rapid increase in the number of SMEs (92.7 million such companies were registered around the world in 2016, which is 55% more than in 2011 according to the IMF) provides excellent opportunities for the FinTech service industry. In particular, SMEs will create demand for payment services, integrated business management solutions, and lending services.

It should be noted that due to the developed banking infrastructure and high level of commitment of the population to traditional banks, the highest demand for FinTech services in Russia is expected to come from millennials who pay special attention to the technological component of services, as well as from SMEs that are not covered by banking services.

2. Increase in the number of social network users
The growing popularity of social networks and instant messengers (Facebook, Instagram, WhatsApp, WeChat, etc.) actively contributes to the emergence and development of new financial technologies and services:

• FinTech companies use these communication channels covering a large and rapidly growing audience to offer services that are based on the exchange of information between users: for example, crowdfunding, P2P payments and financing. On top of that, social networks have become increasingly engaged in the development of their own FinTech products
• Social networks and instant messengers are an effective channel for promoting FinTech services
• Social networks accumulate a significant volume of information about their users, which is analyzed by FinTech companies to understand consumer preferences and assess creditworthiness of existing and potential customers.

According to eMarketer, in 2016 the rate of penetration of social networks and messengers was 37%, or approximately 2.3 billion active users around the world, with more than 80% of them regularly accessing social networks via mobile devices. In 2016, the audience of social networks and messengers in Russia approximated 72.4 million people (49% of the total population). VKontakte, YouTube and OK.RU (Odnoklassniki) are the most popular social networks among Russian users. According to estimates, the number of social network users in Russia will increase to 87.7 million by 2025 due to growing penetration of social networks and instant messengers in the regions, as well as their increasing popularity among older people.

3. Development of the Internet of Things
On the back of growing Internet penetration and the development of technologies for the collection, transfer, analysis and storage of data, the number of devices connected to the network and allowing users to automate many operations, including financial ones, is increasing. For example, about 17.7 billion devices were connected to the Internet worldwide in 2016; IHS forecasts a twofold increase in the number of such devices by 2020, with a further increase to 75 billion devices by 2025. In the longer term, the number of devices connected to the Internet is expected to grow exponentially, to reach 275 billion by 2035.

Such devices ensure the accumulation of data on individual and corporate users (their preferences, health, financial position, or counterparties), which is analyzed to improve decision-making algorithms based on large volumes of reliable information. This will result in growing commoditization of financial services, where transactions may be performed without human involvement.
In addition, the Internet of Things will have a significant impact on the development of the following FinTech market segments:

- Payments and remittances: planning, accounting and automatic payment for goods and services (e.g. automatic payment for housing and utility services based on the apartment’s metering units)
- InsurTech: the calculation of individual insurance plans based on customer data (e.g. the use of telematics in the car insurance segment)
- Wealth management: planning and monitoring of costs and savings (e.g. the use of applications that allow the analysis of future expenses and calculate the amount available for making purchases).

4. E-commerce volume growth

According to the experts, the fast-growing e-commerce market is of great importance for the FinTech industry. In particular, it is expected to drive growth in the volume of services provided in payments and remittances, as well as financing.

According to eMarketer, in 2016 the global e-commerce volume totaled USD 1.9 trillion, or 8.9% of retail trade. According to forecasts, the e-commerce volume in the B2C segment will grow to USD 7.9 trillion by 2025, which will be due to the following factors:

- An increase in the number of devices connected to the Internet, in particular smartphones, which are increasingly used to search for goods or services and make online purchases
- The widespread use of social networks, which represent an effective promotion channel for e-commerce websites
- A shift in consumer preferences towards online purchases as a more convenient, faster and easier way of acquiring goods, including in foreign online stores.

According to AITC, the volume of e-commerce in Russia is increasing at an average of 30% per year: it totaled RUB 920 billion in 2016. At the same time, cross-border trade is the fastest growing segment, with the largest share of online purchases being carried out by residents of major cities. According to forecasts, the Russian e-commerce market will reach USD 81 billion by 2025.

The growth in global e-commerce volumes leads to an increase in the number of transactions, in particular cross-border ones, and, as a result, to higher demand for financial solutions that allow reduced time and costs required to perform such transactions. Therefore, the increase in online trade turnover is driving the development of payment services (including digital wallets, application-based internal payments and instant payments) as well as customer lending services. It should be noted that the largest players in the e-commerce market are actively developing their own financial services based on their large customer bases, including through the acquisition of FinTech companies.
5. Growth of investments in the FinTech market

Most experts noted that the growing volume of investments is one of the key drivers of the global FinTech market's development.

According to CB Insights, at least USD 60 billion was invested in FinTech in 2011–2016, with developed FinTech hubs such as the USA, the UK and China being the most active in terms of investments. According to forecasts of Technavio, a market research company, investments in the global FinTech market will grow at an average of 56% per year up to 2020. A shift in the focus from venture and seed investments to corporate investments channeled by traditional financial institutions to startups, which can provide technological solutions to be integrated into the business processes of banks and insurance companies, is an important financing trend in the FinTech industry.

According to CB Insights, about USD 75 million was invested in the Russian FinTech market in 2011–2016. According to data provided by the experts, about 90% of investments in financial technologies are made by leading Russian banks that actively implement innovations in their business processes by means of supporting their in-house developments and providing financing to the most promising startup projects in this area.

6. Government policy

Government policy is one of the factors that play an important role in the development of FinTech innovations around the world. The creation of an environment conducive to innovation, risk control and the effective operation of the financial system of the country are the key objectives of regulation.

“Regulation determines the extent to which new products and services can access mass markets. It is difficult to scale FinTech companies due to differences in the regulation systems of different markets.”

Opinion of an industry expert

At the same time, while an approach to eliminating risks associated with financial innovations can limit the development of the FinTech market, a policy adopted by regulators to increase competition and improve the effectiveness of the financial sector can drive innovation. The FinTech market is effectively regulated, for example, in the UK, Eurozone, and Singapore. The regulatory agencies of these countries are particularly active in promoting innovative financial technologies. They partner with the business community and are willing to invest in the development of FinTech centers. For example, these countries implemented projects to create advisory platforms for ensuring communication between the regulators and FinTech companies (Project Innovate in the UK, and the Financial Technologies and Innovation Group in Singapore) and supported open banking initiatives (PSD2 in the EU, and the Open Banking Working group in the UK), the development of payment infrastructure and the creation of a favorable tax regime for FinTech startups.

“The FinTech initiatives developed by the Bank of Russia are in line with global trends which combine a balanced approach to the regulation of risks associated with innovative technologies and readiness to develop FinTech innovations. In particular, the Bank of Russia together with the FinTech Association and the ASI are working on a number of priority areas, including a number of initiatives aimed at creating a favorable environment for the development of the FinTech market in Russia.”

Opinion of an industry expert

The above-mentioned initiatives are not limited to regulating the industry, but also embrace all components of the FinTech ecosystem. EY specialists together with the working group have identified a number of FinTech priorities to ensure the development of the FinTech market in Russia.
Key initiatives aimed at supporting the FinTech ecosystem in Russia

With the aid of industry experts, EY has identified a number of key initiatives aimed at supporting the development of the FinTech ecosystem and FinTech segments in Russia, as well as overcoming the existing constraints.

The development of such initiatives allows an acceleration of the emergence of innovative products and services within the promising FinTech segments in Russia, as well as increased competitive advantages for Russia on a global scale.

### Technology

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Priority criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote identification</td>
<td>Low</td>
</tr>
<tr>
<td>Development of state infrastructure enabling a unified digital identification environment</td>
<td></td>
</tr>
<tr>
<td>Open API</td>
<td>Low</td>
</tr>
<tr>
<td>A phased transition to open API</td>
<td></td>
</tr>
<tr>
<td>Blockchain</td>
<td>Low</td>
</tr>
<tr>
<td>Identification of priority development scenarios and implementation of pilot projects based on distributed ledger technology in the financial sector</td>
<td></td>
</tr>
<tr>
<td>Big data</td>
<td>Low</td>
</tr>
<tr>
<td>Creation of conditions for the development and implementation of big data analytics</td>
<td></td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>Low</td>
</tr>
<tr>
<td>Creation of a regulatory environment to develop artificial intelligence</td>
<td></td>
</tr>
<tr>
<td>Tokenization</td>
<td>Low</td>
</tr>
<tr>
<td>Development of a secure contactless payment system in Russia</td>
<td></td>
</tr>
<tr>
<td>The Internet of Things</td>
<td>Low</td>
</tr>
<tr>
<td>Development of initiatives to regulate and promote the Internet of Things</td>
<td></td>
</tr>
<tr>
<td>Cloud technologies</td>
<td>Low</td>
</tr>
<tr>
<td>Promotion of cloud technologies</td>
<td></td>
</tr>
</tbody>
</table>

### Talent

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Priority criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of the talent pipeline based on international practice</td>
<td>Low</td>
</tr>
<tr>
<td>Development of a mentoring culture and creation of incubators for technological startups</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Capital

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Priority criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of investments via various investment support mechanisms</td>
<td>Low</td>
</tr>
</tbody>
</table>

Priority criteria:

- Low
- Medium
- High
This list of initiatives was developed during the research that EY carried out in July 2017. In 2018, the Bank of Russia published the Guidelines for Financial Technologies Development for 2018–2020, which not only comprises the proposed key initiatives from the research, but also implies the implementation of a range of infrastructure projects. Among those are the development of a platform for transaction registration, the development of a payment gateway of the Bank of Russia, the development of the financial services marketplace and mechanisms for financial messages transfer and a clients’ walk-through identifier.

Moreover, the Guidelines for Financial Technologies Development for 2018–2020 also includes the application of innovative technologies to enhance the financial regulation and supervision process, as well as cybersecurity.
Focus on FinTech: Russian market growth prospect

A number of legislative initiatives were launched in the second half of 2017 to define the legal status of new technologies and create a regulatory environment conducive to their development. For example, draft laws on remote identification, big data and artificial intelligence started to be actively drafted. In particular, a meeting on the use of digital technologies in the financial sector was held by the President of the Russian Federation; as a result, the President of the Russian Federation issued an Instruction which set a whole range of organizational and regulatory initiatives in motion.

The Digital Economy program adopted in the summer of 2017 also contributed to the rapid development of technologies in Russia. This program determined that most of these technologies are of high priority for further development of the FinTech industry.

**Remote identification**

In the autumn of 2017, PJSC Rostelecom launched testing of the Unified Biometric System (UBS) which allows the remote identification of bank customers. In December 2017, the Russian government introduced a law that established the legal framework for remote identification and provides the mechanism for opening remote bank accounts.

**Open API**

In the autumn of 2017, three participants of the AFT (PJSC Bank Otkritie Financial Corporation, JSC Qiwi Bank and JSC Gazprombank) announced the opening of their own interfaces for third-party developers.

**Distributed ledger technologies**

In August 2017, the AFT issued a newsletter on the Masterchain platform, which contains a description of the platform’s key operating principles.

Following the meeting, the President of the Russian Federation issued an Instruction ordering the definition of certain FinTech concepts, such as cryptocurrency, smart contract, distributed ledger technology, electronic letters of credit and mortgage certificates, and set the requirements for organizations that carry out their business and raise financing based on the blockchain platform.

In September 2017, a cooperation agreement for the development of distributed register technologies was signed; the agreement provides for the establishment of a Center of Competences for new materials and breakthrough technologies (its main effort should be directed towards blockchain technology) at the premises of NUST MISIS. In addition, in December 2017 State Corporation Bank for Development and Foreign Economic Affairs announced the creation of the first Russian “blockchain commune”, a platform for developing blockchain-based projects and holding training events.

**Big Data**

Big data technologies were included in the list of priority end-to-end technologies to be implemented under the Digital Economy program.

**Artificial intelligence**

Artificial intelligence technologies and neurotechnologies are also included in the list of priorities under the Digital Economy program. In November 2017, ANO Robolaw established by the law firm Dentons prepared a draft convention on robotics and artificial intelligence. This document combined all existing approaches to artificial intelligence regulation. The draft convention was submitted to the State Duma's Committee on Economic Policy, Industry, Innovation-Based Development and Entrepreneurship for consideration in the first half of 2018.

**Tokenization**

In December 2017, Samsung Pay, a mobile contactless payment service, became available for the holders of MIR cards issued by banks participating in the pilot project. The mobile service and systems of JSC National Card Payment System (NCPS) will be fully integrated in 2018.

**The Internet of Things**

A regulatory framework for identifying objects of the Internet of Things is planned to be developed as part of the implementation of the action plan under the Digital Economy program. The development of an operating system for the Internet of Things in Russia is one of the objectives of the program adopted in the summer of 2017.

**Cloud technologies**

In October 2017, PJSC Rostelecom announced the launch of the commercial operation of a partner platform for corporate and government customers of cloud solutions enabling the automation of business processes.
In the second half of 2017, a number of projects were initiated to drive demand for FinTech services among Russian citizens. For example, the AFT launched a project to create a retail payments platform which has already been implemented in several foreign countries, and also entered into a partnership agreement with Skolkovo Technopark. Both initiatives are aimed at improving the quality and expanding the range of FinTech services provided in the Russian market, which may increase demand for innovative financial products in the future.

The Ministry of Communications and Mass Media of the Russian Federation and the Bank of Russia also initiated projects aimed at generating demand for FinTech services among the Russian population. These initiatives are aimed at increasing awareness and stimulating a conscious and responsible choice of financial services (the “Financial Culture” and “Financial Environment” programs of the Bank of Russia), as well as promoting greater Internet penetration in the Russian regions (the “Elimination of the Digital Divide” and “Rural Communication” projects).

FinTech startups are now provided with better access to financing. In particular, startups have gained access to capital markets, and the rules for regulating the operation of mutual financing platforms have started to be developed.

**Demand**

**Creation of a unified retail payment environment**

In September 2017, the AFT presented a project to create a retail fast payments platform. The platform functionality will allow payments between retail customers (p2p) and retail and corporate customers (p2c) 365/24/7. The interface development and pilot testing of the platform are expected to be completed in the second quarter of 2018.\(^1\)

In November 2017, PJSC Sberbank, JSC Alfa-Bank and PJSC MegaFon performed the first blockchain-based payment transaction in Russia.\(^2\)

**Support for Russian FinTech startups**

A memorandum of partnership between the AFT and Skolkovo Technopark was signed during the Open Innovations forum. The partnership enables the creation of a unified information and technology platform to ensure communication between startups and members of the banking community, which will ultimately support the emergence of new innovative products.\(^3\)

FinTechLab, a FinTech accelerator and one of the sponsors of the largest FinTech startup contest in Russia, also announced the launch of InsurtechLab, a program for accelerating startups in insurance, at the Finopolis forum.\(^4\)

**Internet expansion**

The Digital Economy program adopted in the summer of 2017 provides for growing Internet penetration in Russia. According to the program, the Internet penetration rate is expected to reach 97% by 2024 due to the full-scale coverage of Russian cities, with broadband Internet access being provided under the “Elimination of the Digital Divide” and “Rural Communication” projects.\(^5\)

**Financial awareness**

In Q3, the Bank of Russia launched two projects aimed at improving financial awareness of the population. The “Financial Culture” project is an information resource for gaining basic financial knowledge and personal financial management skills. The second project (“Financial Environment”) delivers a set of open lectures by specialists of the Bank of Russia and financial experts.\(^6\)
In the second half of 2017, the regulatory initiatives in the Russian FinTech market were mainly driven by the Bank of Russia. Over the last five months, the Russian regulator has continued to develop priority FinTech areas. In particular, it managed to achieve certain progress in developing a mechanism for electronic interaction between players in the Russian financial sector by launching a project for communication between the Bank of Russia and credit institutions via personal accounts. In addition, the President of the Russian Federation supported the Bank of Russia’s project to create a “regulatory sandbox” in his Instruction issued in October 2017. In the prior period, a number of organizational decisions were made to coordinate efforts of the Russian authorities aimed at developing the digital economy and international cooperation.

**Cross-regulation**
Following the meeting of the Interregional Banking Board under the Russian Federation Council, which was held on 26 October 2017 to discuss the main areas of the digital economy’s development in the financial sector, a working group was created with the purpose of improving existing legislation to support the development of the digital economy.¹⁶

**Electronic interaction**
In October 2017, the procedure for communication between the Bank of Russia and credit institutions was updated to ensure better information exchange between the parties and enable credit institutions to report to the Bank of Russia via their personal accounts.¹⁹

**Regulatory sandbox**
In October 2017, the President of the Russian Federation issued an Instruction requiring the creation of a “regulatory sandbox” under the supervision of the Bank of Russia for the purpose of testing innovative financial technologies, products and services before they enter the financial market.⁶ The Bank of Russia’s concept of the “regulatory sandbox” allows piloting of innovative financial technologies, testing the hypothesis of a positive impact of their implementation, as well as minimization of potential risks and threats.

**International cooperation**
The above Instruction also includes the creation of a common payment environment for EAEU member states.⁵
Talent

Talent pool training

The development of human resources is one of the key objectives of the Digital Economy program. In particular, the program is intended to set training requirements for professionals in the digital economy and implement them in the education system.¹

In the autumn of 2017, a number of educational projects were launched by higher education institutions to train professionals with sufficient digital competencies. In particular, Moscow State University established the National Center of Digital Economy; Moscow Institute of Physics and Technology and MGIMO University launched a joint MBA program for IT managers; Financial University under the Government of the Russian Federation founded a FinTech school for studying the Internet of Things; Moscow Institute of Physics and Technology launched the first Russian online Master’s degree program on technology entrepreneurship; Higher School of Economics launched a Master’s degree program on financial technologies and data analysis.²⁰

Alongside higher education institutions, the NTI (NTI University 20.35) and Scream School (Blockchain Academy) platforms also launched educational projects in the second half of 2017. The Finopolis forum also launched its first Fintech Youth Day in October 2017. The event was aimed at promotion of financial technologies among students and young scholars. During the Fintech Youth Day, teams from a range of Russian universities competed in the activity-specific contests and took part in panel discussions with officials from the Bank of Russia, commercial banks, and FinTech startups.²¹
Focus on FinTech: Russian market growth prospects

Sources:
8. https://www.rbc.ru/newspaper/2017/11/21/5a0ef3ac9a79474efac57ea3
Contact information

Anton Ustimenko
Partner, Head of Technology, Communications and Media & Entertainment in the CIS
Tel: +7 (495) 755 9918
Anton.Ustimenko@ru.ey.com

Julia Loginova
Manager, Corporate Finance Strategy
Tel.: +7 (495) 660 4853
Julia.Loginova@ru.ey.com

Anna Guseva
Partner, Head of FinTech Transaction Advisory in Russia
Tel.: +7 (495) 641 2944
Anna.Guseva@ru.ey.com

Pavel Guryanov
Senior, Corporate Finance Strategy
Tel.: +7 (495) 755 9700
Pavel.Guryanov@ru.ey.com

Natalia Nikitenko
Director, Transaction Advisory Services, Head of Corporate Finance Strategy
Tel.: +7 (495) 783 2510
Natalia.Nikitenko@ru.ey.com
About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY works together with companies across the CIS and assists them in realizing their business goals. 4,500 professionals work at 20 CIS offices (in Moscow, St. Petersburg, Novosibirsk, Ekaterinburg, Kazan, Krasnodar, Rostov-on-Don, Togliatti, Vladivostok, Yuzhno-Sakhalinsk, Almaty, Astana, Atyrau, Bishkek, Baku, Kyiv, Tashkent, Tbilisi, Yerevan and Minsk).

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

© 2017 Ernst & Young Valuation and Advisory Services LLC. All Rights Reserved.

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither EYGM Limited nor any other member of the global EY organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.