



Fintech Market Entry to CIS, Central Asia, and Mongolia

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About us

The AIFC's mission is to contribute to the sustainable economic development of the region by fostering innovative financial products and services. Supported by innovative market infrastructure, it offers an independent legal and regulatory framework based on the principles of common law and global best practice.

The AIFC objectives include assisting direct and portfolio investment attraction, developing an integrated securities market, insurance markets, banking services, Islamic finance, financial technologies, e-commerce, and innovative projects.

AIFC strategic directions for sustainable development include advancing of a circular economy and financial technologies, and serving as a digital financial centre.

Foreword



Dear reader,

I am delighted to present to you the Fintech Market Entry to CIS, Central Asia and Mongolia report. Our goal is to keep you updated on fintech developments in the selected regions and to provide insightful data and industry analytics.

Today, fintech opportunities are widely discussed on different levels. As the regional financial hub, AIFC draws attention from the CIS, Central Asia and Mongolia markets. We have prepared this report to meet the growing interest and facilitate regional fintech development. It should benefit researchers, investors, and current and potential fintech market players.

This report is the product of cross-border cooperation and the meticulous efforts of experts from six countries. I commend our regional partners from Russian FinTech Association, Ukrainian Association of Fintech and Innovation Companies, IT Park Uzbekistan, Belarusian Economic Research and Outreach Center, High Technology Park of the Kyrgyz Republic, Access Solutions, and QazTech Ventures, on their thorough work in helping to prepare this report.

We are very thankful to all those who have contributed their time and insights and made the production of this report possible. We hope the presented data and analytics will be helpful to all stakeholders across the fintech industry.

I wish you an exciting read!

Dr. Kairat Kelimbetov The Governor of the Astana International Financial Centre

Belarus

Population – 9.5 mln Internet penetration – 79% Mobile connections – 126% # of fintech startups ~ 70 Key subsectors - payments, transfers, investment platforms Regulatory Sandbox - no Global Innovation Index: 72nd

Ukraine

Population – 41.9 mln Internet penetration – 71% Mobile connections – 139% # of fintech startups ~ 100 Key subsectors – payments, Insurtech, Regtech Regulatory Sandbox - in progress Global Innovation Index - 47th

Mongolia

Population – 3.3 mln Internet penetration – 68% Mobile connections – 136% # of fintech startups – N/A Key subsectors – micro-lending, transfers Regulatory Sandbox - no Global Innovation Index – 53rd



Population – 33.5 mln Internet penetration – 66% Mobile connections – 76% Banking penetration – 40% # of fintech startups ~ 45 Key subsectors – transfers, payments, micro-lending Regulatory Sandbox – formation stage

Russia

Population – 145.9 mln Internet penetration – 81% Mobile connections – 163% # of fintech startups - 450 Key subsectors – digital banking, lending, scoring, marketplaces Regulatory Sandbox - yes Global Innovation Index - 46th

Kazakhstan

Population – 18.7 mln Internet penetration – 90% Mobile connections – 136% # of fintech startups ~ 53 Key subsectors – payments, accounting, lending, marketplaces Regulatory Sandbox - yes Global Innovation Index - 79th

| Kyrgyz Republic

Population – 6.5 mln Internet penetration - 47% Mobile connections – 150% # of fintech startups – N/A Key subsectors – e-wallets, transfers Regulatory Sandbox – yes Global Innovation Index – 90th



Banks are actively working on in-house innovative solutions

- The size of the Russian fintech market will reach USD 940 mln in 2020 (Deloitte). In 2019, investments in fintech startups reached USD 216 mln.
- In 2019, Russia was placed among the top three leading countries with the highest rate of fintech penetration with 82% of the citizens using various fintech services (E&Y).
- Main challenges: overall investment climate, mistrust in new financial technologies, relatively low financial literacy.
- Trends: 1. Providing customers with life-style banking and Super Apps 2. Focusing on new market segments such as self-employed and SMEs 3. Growing popularity of Open Banking.



Kazakhstan is developing its policy towards the fostering a digital economy and innovations

- There are two regulatory sandboxes: one is driven by the National Bank and the Financial Agency, the other, Fintech Lab, was launched by the AIFC.
- Growing demand for fintech products and services due to the relatively high percentage of underbanked consumers, geographic outreach of the banking sector and high internet/mobile penetration rates.
- The "Digital Kazakhstan" state program envisages the development of fintech.
- Government established the QazTech Ventures JSC to promote venture financing tools and support.



Imperfection of legislation makes it difficult for foreign companies to enter the market, which provides space for the development of local projects

- Ranks #4 in the world for contactless payments (Mastercard).
- Traditional financial institutions are ready to cooperate with fintech.
- The National Bank of Ukraine supports the implementation of innovations and development of the fintech market: BankID, open API, instant payments 24/7, blockchain, digital currency. etc.
- Most Ukrainian fintech companies are at the stage of market launch or business scaling-up, and only one in five is a mature business.
- Companies founded since the beginning of 2018 are more globally oriented: only 43% of them operate exclusively in Ukraine.
- Main challenges: over-regulation, lack of a legal basis and low financial literacy of the population.



Government support in Uzbekistan is focused on blockchain and cryptocurrencies, these segments are the most advanced in regulation and attracts foreign investment

- The fintech ecosystem of Uzbekistan is represented by 2 payment processing services, Humo & UZcard, more than 10 payment companies including two owned by telecom companies, more than 28 mobile banking applications and one digital bank.
- Main challenges: relatively low internet penetration, the lack of regulation and the absence of trust in the traditional banks among the population, where more than half of adults are unbanked.
- The point of entry to the internet for the population is almost exclusively mobile. So, digital banking services in the form of mobile applications, mobile payments and peer-to-peer transfers is the fast developing and highly competitive segment.
- The key players are Uzcard and Humo as card providers, and CLICK, Payme and PAYNET among non-banking payment providers.
- E-commerce is underdeveloped and relies on cash payments.
- Micro-lending startups are emerging.
- The venture ecosystem is in the beginning stage and access to capital is almost non-existent.



Belarussian High-Tech Park is a driver of the country's fintech development due to immigration regulations, exemptions from currency control and English law instruments

- Belarus became the first country in the world, where operations with crypto assets were legalized.
- The National Bank is planning to start a pilot project: 12 commercial banks will be allowed to attract money by issuing digital tokens. The tokens will be issued with the help of HTP residents

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The Central bank introduced a new electronic payment instrument to the national payment and settlement system – "Digital currency"

- SMEs make up 90% of the registered businesses and provide about 50% of all jobs, up to 90% of such enterprises do not have regular access to finance from banks.
- Main challenges: high costs to start a new business, access to finance, financial literacy, access to mentors.
- The main challenge for the development of e-commerce: a poor logistic system, low standardized addressing and insufficiently integrated payment system.
- Venture ecosystem is on the stage of development



To facilitate local startups the National Bank is expected to consider the sandbox approach

- Digital payments are relatively new in the market, but there has been growth over the past few years
- Fintechindustryisshaped by the telecommunication companies, which have adapted their technical capacities to reach small and underserved groups, and to provide them with financial services.
- The National Bank is committed to promote development of the fintech, and thus, actively endorses the Concept for the development of digital payment technologies in the Kyrgyz Republic for 2020-2022.
- To facilitate local startups the national bank is expected to consider the sandbox approach.
- Main challenges: access to capital

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CHAPTER



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Fintech Market Overview

- In 2020, the size of Russian fintech market will reach 65 billion rubles (USD 940 million) (Deloitte);
- In 2019, investment in Russian fintech startups reached USD 216 million;
- Number of fintech startups in Russia: about 450;
- In 2019, Russia was placed among **top three leading** countries with the highest rate of fintech penetration (considering banking and non-banking services) with **82%** of the citizens using various fintech services (E&Y).

The main feature of the Russian fintech industry is the key role of the banking sector in the development of financial technologies. Banks are actively working on in-house innovative solutions developed by their own IT professionals. The domination of banks in the Russian fintech ecosystem explains the relatively low level of independent fintech solutions entering the market.

Access to Capital

There are **87 venture capital funds** in Russia to ensure the financing of startups at different stages of their development. By the number of transactions, the most active VCs in Russia are Sberbank-500, TealTech Capital, A&A Capital, Digital Horizon, Alpha Accelerator (RVC, 2019).

However, the activity of domestic venture capital funds is relatively low compared to the foreign fintech ecosystems of the EU, North America and Southeast Asia, where venture financing is one of the key market drivers. In addition, the number of the venture capital **funds specifically targeting fintech startups is rather small, represented by Sk Ventures, Starta Capital, Prostor Capital, QIWI Venture etc.** At the same time, new accelerators and business incubators are emerging, which provide significant support to fintech startups. There are about 50 acceleration programs only in Moscow alone, including GenerationS, Fintech Lab, IIDF, Global Venture Alliance, VentureClub, Winno Moscow, Skolkovo Startup Academy, and HSE Business Incubator. In addition, corporate accelerators are being actively launched by major banks i.e. Sberbank, VTB, Uralsib and other market players.

Fintech Ecosystem

The Russian fintech ecosystem being quite diverse, incorporates a vast number of participants:

- Venture capital funds
- Accelerators & incubators
- Startups
- Fintech companies
- The Bank of Russia
- Federal Executive Bodies
- Associations (particularly Russian FinTech Association) serving as a platform for dialogue, elaboration of technological solutions & proposals for legislation amendments
- Banks
- Customers (business & individuals)

The key players and important participants of the fintech ecosystem are banks that actively integrate fintech innovations. Notably, banks are the main drivers of fintech in Russia for several reasons. First, unlike Western financial institutions, Russian banks were not burdened with legacy systems and built internal processes from the scratch using relevant IT solutions, which has made them more agile and able to absorb innovation. Secondly, due to the weak startups financing system in Russia, it is not easy for small fintech companies to scale up and compete with large banks that have large financial and human resources for innovative development.

Accelerators and incubators are catalysts for innovative solutions, helping companies to gain the necessary practical experience in piloting their projects with further entrance to the market, provided that all the necessary requirements are successfully met.

End customers (businesses & individuals) are the direct drivers of fintech as they generate demand in the market. In an ever-changing environment, people and enterprises need innovative solutions to transform financial services into a convenient, simple and quick experience.

Banking Landscape Overview

According to the Bank of Russia, there are currently 394 banks as of May 2020. Over the last decade, the total number of banks has more than halved in comparison to 1108 banks existing in 2009. This is primarily due to the regulator's new leadership (Elvira Nabiullina became the Chairman of the Bank of Russia in the summer of 2013) who have been conducting a full-scale purge of unscrupulous players in the banking sector over the past few years.

In general, the Russian banking sector, as in many other countries of the world (including North America and the EU), is characterized by a rather high concentration of assets among the largest market participants. According to the Bank of Russia, the five largest credit organizations account for 60.4% of all assets of the banking sector. It worth to mention that the largest financial institution, Sberbank, dominates the market. To illustrate, Sberbank's share in the retail deposits market is 43.8% as of 2019. Furthermore, there is an existing regional imbalance in Russia insofar as 51.3% of banks are registered in Moscow.

The banking sector has been growing steadily over the past ten years. The annual growth rate of Russian banks assets was about 14.3% on average, while the growth rate of equity was 9.4% during the time period from 2011 to 2020. Over the same period, the annual growth rate of loans issued to individuals reached 18.1%, and the average growth rate of deposits of individuals reached 14.1%.

As for the digital transformation of Russian banks, we can see that the banking sector incorporates different types of players. There are independent neobanks with their own banking licenses – such as Modulbank and the recently established Bank 131. There are also digital subsidiaries of traditional banks like Tochka and Delobank. Some of the Russian neo-banks demonstrate efficiency comparable to their foreign counterparts.

According to Bloomchain, the ratio of net commission incometonet interest income of the Russian neo-bank Modulbank is 609%, while British neobanks Monzo and OakNorth demonstrate 911% and 838% respectively. These numbers are much higher than those achieved by both Russian and foreign traditional banks, which illustrate the ratio from 30 to 180%, as indicated in the Bloomchain report.

As for incumbents, players like Alfa-Bank, Otkritie, and Reiffeisen Bank have a relatively long history (in the Russian context) and were launched in the early 1990's. As their digital competitors, incumbents put great effort into digital transformation.



Number of banks

The IT budgets of traditional Russian banks are not as large as of their Western counterparts. But, if compared by the share of IT budget in assets of traditional players like Sberbank, they demonstrate levels comparable to the largest banks in the world, which speaks to the effort put into the digital transformation of the Russian banking industry.

As for the customers, the banking sector is growing quite rapidly as well. In 2020, the number of bank cards issued in Russia reached 288 million, which is approximately two cards per person. This number is comparable to the EU, where each resident possesses two bank cards on average. The share of adults using remote access to bank accounts is growing quite rapidly. The number of accounts with Internet access was 35 million in April 2014, and in 2020 it reached 200 million. Taking this into account, the Russian market is evolving in a dynamic way and provides good opportunities for banks and other market players to develop fintech solutions.

Regulation & Government Support

The active development of the fintech market due to the appearance of new technologies requires proper legal regulation.

The evolution of the fintech sector is one of the key highlights of the Digital Economy program (adopted in 2019) managed by the Government of the Russian Federation. The Digital Economy is one of the thirteen National Projects and is planned to be implemented before 2024. The aims of the program include creating a system of legal regulation of the digital economy based on a flexible approach in each area, building a national IT-infrastructure based on Russian technologies as well as boosting the training for highly qualified personnel for the digital economy.



Expenditures of banks on IT

Source: Bloomchain, 2019

The overall investment into the Digital Economy program will be 1.7 trillion rubles (around 25 billion USD) before 2024. The program includes nine technologies, which are marked as priority by the Russian Government:

- Big Data,
- distributed ledger technology,
- neuro-technologies and AI,
- quantum technology,
- new manufacturing technologies,
- industrial internet,
- robotics and sensors,
- wireless communication technologies,
- virtual and augmented reality technologies.

The Roadmaps for each of the key technologies are developed by the state corporations and educational organizations. For instance, the Roadmap for Distributed Ledger Technology mentions the plan to invest 73.2 billion rubles, or 1 billion USD in the initiative. The Digital Economy can be seen as one of the key drivers of the Russian fintech ecosystem, as most of the key technologies of the program are crucial to the financial technologies market like AI, DLT, big data and wireless communication.

The State Duma of the Federal Assembly of the Russian Federation (the Lower Chamber of the Russian parliament) has adopted legislations aimed at fostering development and providing proper regulation for the Russian fintech sector. Among the latest initiatives that are being considered is a draft legislation regarding digital financial assets, which will determine and establish the specifics of the circulation of digital financial assets. The growing interest of the business community in blockchain technology and its capabilities is a significant catalyst for the acceleration of the legalization of digital assets.

One of the key participants of any national fintech ecosystem is a regulator. The Central Bank of the Russian Federation (the Bank of Russia) is fostering the Russian financial market and the development of financial technologies.

In 2019, the Bank of Russia adopted the Russian Financial Market Development Program For 2019-2021. The main directions of the program include building a trust environment, the development of competition, maintaining financial stability, as well as ensuring the availability of financial services and capital. The document outlines aims and tasks, as well as indicators that will help monitor the effectiveness of the measures applied. One of these is the share of financial products and services available to individuals via remote channels. The target share for 2021 is 85%. In 2018, the Bank of Russia approved the Guidelines for Financial Technology Development for 2018-2020. In order to foster the fintech in this period, the Bank of Russia has set the following objectives:

- promoting competition in the financial market;
- raising financial inclusion, and increasing the quality and range of financial services;
- reducing risks and costs in the financial sector;
- ensuring security and stability in applying financial technologies;
- raising the competitiveness of Russian technologies.

The regulator is delivering on the abovementioned objectives in cooperation with financial market participants, fintech companies and concerned government agencies. Measures stipulated in the guidelines contribute to the implementation of the Digital Economy of the Russian Federation program and other fintechrelated projects. The guidelines include several platform solutions and projects as part of the Russian financial infrastructure. Such platform solutions are developed in a way that they can be accessed by all market participants, including small players who are not always able to afford investing in fintech. The Faster Payment System (FPS) and the Unified Biometric System (UBS) are the examples of aforementioned platforms.

Specifically, UBS was created by the Bank of Russia in collaboration with Rostelekom and the Ministry of Telecom and Mass Communications of the Russian Federation. The Unified Biometric System as a platform is actively evolving, and it allows a bank from any Russian region to remotely provide a loan or other financial products and services to any citizen registered in UBS. Additionally, the Bank of Russia also announced that it would give banks privileges on loans reserves, issued using the UBS.

In December 2017, the Bank of Russia in collaboration with market participants started working on the Marketplace project. The goal of the Marketplace is to organize a system of remote retail distribution of financial products and services. The project is designed to ensure equal user access to financial markets, create conditions for the development of a competitive environment and the effectiveness of financial services. The product range will include bank deposits, government and corporate bonds, shares of mutual investment funds, MTPL insurance and mortgage loans. It can be further expanded to include credit and insurance products.

The Financial Message Transfer System of the Bank of Russia (FMTS), operating on the basis of information and telecommunication system of the Bank, was created to ensure the uninterrupted provision of services for the transfer of financial messages in the SWIFT format for internal Russian operations. The development of FMTS involves the expansion of the range of services and users, as well as the organization of intersystem cooperation in the Eurasian Economic Union.

The Bank of Russia also provides a **regulatory sandbox** for the testing of innovative technological ideas in key areas of the financial market: distributed ledger technology (DLT), artificial intelligence (AI), Big Data, machine learning, biometric technologies, remote identification technologies, digital services and open APIs, etc.

A constructive dialogue between all participants in the financial market is crucial when it comes to innovation development. The Bank of Russia, in collaboration with the largest financial market players, created the Russian FinTech Association (RFA) in 2016. RFA aims at creating conditions for the digitalization of the Russian economy, as well as developing and implementing new technological solutions to ensure the development of the financial market of the Russian Federation. RFA actively promotes the implementation of infrastructure solutions, developed by the Association members, which helps reduce the barriers in the industry and fosters market competition.

Russian FinTech Association Projects

The Bank of Russia in collaboration with the largest financial companies are working on several projects within the framework of the Russian FinTech Association (RFA). These projects include the Faster Payments System, the Masterchain platform, Remote Identification and the Digital Profile, Open APIs, Cloud Services, etc.

Masterchain Platform

The Russian FinTech Association began to develop the Masterchain platform together with the Bank of Russia and the largest market players in 2016. The platform is based on distributed ledger technology (DLT) and designed to store and exchange data specifically for financial organizations.

In 2019, Masterchain was certified by the Federal Security Service of Russia for cryptographic protection of information. It became the first Russian blockchain platform, which fulfills all information security requirements for financial operations. The certification of Masterchain plays an important role for the platform itself, as well as for the evolution of blockchain technology in Russia as a whole. In 2019, Mastechain launched the Decentralized Depository System (DDS) project. It applies smart contracts, which allow fully automated registration and accounting of securities in the depository. The DDS project is now used to register digital mortgages. It reduces the costs of involved depositories by more than 30%. The time of mortgage registration has been reduced from nine days to only one day. The next project to be developed on Masterchain is digital bank guarantees.

RFA also conducts R&D in the area of distributed ledger technology. The Association plans to focus on three key research areas: interoperability (interaction of blockchain platforms), scaling, and data security. RFA is also looking closely at the standardization of smart contracts

Open API

The Bank of Russia together with the Russian FinTech Association and its members are working on standards and mechanisms for the implementation of Open API (application programming interfaces). RFA, together with its members, is developing the requirements for information security and data models of Open API. In the summer of 2019, the RFA Supervisory Board approved the Open API Concept. Further work of RFA members continues in accordance with the approved Roadmap for the Implementation of Open API in Russia. The recommendations regarding the principles and implementation of Open API will be provided to the Bank of Russia.

Faster Payments System

The Faster Payments System (FPS) was launched in early 2019. The Bank of Russia is the operator of FPS, while the National Payment Card System (NPCS) performs the role of operational clearing center. The Faster Payments System is a service that allows individuals to transfer money between their accounts or to other persons online 24/7, using a mobile phone number irrespective of the payer's or the payee's banks. The Bank of Russia removed commission for transfers less than 100 thousand rubles (around \$1400) per month. Customers can also purchase goods via QR-codes in the retail stores using FPS.

As of June 2020, 69 banks (including the largest ones) have participated in FPS. The system is still in active development, and new services like B2C payments will be added. The Russian FinTech Association together with its members have researched the international experience in the area of Faster Payments Systems and developed the Concept of the Russian FPS.

Remote Identification

RFA members are working on formulating regulatory proposals, developing standards, participating in projects in the field of identification, authentication and digital identity management in Russia. In 2018, the Unified Biometric System (UBS) was launched. It is a digital platform that allows citizens to remotely access banking products, such as obtaining loans and opening accounts. UBS is operated by Rostelecom. The Unified Biometric System uses two identifiers – voice and facial recognition. RFA members are currently working on the concept of Biometrics Lite – data collection through remote trusted channels and services, which can be used to purchase goods or services with biometrics, or to identify clients of the call centers.

Digital Profile

The Digital Profile (DP) project aims to provide citizens with the opportunity to grant or recall access to their data. The system also provides convenient, safe and fast data exchange between citizens, the government and enterprises.

RFA, together with its members, have developed the Concept of Digital Profile. RFA members, the Bank of Russia, the Ministry of Digital Development, Telecommunications and Mass Communications of the Russian Federation are working on the project.

In May 2020, Russia launched a pilot project of remote registration of loans and mortgages through the Public Services Portal on the DP platform. As of summer 2020, the Digital Profile service includes 30 categories of citizen data: passport data, address, taxpayer identification number, driver's license, etc. The citizens can provide access to their data to various organizations to perform legally relevant actions online.

In June, the first insurance company – AlfaStrahovanie – has joined the project and their number will increase in the future to introduce online car insurance. In addition, the set of available data categories will be increased up to 61, which will make the Digital Profile a universal tool for remote interaction with government agencies and companies.

Cloud Technologies

In April 2020, the General Meeting of the RFA members approved Cloud Services. RFA will create conditions for banks to use cloud services. Within the framework of the direction, RFA members plan primarily to develop common standards and approaches for the certification of the cloud service providers. Cloud services can help market participants solve problems such as automating authorization services and interbank data checks, as well as using API portals for fintech service interfaces – in the end this will make banking services easier and faster to obtain.

Talent Development

The RFA members are developing national professional standards and assessment tools for fintech professionals. In particular, the RFA in collaboration with the Council for Professional Qualifications of the Financial Market have developed a draft of qualification requirements for fintech specialists. The initiative will help the Russian education and labor market in the area of fintech.

A large number of educational fintech programs have recently appeared in Russia, including Master's programs: the HSE Financial Technologies and Data Analysis program, the Financial Markets and fintech program of the Financial University, Financial Big Data by ITMO University, and others.

Meanwhile, market participants are developing their own corporate educational programs, including programs by Tinkoff Bank, the Moscow School of Management Skolkovo, VTB and others.

In addition, Russia holds annual mass events where industry representatives exchange their opinions and insights. Such events include the FINOPOLIS Forum of Innovative Financial Technologies, the FinNext Forum, and Tech Week.

Fintech Drivers

The positive dynamics of the Russian fintech market are determined by several key factors. First, Russia has a fairly high penetration rate of the Internet and mobile devices. According to the Ministry of Digital Development, **Communications and Mass Media of the** Russian Federation, about 100 million of Russians are Internet users, while about 73 million people are actively using mobile Internet. In addition, increasing the availability of financial services and their penetration helps the overall market development. The share of consumers, who used fintech services in the field of payments and transfers, reached 90% in 2019.

Another important driver is the development of e-commerce. According to Morgan Stanley forecasts, the annual growth rate of the Russian e-commerce market in the coming years will be around 25%, and by 2024 the market volume will reach 3.5 trillion rubles (USD 50 bln). All these factors indicate that Russia has all the conditions needed for fintech startups and solutions, including the ones which can be competitive in the global market.

Development Barriers

Of course, despite the positive dynamics of the development of the fintech market in Russia, the market faces certain challenges.

One of the key challenges of the national fintech ecosystem is the overall investment climate in Russia. As a rule, fintech startups obtain financing with difficulty. There are also the great regional disproportions (Moscow receives about 45% of Russia's entire IT government spending). Russian customers also mistrust new financial technologies, such as P2P lending or crowdfunding. Another important barrier for the Russian fintech is at relatively low financial literacy of the population. Among the G20 countries, Russia is below average in terms of financial literacy. In addition, the growth of cyber threats hinder the speed of adaptation of fintech solutions to the market.

Fintech Trends

The Russian financial market is reacting to the ever-changing needs of customers. In practice, many global fintech trends reach the Russian market quite early - and together with local specifics and regulatory initiatives, they can create unique opportunities for all market participants. Three trends are now gaining momentum in Russia.

First of all, there is a trend towards ecosystems.

We see that the banking industry is increasingly overlapping with other industries – the large banks seek to provide customers with the so-called lifestyle-banking and offer a wide range of non-financial products and services, from movie tickets to taxi discounts.

To achieve that, banks are seeking cooperation with other industries including retail, telco, and real estate via partnerships or M&A. In this context, **Russian banks are also developing Super Apps – applications, which provide an all-in-one experience and help access many different services.** According to Spektr research company, several banking Super Apps will appear on the Russian market in 2020.

Secondly, banks are focusing on new market segments. In 2019, the large banks launched a number of services for the self-employed, as a reaction to new regulation of self-employment; new fintech services for small and mediumsized businesses (SMEs) were launched last year. We believe that the Russian market will continue to follow the path of creating fintech solutions for certain categories of customers.

Last but not least is the growing popularity of Open Banking in Russia. As mentioned before, Russia hasn't introduced Open API regulation yet. However, the market players already see the benefits of the Open Banking concept and are cooperating with the API platforms to launch new financial services based on Open API.

Expert opinion

Vitaliy Kopysov Head of Innovations, SKB-Bank



The concept of Russian fintech still does not exist in its pure form. Financial technologies in Russia are being developed by individual banks, telecoms, insurance and IT companies. This is proving to be most effective when joining forces, as is the case for the Russian FinTech Association. This is an excellent platform for collaboration on projects and a constructive dialogue between the regulator and business representatives. Banks themselves are actively introducing new technologies using their resource base, or acquiring projects from small fintech companies by integrating their products and services into their ecosystems, which in fact leads to a loss of startups' independence and their maturing in accordance with corporate standards. A far as the Russian landscape is concerned, there are obvious leaders in remote banking who have moved further ahead in terms of digital platforms development. A notable breakthrough occurred during the pandemic: consumer demand was redistributed from offline to digital ecosystems, where the client can receive any service or product with a couple of clicks without leaving their home. Today, all stages of the Faster Payments System (FPS) development are becoming mainstream. We see the transition of small and mediumsized businesses' turnover to the system, reducing their costs for receiving payments. At the government level, the development of remote identification is supported through the use of a customer's biometric data (voice and image recordings). Such projects are once again being developed by banks that are interested in such services, as it reduces time and financial costs. We already have the opportunity to accept loan applications through the a Digital Profile, as clients can fill out a loan application by providing data from the Public Services Portal, which confirms a high degree of trust from the government side.

Fintech Ecosystem Map (1 out 2)

🗸 Налогия

фингуру

GFS

ВКРЕДИТ, Р/

paylate

SURETLY

Moneza

/ НДФЛка

KONSIERGE

Простоплан

Green

🖹 МодульБухгалтерия

кОнтур.эльба

🔁 🛈 🖸

BankCreditCard.ru

🕒 🖂 🚯

SOLVA

поток

Panda money

БОНУС

Payments Accounting ЦЕНТРАЛЬНАЯ КАССА 🔀 МодульКасса БАР SWIP Яндекс Деньги 🖥 К У Б LIFE ЭВОТОР 💽 futubank 🌔 onlinePay Рау 🗗 🗏 Мой Кассир к нтур. бухгалтерия w pay ubonk WINPAY Pay F **Financial Marketplace** PAYQR 2can cloud Пэй-ап.Платежи Co Яндекс Касса <u>– banki.ru Co</u>нансовая Investments 💋 sravni.ru 🔍 CreditHub Mycreditinfo Yango 🖹 МодульДеньги 🗾 SIMPLE INVEST Ο Hilli 📶 🥃 FREEDOM 24 🚩 Yammi Юником 24 6 ЕСИА FIXRISK Fins RIGHT tokenbox Lending 🚺 Karma Тезис 老 zaymigo 🚫 webbankir 🛛 🗱 InsurTech = penenza best Prosto.Insure 🍁 МЕДО Kredito24 СРАВНИКУПИ СтраховойКабинет IOKKA Leanberry Crowdfunding MoneyMan 댥 До Зарплаты Яндекс Деньги StartTrack () planeta-ru 🥐 капуста 🛛 CRED IT Я.Соберу MONEY QIWI BOOMSTARTER **Personal Finance Management** nupc FAN.MDNEY ПРОГРЕССКАРД CoinKeeper 🔇 keepsoft Process Automatization OI DATA FABRIC <> apibank VisionLabs FSCORELAB A FreshDoc O platform **Loyalty Management** MINDSCORE C BLOCKCHAIN 🔊 Кошелёк SBER **БООД РАҮ**2U Smart Engines LoyaltyLab

Fintech Ecosystem Map (2 out 2)

Payments



Regulator



VC



Associations and Unions



Education



Federal Legislative Bodies



Accelerators & Incubators





Kazakhstan



Ainur Zhanturina Head of Fintech Competence Center



Dias Bexoltan Deputy Chairman of the Board



Kazakhstan at Glance

GDP growth (y-o-y): 4.5%

Population: 18.7 million



Inflation: 5.2%

FDI inflow (of GDP): 15.8%

Global Innovation Index (2019): 79th

Mobile connections: 136%

- E-commerce market volume: 3.7%
- Digital literacy: 82.1%

Policy

The National Bank of Kazakhstan (NBK) and, the Agency on Regulation and Development of the financial market of Kazakhstan (Financial Agency)

In July 2018, by virtue of amendments to the Law of the Republic of Kazakhstan "On the National Bank of the Republic of Kazakhstan", a "special regulatory regime", i.e. a regulatory sandbox was launched by the NBK. With the formation of a Financial Agency in November 2019, the competences of both financial regulators of Kazakhstan have been assigned regarding the regulatory sandbox as follows: the NBK has introduced a special regulatory regime regarding payment organizations and/or other legal entities not being financial organizations for the purposes of providing payment services, and regulates their activities within its remits; and the Financial Agency has introduced a special regulatory regime regarding the financial organization and/ or other legal entities, and regulates their activities within its remits.

AIFC regulatory sandbox – Fintech Lab

AIFC's financial services regulator, the Astana Financial Services Authority (AFSA) is fostering financial innovation in AIFC and the wider region, and it strives to establish a favorable regulatory environment for fintech enterprises. AFSA is independent of the Kazakhstani financial regulators, i.e. the NBK and Financial Agency.

In January 2018, AFSA launched the first regulatory sandbox in the region called the "Fintech Lab", which allows firms to test out and develop innovative products, and services under a special regulatory regime with tailor-made regulatory requirements applicable for each individual firm. In addition, Fintech Lab participant firms may also obtain individual guidance from the regulator about how the rules are applied to new business models and innovative financial services. Currently, there are 26 firms that have been accepted to the Fintech Lab in total from 11 jurisdictions, offering 7 different types of innovative financial services.

Sources: Ministry of National Economy of the Republic of Kazakhstan Statistics Committee; Global Innovation Index; Ministry of Digital Development, Innovation and Aerospace Industry.

AIFC Regulations on Fintech

In July 2018, the AFSA developed the legal framework to regulate the activities, related to operations with Digital Assets such as: operating crypto-exchanges; providing custody of digital assets; and Initial Coin Offerings (ICOs).

Crowdfunding Framework

In June 2019, the AFSA with the support of European Bank for Reconstruction and Development (EBRD), and the leading UK law firm, Clifford Chance LLP has developed, and introduced a regulatory framework for loan- and investment-based crowdfunding platforms in the AIFC.

Framework on Extension of Regulated and Market Activities

In January 2020, the AFSA extended the list of regulated activities in the AIFC (two new Regulated and three new Market Activities, such as: operating payment systems, operating a multilateral trading facility, etc. were introduced). The AFSA's priorities in 2020 will include further strengthening of the fintech regulatory environment. Upcoming initiatives will cover the development of the Frameworks on E-Money and Payment services, Mobile/Digital Banking, Venture capital financing, IP rights, E-commerce, and others.

Global Financial Innovation Network (GFIN)

AFSA is a member of the GFIN Coordination Group, which is a supreme body in designing the regulatory policies of the network functioning. During 2019, AFSA participated in the pilot phase of GFIN's cross-border sandbox testing workstream, which provides opportunity for fintech firms to apply for testing innovative financial services in multiple jurisdictions, including the AIFC, UK, Hong Kong and Singapore, and to gain real-time insight into how a product or service might operate in those markets. The next cohort of crossborder testing is anticipated in the 1st half of 2020.



Infrastructure Development

The NBK is working to create Open API standards and regulations for commercial banks in Kazakhstan. The NBK, within the framework of the "Digital Kazakhstan" state program, plans to launch the "Implementation of regulation regarding the creation of open platforms (Open API) in the financial industry" project. It aims to boost competition in the financial market by young fintech-challengers.

The implementation of the project will stimulate fintech companies' development, simplify the procedures of the interaction of customers with financial market participants and fintech companies, and ensure geographic accessibility. The project has software which requires a description of the interaction between participants, the composition of transmitted data, and examples of transmitted messages.

A number of legislative initiatives have been launched 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 have started to be actively drafted.

In June 2020, the presentation of **Concept** on the use of digital technologies in the financial sector was held by the National Bank of Kazakhstan, and the Agency for Regulation and Development of the Financial Market. The purpose of the Concept is to create an environment for the development of innovations, stimulate collaboration between market participants and build a friendly environment for fintech areas. The concept will be implemented in three stages from 2020 to 2025:

- 2020-2021: the anti-crisis agenda and creation of Foundation for digital infrastructure;
- 2022-2023: creation of the regulatory framework and building the main elements of the digital infrastructure;
- In 2024-2025, further development of digital financial infrastructure. This includes the launching of a national digital currency, expanding the Open API services and Open banking infrastructure, expanding opportunities for cross-border payments within the framework of the EEU, and built-in cybersecurity mechanisms in the financial market area. The project includes three main areas – "Digital Regulator", "Digital Infrastructure" and "Living Environment".

Access to Capital

Although the venture capital market in Kazakhstan has not taken shape yet, the government encourages development of venture investment institutions. Both legislative and investment measures have been taken to achieve this. The Government of Kazakhstan is focusing on the development of a regulatory framework for venture financing. Therefore, Law No. 174-VI "On Amendments and Additions to Some Legislative Acts of the Republic of Kazakhstan on Venture Financing Issues" dated July 4, 2018, approved the basic concepts such as venture financing, venture capital fund, venture manager; as well as the definition of the legal form of funds.

A year later, the Government established the **QazTech Ventures JSC**. It is a state company that promotes venture financing tools, venture capital funds support and, the best practices and analysis of the venture capital market. The QazTech Ventures signed an agreement totaling 50 million USD with the **Singaporean Fund - Quest Venture Asia Fund II (QVAF II).** QazTech Ventures will join it as an anchor investor with 10 million USD of capital. According to the agreement, the mutually created fund will finance promising startups in Kazakhstan and Central Asia over the next three years. August 2020 was marked by the launch of an acceleration program **Kazakhstan Digital Accelerator** with a representative office in Nur-Sultan. This program is designed for 2020-2022. Within the framework of this program, Kazakhstan projects will be selected and financed in the amount of up to 150 thousand US dollars.

The QazTech Ventures also signed an agreement with the **500 Startups**, a USbased venture fund. For USD 10 million with further financing of Kazakhstani startups, it joined **the 500 Startups' V Global Fund**. The total size of the Fund is USD 150 million.

QazAngels is the first Kazakhstan Business Angels Club, which brings together entrepreneurs and investors to find startups for joint investments. This is a community of successful businessmen and private investors, who unite in order to jointly invest in new and interesting projects and start-ups in Kazakhstan.

AIFC VC Support is a non-profit initiative under the state-owned center AIFC, providing 360-degree professional assistance, support and representation services to recognized worldwide VCs, interested in fintech ventures in Russia, the CIS and Caucasus region. Fintech Hub AIFC aims to develop VCs presence in the region and to support regional fintech ventures by the means of providing transparent bridging and supporting services.

Disclosed M&A Deals

Startup	Market	Amount	Investors
Chocofamily Holding	E-commerce	\$8M+	private investors
ToiDriver/CTOgram	Marketplace	\$200k	private investors
Arbuz.kz	E-Commerce, Retail	\$500k	private investors
Naimi.kz	Marketplace	\$1M+	private investors
Smart Satu	B2B SaaS	\$5.3M+	Asadel Venture, private investors
Nommi	Telco, Retail	\$430k	private investors, SkyBridge, crowdfunding
ReKassa	Fintech	Na	private investor
GUL	E-commerce, marketplace	\$50k	private investor
Asistent.kz	Fintech	\$31.5k	TechGarden
Landau	Fintech	\$31.5k	TechGarden
Tole	Fintech	\$31.5k	TechGarden
Linguahub	Fintech	\$31.5k	TechGarden
Coster	Fintech	\$31.5k	TechGarden
Smart заправка	Smart City	\$31.5k	TechGarden
Aida service	Fintech	\$31.5k	TechGarden
Baisal	Fintech	\$31.5k	TechGarden
Onlinepolis.kz	Fintech	\$31.5k	TechGarden
MOSST	Fintech	\$31.5k	TechGarden
Bnesis	Fintech	\$31.5k	TechGarden
PandaMoney	Fintech	\$31.5k	TechGarden
Vezu.kz	Fintech	\$31.5k	TechGarden

Source: QazTechVentures, AIFC analysis

Talent Development

At present, the level of digital literacy is 82.1% and it is predicted that it will increase in the coming years. Today, there are already a number of initiatives that develop talent in fintech & ICT sectors:

- Several universities have fintech courses (ENU, KBTU);
- Launch of Master's degree programs in fintech in SDU;
- In 2019-2020, about 19 thousand university education grants were allocated in the field of ICT;
- Opening of Astana IT University in 2019;
- Programming schools like QWANT, Alem and Method;
- 39 R&D labs in the country;
- Acceleration & incubation programs.

QWANT is a totally online tech school that currently focuses on software engineering, data science and full stack development. Unlike a bootcamp or a computer science degree, the programs are 6-12 months in length but train to software engineering standards of top tier tech companies out of Silicon Valley through active learning methodology. QWANT is an initiative created by the Bureau for Continuing Professional Development and the AIFC.

Astana Hub & Zerde National Info-Communication Holding

Astana Hub's mission is to support hightech projects and develop the startup culture in Kazakhstan. Astana Hub members receive tax exemptions (CIT, VAT, PIT and social tax for non-residents) and apply a simplified procedure for obtaining a work visa for foreign workers. Zerde National Info-communication Holding was created to develop modern info-communication technologies and to make ICT a competitive field in Kazakhstan. To date, the hub has given rise to 250 IT companies, nearly 700 start-ups, 17 research and development centers, involving domestic and foreign IT companies, and the Alem programming school. In 2019, Astana Hub organized more than 530 events, attended by approximately 17000 visitors.

Techgarden

Techgarden innovation cluster is a professional environment for developing new technology for businesses based on the mutually beneficial cooperation between businesses, startups, investors, educational and research institutions. Services include: strategic consulting, development of startups for the next development stage with the aim of accessing foreign markets, assistance in cooperation with major companies in Kazakhstan and the CIS.

MOST

Business-incubator MOST is the first private incubator in Kazakhstan. MOST supports startups, and new entrepreneurs at all stages of business development from developing an idea to implementing it through the commercial and government programs, which are represented by competitions and training, forums, educational programs, presentations of business projects to investors, mentoring initiatives, meetups on innovation and market trends, and leading the research. The company is an official member of such organizations as: Youth Business International, Global Entrepreneurship Week, Techstars (Startup Weekend/ Week), Global Innovation of Science and Technology, VentureWell, and the Swiss group of companies Seedstars World and Get in the Ring.

AIFC Fintech Startup Support

The AIFC Fintech has been supporting both mature and early stage fintech companies through its startup support programs:

- 6 startups support programs including incubation and acceleration programs;
- more than 120 start-ups from Kazakhstan and other countries have been supported;
- 21 of these startups were represented at internationally recognised competitions and one of them won a competition, held at the Abu Dhabi Fintech Forum.



- Fintech AIFC in partnership with Startup Bootcamp Fintech held a regional competition for startups in Central Asia. 3 startups made it to the final and passed the acceleration program in Dubai. AIFC used its network to provide competent experts for the jury and startups on growth stage for Unicorn Battle. Biometric, a member of Fintech Hub, won the competition and will make a marketing pitch in Silicon Valley.
- 3 startups from Central Asia entered into the world playbook of Plug and Play – the largest investor, accelerator and corporate innovation platform.

Local Start-up Support Activities:

- launch of the Visa Everywhere Initiative with 93 applications;
- together with the Swiss Seedstars Foundation AIFC launched the international acceleration program "FintechStars" (144 applications);
- an online mentoring platform;
- educational programs, including webinars, fintech courses, workshops, master classes, etc.;
- access to international startup support programs;
- free coworking space.

Demand

Growing demand for innovative financial products and services, in particular, from the population 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 are the most significant factors in the fintech market's development in Kazakhstan.

The geographic outreach of the banking sector and relatively high interest rates remain as constraints, especially for SMEs, which generally report more difficulty than the large companies in obtaining loans from banks. Banks prefer larger commercial clients, which are generally more profitable and can offer more guarantees.

Fintech solutions, therefore, could improve the SMEs' access to financial services and create the incentives for their higher efficiency. A few examples of Central Asian fintech startups that are already in the market with real customers include:

- Marta, a mobile acquiring service for SMEs without an internet connection. It offers a mobile terminal, which can be linked with a smartphone and accept payments from Visa, MasterCard and UnionPay cards;
- reKASSA, a fiscal cash register in a free smartphone app; and
- LendingStar, a financial platform where SMEs can sell their receivables and get low-cost financing for their operations.

New forms of innovative financing, such as peer-to-peer lending and crowdsourced equity funding, can also increase the financing options available to SMEs. These lending instruments are limited in Kazakhstan. One of the crowdfunding platforms in Kazakhstan is iKapitalist, which enables individuals and companies to provide financing directly, supporting growth of small and medium business in Kazakhstan.

The fast-growing e-commerce market in Kazakhstan is also one of the drivers of fintech development. Volumes of the e-commerce market have been steadily expanding in the country with the rates of internet and mobile penetration increasing and digital payment infrastructure hence being widely improved. In 2019, the number of online buyers has increased by 1.3 times. The volume of electronic commerce in the total volume of retail trade increased 4 times in 2 years. Kazakhstan's e-commerce market at the end of 2019 was USD 2.143.4 million and nearly 54% of this amount was in the domestic e-commerce market.



Payment Methods in Domestic E-commerce Market

Source: QazTechVentures, AIFC analysis

Internet and mobile penetration rates have significantly increased in the region over the past few years. Banks are leveraging mobile and internet banking to provide better financial access in the remote and rural areas. Low access to the formal financial sector but high and increasing mobile, and internet penetration provide a massive opportunity for fintech companies in the region to offer financial services to traditionally underserved segments.

In 2019, the volume of digital payments in Kazakhstan increased by more than 2 times and amounted to about USD 34.8 billion. The growth was due to the Kaspi.kz strategy (see Kaspi's case on the next page), development of the infrastructure of trading POS-terminals, the entry of Apple Pay and Samsung Pay into the markets of Kazakhstan, further encouragement for cashless payments bonuses and cashback, as well as the active use of cashless payments on all types of the public transportation. Kazakhstan is developing its policy towards the fostering and development of a digital economy and innovations. The "Digital Kazakhstan" state program envisages the development of the economy through the diversification and development of alternative financing strategy engaging fintech. The objective of the program is to accelerate the pace of the country's economic development and improve quality of life for the population, using digital technologies in the medium term and ensuring the creation of a digital economy in the long-term.

Volume of non-cash payments, bln USD



Source: National Bank of Kazakhstan, AIFC estimates, Kaspi.kz

Cashless Payments by the Operation Environment



Source: National Bank of Kazakhstan

Cashless payments by international and local systems, bln USD



Source: National Bank of Kazakhstan

😭 Kaspi.kz

JSC "Kaspi.kz" is the largest Payments, Marketplace and fintech Ecosystem in Kazakhstan with a leading market share in each of its key products and services.

The Company is revolutionizing the way people pay, shop and manage their personal finances with their popular Kaspi.kz Mobile App, which currently has over **6 million users** and has become an integral part of their daily lives.

The initial hook was payments, allowing users to pay P2P to both friends and small businesses, pay bills, and send gift payments. But overtime, the app has fleshed out its offering. It lets users log onto their tax accounts through the app, pay their bills, and purchase items – be that household appliances or loans – through its marketplace, with the option of paying in instalments. In 2019, Kaspi made a 515 mln USD profit (74 mln USD marketplace, 369 mln USD fintech platform and 73 mln USD payments business). Kaspi.kz Mobile App has become the leading mobile app in Kazakhstan, with Monthly Active Users has increased by 2.9 million to 6.0 million in December 2019 from 3.1 million in December 2018. Kaspi had a **32%** market share in consumer lending in 2019, **46%** in ecommerce and was number **one** by growth in the country's savings sector.



Expert opinion

Amyrkhan Chikanayev AIFC Fintech Expert



The fintech development framework has no universal or golden standard and varies across countries and regions. It depends on many factors such as the local regulatory environment, government support, banking sector development, level of unbanked population, mobile phone and internet penetration, venture capital access, human capital and more.

The combination of these factors may define the extent, pace and pattern of fintech development in a selected country or region. For instance, a favorable regulatory environment, sizeable unbanked population, developed venture capital market and advanced network infrastructure could be the right "recipe" for stand-alone Fintech developments and new business models. On the other hand, poor access to venture capital may shift the fintech developments closer to the banking sector.

The point is, that Fintech development could be viewed as either disruptive or complementary. The first type is all about disruptive technology solutions and new concepts applied in the financial sector. Backed with independent venture capital the fintech cluster may oppose itself to conventional banking sector. The "complementary" type, on the other hand, is a different story. The Fintech players are dependent on conventional banks. Fintech cluster develops for and around the banks, by introducing innovative technological solutions and products into their business processes and operational activities.

Kazakhstan is no different and has its own fintech development specifics. Admittedly the venture capital market is in its early evolving stages. As such, disruptive fintech unicorns have little chances of emerging in the near future. By contrast, the "complementary" fintech development has great potential to evolve. Strong competition in the banking sector has the potential to boost the development of a fintech cluster. Local fintech firms may do better if they put their disruptive ambitions on hold and turn their eyes on to the real budgets.

Expert opinion

Alexey Sidorov CEO and co-founder, Silkway Ventures Group



The opportunities for building fintech ventures in Kazakhstan are abundant. On the one hand, the high percentage of underbanked consumers in both retail and SME segment and low population density make it less attractive to build brick-and-mortar infrastructure for incumbent financial institutions. On the other hand, there is well developed and digitalised infrastructure in banking, payment processing and e-government services. Thus, fintechs can utilise that to create products and services in collaboration with traditional financial institutions.

On the downside, I think three critical hurdles for the growth of fintech in Central Asia are 1) lack of venture capital and angel investments as means of supporting local entrepreneurs 2) nascent regulatory framework governing some but not all fintech business models that require further development 3) perception of the local market in terms of the small size of consumer population and level of ecosystem development by outside players does not encourage them to enter the market and bring the expertise and capital.
Fintech Startup Map



53 fintech startups in Kazakhstan



90% of the 53 fintech startups were founded in the past 3 years



Payments (19%), **Accounting** (15%) and **Lending** (15%) as the most popular segments



According to **Startup Genome**, Nur-Sultan ranks II in terms of fast-growing startup ecosystems



Fintech Ecosystem Map





UAFIC

Rostyslav Dyuk Chairman of the Board

Ruslan Kostetsky Deputy Chairman





Ukraine at Glance

GDP growth (y-o-y): 3.2%

GDP per capita: USD 3,503



Population: 41.9 million

Global Innovation Index: 47th

☆ 23 000 technical professionals graduating annually

- Internet penetration: 71%
- Mobile connections: 139%
- Share of IT industry in the GDP: 4%
- 200K developers

Fintech Development in Ukraine

The number of fintech companies in Ukraine is steadily increasing. In 2018, **21** new startups entered the market. Overall, above **100** fintech companies are operating in Ukraine to date, with more than half of them founded over the past three years.

The favorable growth dynamics in the sector is driven by several major reasons as follows:

 Global trends. Financial technologies have remained the topic of interest worldwide over recent years, this has developed an interest in fintech in Ukraine as well;

• Absence of global players.

Imperfection of legislation makes it difficult for foreign companies to enter the Ukrainian market while the drop in the purchasing power due to the economic crisis of 2014-2015 has temporarily made the Ukrainian market neglected.

- The absence of global players provides space for the development of local projects, which otherwise would immediately have to compete with powerful companies;
- Banking sector clean up. This process was necessary to lay the foundation for a sustainable financial system, but it has had several side effects, notably the loss of work by many bank specialists;
- At the same time, some of them have been employed by fintech companies or founded their own, that in its turn also accelerated the market development;
- Readiness of traditional players to cooperate with fintechs.

Sources: State Statistics Service of Ukraine; Global Innovation Index; World Bank Open Data.

Regulation & Governmental Support

In 2018, the relevance of market development gained support at the government level, with initial steps taken towards the sector:

- The financial sector regulators incorporated the fintech development to the Comprehensive Program of Ukraine Financial Sector Development until 2020;
- 2. The Cabinet of Ministers launched the Ukrainian National Startup Fund with a budget of 15 million USD;
- 3. The Cabinet of Ministers defined financial technologies and cashless payments among the primary objectives of the Concept for the Development of the Digital Economy and Society of Ukraine for 2018-2020;
- 4. In April 2019, the National Bank of Ukraine (NBU) established its Expert Council on Communications with Innovative Companies. This will enable the National Bank to understand the requirements and the development directions of an innovative financial market, while for innovative companies, the peculiarities of the current regulatory and legislative framework.

Industry Growth and Development

According to our estimates, the fintech industry growth tendency shall remain flat with about 20-30 new companies entering the market. This will give an impetus to the ecosystem development in general, and particularly heighten the interest of investors (including international) and drive the growth of incubators and accelerators facilitating those young teams about to hit the market.

In recent years, the Ukrainian market has seen the launch of new companies operating not only in highly mature areas like payments, but also in more immature subsectors of personal financial management, Insurtech, Regtech, etc. These are promising areas expected to see significant growth in the near future.

Stages of development

Most Ukrainian fintech companies are at the stage of business scaling-up (48%) or market launch (24%), and only one in five is a mature business. 57% of companies operate exclusively in the domestic market. However, most of them — 73% — are planning to expand geographically and start working overseas as well. Companies founded since the beginning of 2018 are more globally oriented: only 43% of them operate exclusively in Ukraine.

Financing

In Ukraine, about 63% of fintech companies (both startups and mature companies) are operational, profitable and work without attracting funds from third-party investors. And for the companies established since 2018, these metrics exceed 70%. Such figures are generally in line with global trends, while some discrepancies may be attributed to a relatively small number of fintech startups in Ukraine. Funding sources for fundraising companies are distributed evenly between private investors and venture capital funds. Almost one fifth of companies continue to rely exclusively on their own funds. 22% of companies in the market do not plan to attract additional funding at all. Others rely mainly on private investors and venture capital funds.

Financing

Since 2010, we have seen a persistent trend for most fintech companies operating to serve the needs of different businesses (B2B models). At present, the share of such companies is 37% for SMEs and large businesses. The retail mass market ranks at 21% in the business lines of fintech companies, while the premium segment for private individuals is represented by only 6%. Today one-offs — like commissions and licenses - are still dominate among revenue models. At the same time, we see a tendency to increase the popularity of the transactions model, subscriptions (regular payments), freemium, etc.

Geography

The vast majority of Ukrainian fintech companies have headquarters located in Kyiv. Others are based in Dnipro, Odesa, Kharkiv, Rivne and Lviv, but overall regional fintech companies represent less than 20%.

To date, 57% of companies operate exclusively in the domestic market. However, most of them — 73% — are planning to expand geographically and start to work overseas as well.

A number of companies noted that their export is hindered by a lack of international relations, ignorance of law and a lack of knowledge of business specifics and local contexts in certain foreign markets. There is no support offered for export strategy development in Ukraine, as opposed to the countries with mature ecosystems and this impairs the ability of Ukrainian startups to compete in the international market.

Companies founded since the beginning of 2018 are more globally oriented: only 43% of them operate exclusively in Ukraine.

In general, the companies providing services not only in Ukraine are mostly focused on the European market, followed by the post-Soviet countries and the USA. The markets of Asia and Africa are of the least interest for domestic fintech companies.

Banks and Fintech

Ukrainian banks are going ahead with the process of transforming their business models. In this context, the interest of banks in financial technology is constantly rising. The NBU governors also keep warning banks to be ready for new challenges.

According to the survey conducted by the UAFIC, banks are more likely to conduct joint projects with fintech companies rather than to develop their own «innovation centers». First of all, this is due to the fairly high cost of maintaining an in-house team.

Moreover, joint projects are often implemented on a profit-sharing basis, which enables banks to avoid unnecessary investment costs and minimize the risk of product launch failures. For the most part, banks are betting either on their own incubation/acceleration programs, or on the «innovation centers».

Those surveyed estimated the prospects of cooperation between fintech companies and the banks in Ukraine in a broadly varying way – from zero prospects to active cooperation opportunities. Most agree that cooperation will take place indeed, still giving the fintech the role of end-user service providers, while infrastructure solutions would mostly be left to the banks. We expect the main areas of cooperation between banks and fintech companies in the coming year to be as follows:

- payment services,
- artificial intelligence systems,
- big data,
- business process automation,
- cybersecurity.

Barriers

According to the respondents, the main problems hampering the fintech market development in Ukraine are as follows: over-regulation, lack of the legal basis (e.g., remote customer identification, in particular, video identification) and the low financial literacy of the population. Similar problems have been reported by a number of fintech companies.

At the same time, banks warn of the low solvency of the population, while fintech companies claim that bank conservatism is a significant factor hampering market development.

Changes in Legislation

In 2018 Ukraine made regulatory changes, which should have a positive impact on the financial markets generally and specifically on the fintech sector. Many of them were implemented on the initiative of the NBU, within the framework of the Complex Program for the Development of the Financial Sector of Ukraine until 2020.

Currency Legislation

As a result of the adoption of the Law On Currency and Currency Transactions in February 2019, more than 20 significant changes have been introduced with respect to currency transactions, which in effect establishes the principle that «all which is not forbidden is allowed». Among the main innovations are:

- individual licenses for currency transactions have been canceled, they will be replaced with a system of limits;
- individuals are allowed to buy currencies online;
- the limit on investments by legal entities and individuals abroad has been increased;
- the procedure for the repatriation of dividends has been changed;
- provides for the issue of permanent licenses for currency transactions (particularly for the transfer of funds), which will allow participants in the payments market to provide services for the transfer of funds in a foreign currency without a time limit.

Remote Identification

The Law on Electronic Trust Services enables using the BankID service, which establishes remote client electronic identification. The main advantages in implementing this procedure are:

- ability to open bank accounts in other banks and receive loans online;
- simplified access to governmental and administrative services, and assistance throughout Ukraine, not only in cities with populations of more than 1 million residents;
- less paperwork in the administrative sector;
- the possibility of beginning remote trading in securities;
- ability to register and transfer mobile numbers between operators, including registration services to prevent fraudulent operations with accounts.

PSD 2

The regulator intends to harmonize national payment legislation with European legislation in accordance with the requirements of the EU Association Agreement. This applies, in particular, to the implementation process of the rules of the European directive PSD2 (respecting Open Banking) within national legislation, which will increase competition in the financial market and will promote the innovative development of the domestic payment market.

Expert opinion

Vira Platonova Senior Vice President, Group Country Manager for CIS and South East Europe, Visa



Today there are huge opportunities for fintech solutions that combine the reach and user experience of digital channels with powerful software solutions to help connect the un-banked financial products to trusted ones available in the market. As a global leader in payment technologies, Visa strives to ensure an effective connection between fintech companies generating innovative ideas and traditional players of the financial system in order to continue providing clients and customers with new, accessible and secure payment solutions. Visa is focusing its efforts on three key areas: investment, partnership and engagement.

In terms of investment, Visa continuously invests in fintech companies that have the potential to advance digital payments. Recent global fintech investments include Klarna, Paidy, Marqeta, PayStack and others. When it comes to partnership, Visa has collaborated with multiple companies and startups to develop new payment solutions for customers and businesses based on the VisaNet global technology network. Our partners include companies such as Yellow Pepper, Novo Payment, Stripe, Conductor, Flutterwave, Revolut and more.

On engagement, Visa is an active initiator of a broad range of programs for promotion and further development of innovation for the community of talented entrepreneurs. This year, we are introducing the Visa Everywhere Initiative in our region – a global program to support the development of fintech startups. We encourage companies to join this project. Visa co-designed and funded The Inclusive Fintech 50 competition. This was created to recognize promising early-stage startups that have not yet received due attention for bringing innovation to financially underserved communities. The winners include some truly innovative solutions helping build credit histories, manage personal finances, access insurance, prove identity and make safe and quick payments. We encourage Ukrainian fintech companies to unlock their potential as well as develop new business models and innovative solutions.

Fintech Ecosystem Map (1 out 3)

reditor

Turn Key Lender

ccloan

SPOKK

er your new

FINIK.PRO

Uplata





Fintech Ecosystem Map (2 out 3)



Skyservice

Fintech Ecosystem Map (3 out 3)







Sasha Sternik Head Investment Manager of IT Park



Siroj (Sam) Boboev



Uzbekistan at Glance

GDP growth (y-o-y): 5.5%

GDP per capita: 2027 USD

Population: 33.5 million

🗂 Inflation: 13.6%

FDI inflow (of GDP): 4%

 Internet penetration: 66%
Mobile penetration: 96%
Banking penetration: 40%
Ecommerce market volume (of GDP): 0.7%

Key Findings

- The fintech industry in Uzbekistan has been developing amid relatively low internet penetration, a lack of regulation and an absence of trust in the traditional banks among the population, where more than half of adults are unbanked.
- The point of entry to the internet for the population is almost exclusively mobile. So, digital banking services in the form of mobile applications, mobile payments and peer-to-peer transfers are developing fast and highly competitive.
- The key players are Uzcard and Humo as card providers, and CLICK, Payme and PAYNET among non-banking payment providers.
- E-commerce is underdeveloped and relies on cash payments.

- Government support is focused on blockchain and crypto currencies, this segment is the most advanced in regulation and is attracting foreign investment.
- Currency exchange is still not free, although significantly liberated comparing to 2018; no financial trading, crowdfunding and other services unrelated to payments exist due to the lack of regulation (except crypto currencies); but the regulation situation is changing fast.
- Micro-lending startups are emerging.
- The venture ecosystem is in the beginning stages and access to capital is almost of non-existent.
- Tax exemption for IT startups is available and a state-supported ecosystem for talent development and startup acceleration/incubation is beginning to form.

Sources: Ministry for Development of Information Technologies and Communications of the Republic of Uzbekistan; Global Innovation Index; World Bank Open Data.

Internet and IT infrastructure

The country is working on the development of its digital infrastructure. The bandwidth of the international communication channel has been brought up to 1,200 Gbit / s. Over the past three years, the cost of services for operators and providers has been reduced from 91.5 to 5.9 USD, which has increased the number of Internet users to 22 million, including 19 million mobile Internet users. Fiber-optic communication lines with a connection speed of 200 and 40 Gbit / s, respectively, were brought to each regional and district centers. The total length of fiber-optic communication lines is 36.6 thousand km. Of which 10 thousand km was laid in 2019. Mobile communication coverage reaches 96% of settlements, including the possibility of high-speed Internet access in the territory of 70% of settlements.

Financial services landscape

The key driver of the fintech revolution was the lack of trust in the local banks: the majority of the country's population were not bank users. The root causes of the banking malaise were the oldfashioned management model, obsolete technologies and poor risk handling. The banking industry has been stagnating and lacking innovation; financial institutions in Uzbekistan have been and still are working around cash turnover. According to the World Bank, more than half of adults are unbanked; so, digital payments allow incumbent banks to gain access to this blue ocean customer segment through competitive pricing and comfortable online services.

Online customer service appeared first as internet-banking for legal entities. It didn't meet expectations: all the data was structured by banking products, customers weren't eager to be dependent on poorly reliable internet connections, and for some of the operations (foreign currency payments) they were anyway obliged to visit bank branches. Thus, banks became hostages to their vertically integrated system, built around separate banking products and business processes.



Regulation

The Central Bank of Uzbekistan is a regulatory body of the fintech and banking sectors. Uzbekistan officially headed for the development of digital banking. The term "digital bank" first appeared in the regulatory framework of Uzbekistan in January 2018, in a presidential decree "On measures to fundamentally improve the activities of the Central Bank of the Republic of Uzbekistan". As stated in the document, a digital bank is a bank or its structural unit that provides banking services remotely, using innovative banking technologies (without cash services). One of the main tasks of the Central Bank of Uzbekistan is the improvement of remote banking services through innovative banking technologies.

Right now, the fintech market is transitioning to its next development stage, as the Central Bank of Uzbekistan has recently (February 2020) issued a new regulation that differentiates payment companies from other types of financial companies, which has created new opportunities for them. Now payment companies are allowed to issue cards, provide loans and directly sign contracts with vendors (before they had to operate only through an intermediary bank). Since February, several payment companies have already acquired licenses. The government is currently working on updating the legal system in all possible ways, including fintech regulations. At the moment, however, there is a general focus towards the development of crypto-related startups and blockchain technology. Lack of the regulatory acts are preventing or slowing down venture investments, all kinds of trading except crypto, projects such as platforms for crowdfunding and other related services. Though the situation is changing pretty fast and many necessary acts are expected to arrive during the next 12 months.

An important factor is the existing restrictions on the currency exchange. After the abolition of the prohibition and introduction of the free market rate of the soum in 2018, the black market ceased to exist but purchasing of the foreign currency is still limited and highly controlled. Non-residents (private persons) have no access to cashless exchange and should provide proof of source for cash soum amounts presented for exchange; residents can convert money in bank apps, companies apply for permission to make each foreign currency payment for importing goods or services

Fintech Market Overview

The fintech ecosystem of Uzbekistan is represented by 2 payment processing services, Humo & UZcard, more than 10 payment companies including two owned by telecom companies, more than 28 mobile banking applications and one digital bank. Another digital bank is to be established soon.

Digital Banking

The sector is in its beginning stage and is lagging behind the rest of the world. Traditional banks are still the main players. Most banks have launched their mobile applications for online banking; popular services include: Kapital Bank with its Apelsin mobile app and Aloqa Bank with its online application.

Positive changes in the banking sector and the country's investment climate are attracting foreign banks to the market. In 2019, "TBC Bank" from Georgia entered the market through the acquisition of 51% of the payment company Payme. The main goal of the company is to create the first fully digital bank in the country. Also, the Central Bank announced on March 9, 2020 its plans to launch a local fully digital bank on the basis of the Anor instant payment system, which maintains 24/7 real-time interbank money transfers between legal entities and individual entrepreneurs.

Still, there are barriers to the development of fintech in the country. Some of them are the government ownership of most banks, poor and old-fashioned management styles, and a monopoly in the market. For example, until recently the Unified Republican Processing Center brand Uzcard was the only provider of interbank processing. However, after the failure of the system in 2018 that affected all Uzcard debit cardholders and halted all payments in the country, including mobile payment services, for more than 19 hours, the Central Bank of Uzbekistan created the National Interbank Processing Centre brand HUMO as a competitor to Uzcard.

Payments and P2P Transfers

As the number of mobile phones increased in the country, non-bank fintech companies started to emerge and take advantage of this momentum. CLICK, one of the most successful payment companies in Uzbekistan, soon started offering USSD mobile payments. At the moment, the company has a wide variety of products including a mobile application and telegram bot, and accounts for 75% peer-to-peer transfers in the country. Other fintech pioneers are PAYNET with more than 20,000 payment kiosks all over the country and Payme, that started offering the first Peer-to-Peer transfers through its mobile application in 2013.

However, despite the rapid growth in digital payments, which are projected to grow by almost 12% year on year from 2019 to 2023, this is still a very small part of the entire economy, with a transaction volume of only USD 1.7 billion compared with a GDP of USD 55 billion. With the novel IT infrastructure the fintech companies and digital banks will improve risk management and achieve a ROI significantly higher than the incumbents, as well as launch "RegTech" (the management of regulatory monitoring, reporting, and compliance) to follow in real time the constantly changing banking regulations.

Blockchain and Digital Currencies

The prospects of those in Uzbekistan are estimated as very promising. The President's decree dated September 2, 2018, formed the basis for the free activity of companies in the sphere of crypto-asset sales and blockchain technologies. As a result, on January 20, 2020, the South Korean Kobea Group launched the UzNEX crypto exchange in Uzbekistan, the first one in Central Asia. The exchange will use the soum, credit cards, and US dollars in trading.

Moreover, such technologies are being implemented in the public sector via a public-private partnership. The state has established the Digital Trust Fund to handle the management of developing strategic projects based on blockchain, attracting investments and startups, entering public-private partnerships and supporting activities developing the blockchain ecosystem (including training, events, etc.)

E-commerce is still underdeveloped in Uzbekistan, and is only now is starting to become a priority. In 2019, e-commerce accounted for 0.7% of the total retail market in Uzbekistan, slowly growing from 0.6% in 2018 and 0.5% in 2017. Compared to Kazakhstan and Russia, where these shares were 3.5% and 7.2% in 2019, e-commerce in Uzbekistan is still under development.

In May 2018, the President signed the decree titled "On measures for the accelerated development of e-commerce" and approved the "Program for the Development of E-commerce in Uzbekistan for 2018-2021". As a result, the market is expected to grow significantly in the next few years. Nevertheless, given that e-commerce is still rather uncharted in Uzbekistan, there aren't any official numbers on the market value or revenue.

The capital, Tashkent, is currently the only viable e-commerce market in the country. However, the COVID-19 lockdown has accelerated online purchases. Also, while mobile e-commerce is not widespread in Uzbekistan, increasing mobile internet access is contributing to the potential for e-commerce growth.

Fintech Trends and Demand

Overall, the financial technology sector is red-hot with traditional financial institutions and, startups competing to offer digital financial products faster and more efficiently.

Customers have embraced the idea of on-demand finance. The new generation of users expects full service available online and wants to have all their needs addressed by single identification, through one application. The payment companies and few banks trying to provide this, are quickly gaining popularity. Payment companies possess the first-mover advantage in this. They are winning users through integrating most of their services into everyday life by unifying different payments, expense monitoring, peer-topeer transfers and the option to attach all banking cards to the application.

The increasing use of internet services and competition among internet providers is driving down connection costs. This, in turn, is creating a foundation to develop e-commerce in the local markets. Arba.uz led online sales in 2016 with 11% value share, broad product variety, and strong promotional campaigns.

Other popular e-commerce websites include Lebazar, OLX and numerous niche websites selling electronics.

The most popular products purchased online are health and beauty products, electronics, clothing, and shoes. As for cross-border e-commerce, Chinese and Turkish products are the most popular ones among Uzbeks.

Payments on e-commerce websites are usually conducted through payment applications, where leading ones are CLICK and Payme (although the majority of transactions are still conducted in cash). The development of e-commerce, especially electronics, has created an opportunity for micro-lending startups. Two foreign players have already entered the market - Alif Tech (a fintech startup from Tajikistan) and Vendoo (by TBC Bank, Georgia). They are collaborating with electronics retailers such as: Media Park, Texnomart, Idea and Arena Markaz, which operate their online shops in parallel with brick and mortar stores.

Talent Development

At present, there is a substantial lack of incubators and accelerators in the country, and there is no entity dedicated entirely to the development of the fintech sphere as of June 2020. However, the most prominent IT-related incubator & accelerator, IT Park Uzbekistan (a governmental organization under The Ministry for Development of Information Technologies and Communications) is currently working on developing corporate accelerators with various financial entities.

However, the demand is rising, as general population is seeing the fintech sector as a source of disruptive technologies, which could potentially lead to a huge development of the IT sphere as the whole in Uzbekistan.

Access to Capital

The opportunity to raise funds in Uzbekistan is relatively limited, as the venture ecosystem is just emerging. The majority of investors currently present in the country are representatives of foreign venture funds, not particularly interested in pre-seed startups. Most of the known fintech startups as of now are at this stage. Bank loans are not easily accessible for pre-revenue companies either. While the government is willing to support startups, fintech is not the top priority at the moment. Thus, existing grants are hard to get. For example, among the grant programs by the Ministry of Innovative Development there are no grants aimed for the fintech sector specifically.

No tax breaks are targeted to the fintech sector, but there is an extraterritorial tax exemption program specifically for IT startups, run by IT Park Uzbekistan. Its residents are exempted from all taxes except for the personal income tax, which has also been lowered from 12% to 7.5%.

Government Support

The government is currently concentrated on developing the IT sector as the whole, as well as on the development of the digital economy in general. At present, there are no particular developments in the field of fintech.

However, development of the cryptocurrency and blockchain sector is seen as a priority in general: this is the field with the most up-to-date regulatory measures and where the special state agency (Digital Trust Fund) was established, as described above.

Success Stories



This payment company started operations in 2011, with its USSD payment interface that was easy to understand for users, and it did not require an internet connection, which is most important for a country with weak internet coverage.

As the number of internet users and smartphones started to increase, CLICK released its second product: CLICK Uzbekistan mobile application with an easy-to-use UI and an option of tracking expenses. By the time of launch, the company already had a huge user base and it was easy to convert users from one platform to another.

In 2017, the next step was launching the CLICKUZ BOT for the most popular messenger in the country, Telegram. It offers almost all the services offered by the mobile app and helps users to make instant peer-to-peer transfers right in the chat.

In 2019, CLICK introduced a new mobile application CLICK Evolution, CLICK PASS – a terminal for merchants to accept cashless payments and CLICK E-Wallet, the first electronic wallet in Uzbekistan.

CLICK probably has the biggest user base in the country among payment companies. The company self-reports to maintain the leading position in money transfers from card to card (p2p), as it occupies 75.7% of the market. During its 8 years of operation, users of CLICK have made payments worth more than 15 trillion soums (1,48 billion USD), of which 7.78 trillion soums are accounted for 2019. CLICK mobile application has exceeded 1 million installations in the app stores.



Another successful company in the market. Launched in 2005 with points of payment (kiosks) all over the country. One of the main drivers of the success of the company has been its low barrier for small businesses to become its agent and install a payment counter. Any entity with a laptop and internet access could enter an agent agreement and start accepting payments. The web-based platform was so simple that any user could learn to operate it very quickly. This was a huge opportunity for small businesses like grocery shops and minimarkets, which are widespread in the country, to create an additional stream of income and attract more customers.

Another success factor of the company was an increasing number of telecom users. Telecom providers offered only prepaid accounts, and users had to constantly top up their balance. The huge number of PAYNET agents made this process easy, which helped the company to build a customer base and grow very quickly. Since its launch in 2005, the company has connected more than 390 various service providers including utilities, whose bills can be paid through the PAYNET at any of the 21,000 payment acceptance points throughout the country.

Currently, most payment acceptance points are closed down. PAYNET is now focusing more on its mobile application. According to the company, every day over 1.3 million people make payments using the PAYNET system and the company has over 100,000 installations

Pay me

The pioneer in peer-to-peer transfers over a mobile app. Since its launch, this company has gained huge popularity both among users and merchants. Unlike the two above-named companies, Payme entered the market with a mobile application and gained popularity very fast among high-end and tech-savvy users. The company has one of the most user-friendly mobile application UIs and documentation for developers. Therefore, it occupies one of the leading positions in handling e-commerce and on-the-spot payments.

The company became a national headliner in April 2019 with the acquisition of its 51% shares by TBC Bank from Georgia for 5.5 million USD, implying a valuation of 10.8 million USD for the company. According to TBC Bank, the number of registered users increased by 56.4%, or 1.7 million, and the number of transactions – by 24.5%, or 40.1 million, by the end of 2019. Through the acquisition of Payme, TBC Bank aims to develop digital banking ecosystems for business and retail services in Uzbekistan. They are using the digital bank «space» to develop a new main banking system in the country.

At the beginning of 2020, the bank received banking licenses and is planning to start operations. It is unknown if the bank will succeed in its plans, but TBC Bank has already launched two more services in the country: a platform for ticket sales named TKT and the microlending platform Vendoo.

Expert opinion

Shoyad Abdurasulov Infobank.uz

1.What current fintech technologies, in your opinion, are most disruptive, promise new niches or new revenue models, which of them you would advise to fintech entrepreneurs to closely look into?

In this technological world, most people are bored with using traditional cards. E-wallets have been introduced with more advantages over conventional cards and cash, and I think it will be one of the most successful fintech niches.

2. Do you think Uzbekistan might be the place to start a fintech startup at the moment?

Yes, right now, Uzbekistan is a nation which has some financial problems, I think it will be profitable to start a financial technology startup which solves their problems; however, it is somewhat risky. Most Uzbeks are not very familiar with technology.

3. Seeing that we are in the middle of a pandemic, in which fintech sector would you concentrate right now?

I would look closely at digital services as it brings many benefits for banks.

4. If you were an angel investor, where would you invest at the moment?

I would invest in sanitizer producers, health-care agencies, online-learning platforms and social networking. Because of the current pandemic and threat of COVID-19 sanitizers are used more than ever; people are more interested in their health due to COVID-19. Most students are at home and learning almost everything from the internet. The number of social network users has increased because of quarantine.

And I think in the next few years because of the light economic crisis due to lockdowns, people may have the intention to get small loans for their everyday expenses, so, that's why I would invest for such services.

Fintech Startups Landscape



Marker Place & Micro Lending



Payment Companies



- 60 -



Republic



Altynbek Ismailov Director at High Technology Park of the Kyrgyz Republic

Asel Botpayeva Independent consultant





Kyrgyz Republic at Glance

- GDP growth (y-o-y, 2018): 3.5% GDP per capita, 2018: US\$ 1,280
 - 84 84
- Population (May 2020): 6.5 million
- inflation (December 2019): 3.7%
- **FDI** inflow (of GDP, 2019): 13%

- Internet penetration: 47%
- Mobile penetration: 85.7%
- Banking penetration (2017): 40%
- 🖗 🛛 Global Innovation Index (2019): 90th

Recent Trends and Figures

The fintech industry in the Kyrgyz Republic is in its early stages. Digital payments are relatively new in the market, but they have seen positive growth over the past few years. Presently, ten commercial banks have licenses to issue electronic money, and more than twenty digital payment operators are registered. According to the annual reports from the National Bank of the Kyrgyz Republic (NBKR), the number of electronic wallets increased to 1.9 mln accounts in 2019. In the same year, there were 16.4 mln transactions of digital payments for goods and services with the total volume of 5.9 bln Kyrgyz Soms (KGS). This is 37% growth compared to the previous year, which is a good indication of the growing market demand for digital solutions in consumer products.

Amount of electronic wallets (thsd)



Source: Annual Reports 2017-2019, National Bank of the Kyrgyz Republic

Digital payments for goods and services



Sources: National Statistical Committee of the Kyrgyz Republic; Global Innovation Index; World Bank Open Data.

In the past few years, the volumes of money transfers between electronic wallets have grown significantly. In 2019, 4.6 bln KGS were transferred between e-wallets, which is 84% growth compared to the previous year. This suggests a demand for digital peerto-peer financial instruments, which could be used not only for purchases but for any money exchange of social character. Additionally, the volume for electronic wallet replenishment has grown by 50% from the previous year, which is comparatively higher than the overall increase in the number of replenishments. These observations indicate an increased trust in digital financial solutions, due to the higher volumes put into e-wallets. Also, on the other side, there is no longer a need to replenish an e-wallet, since the recent payment apps directly link e-wallets to the bank account of the user.

Today, the distinctive feature of the Kyrgyz fintech industry is the fact that it is being shaped by the telecommunication companies, who have adapted their technical capacities and expanded the financial landscape. Such solutions offer higher flexibility and capacity to reach small and underserved groups, and to provide them with financial services. Especially, when there is an unmet demand of 60% unbanked population in the Kyrgyz Republic, according to the Global Findex Database (World Bank Data, 2017). These payment solutions provide possibilities to pay for utility bills, public services, fees, internet and cable bills, taxi, food and delivery services. In addition, some of them offer short-term microcredit loans from the partnering banks. This lending service is relatively small but has a huge potential for growth. Also, these products offer the service for all clients regardless of their bank or mobile service provider, which earlier was an issue of misalignment to the customers

Transactions between the e-wallets



Source: Annual Reports 2017-2019, National Bank of the Kyrgyz Republic

Replenishment of the e-wallets



Source: Annual Reports 2017-2019, National Bank of the Kyrgyz Republic

Legislative Base

The National Bank has been a leading actor, in developing policies and regulations, to promote fintech in the country. It has introduced a set of decrees that standardize procedures, licenses, verifications and allow entrance for new fintech players. The most recent decrees have been on the "Procedures on making payments, using twodimensional code characters (QRcode), December 2019" and on the "Procedures for identifying and verifying clients remotely", May 2020. These decrees set the requirements and standards on technologies, and platforms reporting formats, data collection and measures for the remote identification of clients across the different players. The National Bank is committed to promote further development of the fintech sector, and thus, actively endorses the Concept for the development of digital payment technologies in the Kyrgyz Republic for 2020-2022. It coordinates fintech developments with the State Committee on Information Technologies and Communications in the Kyrgyz Republic along with other players, such as: the High Technology Park of the Kyrgyz Republic (HTP), Union Banks of Kyrgyzstan, Association of Payment Operators, Association of Communication **Operators**, Interbank Processing Center, E-commerce Association of Kyrgyzstan and others, towards the new policy directions and developments in open banking, security and customer protection, blockchain, cryptocurrencies, cloud resources and artificial intelligence.

Talents and Financial Software Developers

As the fintech sector rapidly grows within the country, financial software development from the Kyrgyz companies is already expanding into international markets. From advanced Blockchain technologies to more traditional core banking systems, local companies are providing a range of services for the worldwide financial industry. Startups and enterprises, which are actively using fintech products and services are from the United States, United Kingdom, Australia, Kazakhstan, Russia and many other countries that have rigorous financial regulations.

The growth of software development and accumulation of relevant competence is in part, due to the **special tax and** legal regime that is provided by the High Technology Park of the Kyrgyz **Republic.** HTP resident companies receive exemptions from VAT, Taxes on sales and profits, and in addition, a decrease in Income Tax to 5% and Social Fund Tax to 12% from the average salary (National Statistic Committee). A favorable IT environment has driven up supply and demand for talent. At the moment, thousands of ICT specialists are graduating from local universities, technical colleges, private courses, and other education institutions accelerating the growth of the local IT companies.

Risks and Opportunities

The market size is small, and there are few investments available in the country. Small startups are challenged with the risks of low returns and restricted to a limited infrastructure. However, there is an empty marketspace, which could be filled with variety of financial products. To facilitate local startups the National Bank is expected to consider the sandbox approach, which would permit new products, technologies and business models to be tested under easier regulatory conditions.

The e-commerce sector is growing in the market, but it needs better financial services. There is a need for B2B solutions, which could facilitate broader coverage and the involvement of merchants using fintech products in their operations. For instance, mobile point-of-sale (POS) solutions could offer alternate and flexible options for merchants. Also, there is a shortage of payment aggregator solutions in the market, which could notably reduce inefficiencies for merchants, as well as for customers. **Currently, there is only one international payment aggregator active in the market**.

Security and money laundering measures have been of importance to protect assets and customers from fraud. However, there is still a need for customer verification and data protection technologies. Additionally, fintech highly depends on data, which offers profound analysis for the businesses and customized solutions for the users. As digital lending is starting to grow now, customer data can be used to minimize repayment risks and increase loan options. Currently, there is no player in the Kyrgyz market who processes financial data as part of the business model. Particularly, there are big unexplored opportunities to use data for credit history analysis, customer profiling, loan evaluations and refinancing options. Fintech also has an opportunity to advance transborder integrations with the members of the Eurasian Economic Union and the bordering countries, such as: China, Uzbekistan and Tajikistan. Cross-border trade could be facilitated through integrated online marketplaces, payment systems and logistic units. Additionally, money transfer products have a significant market base, due to the amount of remittance transfers reaching up to 30% of the national Kyrgyz GDP (World Bank Data, 2018).

The fintech industry in the Kyrgyz Republic is young and has potential, with the capacity to grow dynamically.

Local IT companies have attracted talent to create high quality products. At the moment, most of their services are outsourced to other countries. But these companies are actively engaging more in the local market and they have shown the capability to launch fintech products both domestically and internationally. Thus, the human potential will be the main driver for the future of fintech in the Kyrgyz Republic.

Expert opinion

Yury Chelbakov, Product Director at O!™ NUR Telecom LLC

О!Деньги (O!Dengi) is an electronic wallet provided by Green Telecom Service LLC in partnership with mobile telecommunication provider O![™] NUR Telecom LLC. It was successfully launched in 2019, and in a short period of time was able to increase its user base and build partnerships with multiple companies. According to the State Committee on Information Technologies and Communications in the Kyrgyz Republic, mobile provider O! has the highest consumer base among mobile providers in the country. Having integrated O!Dengi into the mobile provider's application "My O!", the company easily converted its mobile users, which successfully increased its presence in the electronic payments market.

Payment solution O!Dengi provides a fast and easy solution to pay for utility bills, public services and fees, internet, mobile and cable expenses either from the e-wallet, a mobile phone balance or from a bank card added to the e-wallet. Multiple merchants have registered with O!Dengi and started receiving electronic payments directly to their accounts. As the payments have grown, the company has partnered with bigger vendors by automating their payment procedures using QR-codes. This allowed O!Dengi users to pay at the grocery stores and petrol stations by scanning a QR code only.

In addition to the electronic payments O!Dengi provides access to micro-credit loans available from its partnering bank OJSC Dos-Credobank. In the case of a successful application, over a period of twelve months, an approved user is able to receive up to 5000 KGS of credit per month and get it directly deposited to their e-wallet. Moreover, the company co-branded with Dos-Credobank and started distributing a national payment system card "Elcart" among its users. This has become a similar practice among other mobile payment companies, as the "Elcart" card is mainly used to withdraw money due to its broad ATM availability. Overall, such partnerships are successfully contributing to the banking coverage and card ownership among the population in the country, since mobile providers have a wider distribution of branch offices than the partnering banks.

Mr. Yury Chelbakov, Product Director at O!, noted that such developments have been achieved due to the ongoing open dialogue and legislative support from the National Bank of the Kyrgyz Republic. Recent legislation on remote identification of users and increased fund limits for the identified users are few examples contributing to fintech development in the country. Particularly, an increase in the eligible fund limit up to 100-200 thousand KGS per month for identified users, has allowed e-wallets to become the main payment tool to cover all monthly expenses.

While discussing future fintech developments, Mr. Chelbakov noted his personal view on the difficulty in expanding the product across the border due to the differences of the regulatory environment among the CIS and Central Asian countries, which is less observed in the more homogenous regulative field of the EU. However, he believes that over time we might observe cross-border synergies between the local products of the CIS and Central Asian markets due to the demand and already present sizeable remittance transactions between the countries. He mentioned that currently Bank Kyrgyzstan and Kompanion Bank are working with Russian partners towards such synergies, and O!Dengi is also cooperating with them to bring these projects to the market.

Fintech Ecosystem Map

Regulators Banks* 🗛 БАНК 💠 КІСВ BAI TUSHUM BANK HIGH TECHNOLOGY PARK КЫРГЫЗ БАНКЫ САНАРИПКЫРГЫЗСТАН of the Kyrgyz Republic **BAKAI**BANK KOMPANION BANK DOS CREDOBANK КЫРГЫЗСТАН Hubs, accelerators, associations FINCA Bank AUUA GAHK (db) DemirBank KSSDA **Software Developers*** АССОЦИАЦИЯ ОПЕРАТОРОВ СВЯЗИ Attractor Cetechnology Spalmale e-commerce // PEAK Zensoft S ULUT SOFT TDS•AI TS TimelySoft Facilitators DEVS VISA **Solutions** Paloneer TUNDUK тор варта OPENCBS Finance Sun Finance Soft **Enterprises*** PE and VC **O**! Beeline⁻ MEGACOM accelerate **Payment & e-wallet European Bank** FINANCE Balance MegaPay Lending QUICKPAY элсом UMAI Balance **O!**d элсом Pav2 Q!WI оной

*commercial banks, enterprises and software developers engaged in fintech

CHAPTER Belarus

BEROC

Anastasiya Luzgina PhD, Associate Professor Deputy Director on Development

Belarus at the Glance

- GDP per capita (2019): USD 6330.1
- Population: 9.5 million
- finition (2019): 4.7%
- fDI inflow (of GDP, 2018): 2.7%
- 🙀 Global Innovation Index (2019): 72th



Fintech Development in Belarus

Fintech Trends

- 1 Belarusian IT companies have successfully developed a wide range of fintech products for domestic and foreign markets. Some fintech producers prefer to outsource work but the others create their own fintech services.
- 2 There are companies that specialize in the services for mostly Belarusian clients. For example, IT company "Softclub" provides services for Belarusian banks.
- 3 Some large IT companies (Big IT) don't focus on fintech products but have several projects in the sector. They cannot be identified as fintech producers only. So this group of companies is shown as "Developers of software products for Fintech" on the Fintech Ecosystem Map.
- Venture ecosystem is in the development stage. The on-going process of financial system digitalization is increasing the interest in IT startups (including fintech) from the banks. For example, in June 2020 bank BelVeb announced the creation of a venture fund, which will specialise in IT projects, including fintech.
- 5 There are several dominant spheres in the Belarusian fintech market that are not traditional for other countries. Besides payment services and money transfers, the most popular segment in Belarus are the online investment platforms, including blockchain based projects. Several crypto exchanges are registered in the country (currency.com, iexchange). Belarusian enterprises can issue tokens through specialized investment platforms (Finstore). Natural persons can mine, buy/sell and change cryptocurrencies without any limitations. The National Bank of the Republic of Belarus launched an information network on the basis of blockchain technology. The first bank guarantee on blockchain technology was issued January 2019.

Sources: National Statistical Committee of the Republic of Belarus; Global Innovation Index; World Bank Open Data.

- ⁶ The Belarusian fintech map has been presented with projects in spheres like PFM services, reward-based and donation crowdfunding, robo-advising and P2P lending.
- Challenger or neo-banks, such as Tinkoff Bank in Russia or N26, MONZO, Revolut in EU, are not represented in Belarus. But some Belarusian commercial banks have transformed their business models to implement different online services.
- 8 There are free or not very well developed fintech niches in Belarus. They include crowd-investing, RegThech, SupTech, proptech and InsureTech. This can be explained by underworked regulation, lack of experience, and an insufficient level of financial and digital literacy in these spheres.

The Belarusian fintech market is represented by more than 70 different fintech-related companies. The list of technological products in finance will be much wider if technical and software solutions for commercial banks (CRM systems, online banking, security, SaaS based business intelligence solutions, and etc) are included.

Belarusian fintech has common trends with other countries in the region. Payment services is the most popular segment in the Belarus fintech landscape. National IT companies or startups have developed the main part of the payment services, including such projects as: Denegram, Tap2pay, Cashew, Schoolpay, bePaid, etc. But there are also international services like SamsungPay or ApplePay, as well as state-involved companies OJSC "Nonbank financial institution "SSIS" and JSC "Belarus Interbank Settlement Center".

IT sector as a driver of the fintech market

The situation in fintech has been influenced by IT and the traditional financial sector. The Belarusian IT sector is well developed. In 2019, the export of computer services exceeded 2 billion USD and about 600 million USD in Q1 2020. The sector of Information and Communication contributed 0.5% of GDP growth in 2019 and about 0.6% in Q1 2020. It's share in total GDP exceeded 6% in 2019 and reached 7.1% of GDP in January-May 2020.

Export of computer services – main indicators in 2017- I Q 2020

	2017	2018	2019	Q120
Volume, mln. USD	1203.1	1585.6	2118.8	595.3
As % of the same period of the previous year	125.5	131.4	133.3	134.1
As % of the total volume of services exported	15.5	18.2	22	27

Source: www.belstat.gov.by

High Tech Park (HT Park)

The Rapid growth of the IT sector in Belarus started in 2005 when High Tech Park was created. Residents of the Park have very attractive working conditions, including tax-incentives and other benefits. Some IT companies HT Park residents specialize in fintech projects. The HT Park residence's status allows more competition and is attracting highly qualified specialists as in foreign markets. There is no limitation to be a resident for foreign companies or for Belarusian entities

As many IT companies work under fintech projects and fintech companies prefer to get HT Park residence, we can extrapolate the situation with specialists in the IT sector in the fintech sphere also.

In January-April 2020, wages in the Information Technology and Information Service Activities sector were more then four times higher compared with the average nominal wage in the country. High level incomes in the sector are based on the huge demand for IT specialists and growing demand for IT products globally. The IT companies cooperate with the main technical Belarusian state universities, such as BNTU (Belarusian National Technical University), BSTU (Belarusian State Technological University) and BSU (Belarusian State University). There are specialized IT schools in the country and different special courses that are organized by IT companies. The national legislation and competitive wages create good conditions for foreign specialists that can be hired by HT Park residents.

An additional push for IT sector development as a whole and the fintech market, in particular, was done through the adoption of special legislation.

Belarus became the first country in the world where operations with crypto assets were legalized. The Presidential Decree of the Republic of Belarus #8 from December 21, 2017 "On Development of Digital Economy" allows the registration in HT Park not only of software producers but also fintech companies in such spheres as mining, cryptocurrency exchange, other activities with tokens, including issuing crypto-assets, investment fund activities, etc.

The Decree has created clear rules for conducting operations with crypto assets for legal entitles and natural persons in the country. For instance, individuals can mine, store tokens in virtual wallets, exchange tokens for other tokens, Belarusian rubles, foreign currency and electronic money. Companies and enterprises can create and distribute tokens, buy or sell cryptocurrencies and do other operations with tokens through cryptocurrency platform operators, cryptocurrency exchange operators and other HT Park residents, carrying out the corresponding type of activity. The Presidential Decree also gives some new privileges for all HT Park residents, such as: liberalization of immigration regulations, exemptions from currency control and English law implementation. Furthermore, the special legal regime includes some special tax-incentives for token-related operations for HT Park residents till 2049. Until January 1, 2023 there is an exemption from income tax for individuals, as well as VAT and profit tax exemption from income (turnovers) of legal entities from such operations as: mining, issuing and purchasing of tokens, as well as some other tax privileges.

Financial sector and its cooperation with fintech

Belarus has a well developed banking sector. Today, 27 banks and non-banking credit and financial institutions with more than 100 leasing companies and 86 microfinancing organizations operate in the country.

The share of cashless payments, using banking cards in the total volume of operations and banking cards, was 58.7% in the first quarter of 2020. For the same period of 2015, the indicator was equal to 29.4%. The growth of cashless payments related to the Central Bank policy according to which retailers, foodservice facilities are obliged have payment terminals.



Today, contactless cards have become the main type of cards issued by the banks. From the 5th of June 2020, the population in rural areas and small urban settlements will be able to withdraw cash through trade terminals. In cities, the service will start from the beginning of 2022.

The National Bank is planning to start a pilot project in which commercial banks will be allowed to attract money by issuing digital tokens. 12 commercial banks will participate in the project. The process of tokens' issue will be done through residents of HTP in accordance with national legislation.

Monetary authorities support financial market transformation not only by legislation and regulation improvement, but by creating technological institutions and systems.

Since 2008, OJSC "Non-bank financial institution" Single Settlement and Information Space" (SSIS) – System «Pacчet» has operated in Belarus. The system was launched by the National Bank for to simplify receiving payments from individuals and legal entities. Today, SSIS includes 18,400 service providers. More than 63,300 services are allowed for payments. Buyers can pay by QR-code or choose the service through SSIS "tree".

Interbank identification system (IIS) is another very interesting example of the Belarusian financial system technological development. IIS uses SSIS as a technological base and was launched in December 2015. The system provides remote personal identification and allows different financial services to be received from financial institutions online.
If a person goes through personal identification in one of the banks registered in the system, he or she can get online services from any bank or other IIS professional participant that are included in the system.

A new step in the national payment system development started in 2019, when the Instant Payment System (IPS) was launched. Legal entities and individual entrepreneurs received the possibility to pay for goods and services, transfer money to the budget in real time whenever they need. All transactions are irrevocable and payable. The National Bank plans to make these services available for natural persons and retail in the near future.

Success stories

Finstore is an online investment service that works as an operator of cryptoplatforms. The company issues tokens of different well-known Belarusian companies, such as: MAZ (producer of commercial vehicles), Belvest (shoes producers), leasing company Chistaya Linia, etc. Tokens have a fixed interest rate and can be nominated in euro, US dollar, Russian ruble or other currencies.

The profitability of digital assets is higher compared to the profitability of bank deposits or government bonds and not taxable. Today, only a natural person can buy tokens on the platform, but in future legal entities and non-residents will be able to work with crypto assets too. **Currency.com** is a crypto-platform operator. The entity allows investment in tokenized indices (VIX, EU50), tokenized companies' shares (Amazon, Apple, Delta Airlines, etc.), tokens of commodities (oil, gold, UK cacao, etc.) and tokenized Belarusian government bonds. Investors can buy/sell cryptocurrencies on the platform as well. More than 1 million USD has been invested through the platform up to now. Currency.com is the first officially regulated platform that works in line with anti-money laundering (AML) and know your customer (KYC).

Cashew is a payment initiation service provider. It allows online purchases to be made, initiates payment smartphone transactions in shops, including QRcodes payments. For retail, Cashew provides lower commissions without the need to install new equipment. The system allows users to create installment and/or regular payments and loyalty programs as well as to set up POSlending. All these characteristics attract not only buyers and sellers but also banks. In 2019 Cashew was announced as Start Up of the Year in Belarus.

StreetVoices is the application for street artists. It is used for communication between street musicians and their fans, as well as financial transactions. The app is an example of a fintech service for groups of people that are not covered by the traditional banking system.

Market participants opinion

Julia Lokotkova It-entrepreneur, founder of Pingfin and OpenBusiness startups



In my opinion, the FinTech market in Belarus is at the development stage. For example, 5 years ago (in 2015) the word "FinTech" only made sense to a very limited number of people. Still today, we can't say that every Belarusian knows what it means. Until 2015, outsourcing IT companies were engaged in FinTech projects and developed progressive solutions for markets where startups actively competed with traditional banks. The first independent FinTech startups for the Belarusian market appeared after 2015. So far none of the startups I know have become a unicorn, but there are projects that are sustainable and have been scaled up for Western Europe and Russia. In 2018-2019, interesting startups began to appear on the national market. They merit attention and solve important tasks in the field of loyalty, fast payments and cyber security. But at the moment the «range» of projects in the FinTech sector in Belarus remains very modest. Some niches are still empty. The main reason is the low demand for fintech products and services. Partly, it can be explained by the insufficient financial and digital culture of the population and businesses. But I should underline that today we see flexible and quick responses from traditional banks on covering new needs from their clients. It is not so easy for independent fintech startups to compete with some of them to improve the consumer experience.

Darya Zhuk, Managing partner of law company COBALT Belarus



Fintech is an area in which the scope of jurisdiction does not play a key role, because it is possible to create a regulatory environment in which both local and global players will feel equally comfortable. Belarus is not an exception from the process and tries to develop the fintech industry in line with global trends: development of payment and settlement space, remote identification, Open API, blockchain, BigData, AI, cyber security and ecosystem construction. At the same time, not all trends are fully realized due to some regulatory restrictions. For example, payments to third parties are not currently explicitly allowed. It means that there are some obstacles with their implementation. In 2020 the National Bank of Belarus plans to submit to Parliament a bill on payment systems and services (the law is expected to be adopted in 2020-2021), which will finally give a green light to payment agents and services.

Fintech Ecosystem Map (1 out 2)

Payment Services / Currency Converters / Cash Transfers



Online Investment Platforms / ICO / Blockchain



Online Accounting



PFM Services

P2P Lending



Crowdfunding (rewards-based & donations)



Robo Advisors



POS / Online Lending

КУБЫШКА

Хуткі анлайн	Кредит TUT.BY
(БелВЭБ/Tut.by/MTC)	(IdeaBank/Tut.by)

Давер

Fintech Ecosystem Map (2 out 2)

Developers of Software Products for Fintech



Support of Fintech Projects FFIE Belarus Finech Hub FORFER







Access Solution Consulting company focused on strategy development and market research in Mongolia

THE BLUE SKY

5

Country background

Mongolia, one of the most sparsely populated countries with a rich history and nomadic culture, has been challenged to accelerate its economic and social development in the age of information technology and digitalization. Mongolia has the potential to harness the new wave of frontier technologies and chart new pathways for prosperity. By bringing their nomadic communities closer to technological development and wiring the nation to be digitally connected, Mongolia can create an inclusive and vibrant digital economy. Over the last 10 years, information technology goods and services have boomed and Mongolia's young and adaptable population has embraced IT products for personal and professional uses. Disruptive technologies, including artificial intelligence, blockchain and advanced data analytics have already been introduced to Mongolia. Entrepreneurship and startup culture have become popular among the younger generation, who are utilizing these technologies to solve problems faced by Mongolians in areas ranging from financial inclusion to education and health.

Mongolia is a potential location for outsourcing because of its proximity to digital hubs in Russia and East Asia, and the relatively low cost, highly motivated and dynamic IT professionals with strong mathematical skills, a prerequisite for the development of AI. The Quality of Math and Science education in Mongolia is one of the best in Asia Pacific. The IT sector in Mongolia is ready to support the core economic sectors to have a better use of modern technologies. According to the International Telecommunication Union (ITU), Mongolia is ranked 14th in its region of Asia and Pacific and 91st globally out of 157 countries in 2017 by its ICT sector development. ITU indicated that the main advantages of Mongolia in terms of digital access are the high numbers of mobile-cellular subscriptions and active mobile-broadband subscriptions.

A survey conducted by the Mongolian Chamber of Commerce in 2019 shows that the Infrastructure and Technology environment is relatively good, compared to other factors including political stability and the socio-economic environment in Mongolia.

Mongolia's Sustainable Development Vision 2030 aims to establish sound development in finance and a financial market ecosystem that would promote stable economic growth, increase the role of non-bank financial institutions and stabilize financial institutions. The Mongolian financial sector is made of 14 commercial banks, 18 insurance companies, 518 registered non-bank financial institutions, and about 280 savings and credit cooperatives. The banking sector dominates the financial sector, holding a 96 per cent share of the annual output of the financial sector. However, lower amounts of savings, high-cost financial resources and lack of financial literacy among individuals need to be addressed for the financial service delivery.

According to the Financial Regulatory Commission, financial literacy in the general public is not sufficient and, there is a significant gap in knowledge between urban and rural, rich and poor communities. The financial system is not sufficiently developed to support broadbased access to finance. Commercial banks continue to dominate the financial sector. No fully licensed foreign bank operates in Mongolia, impairing competition and alternative product availability. Although SMEs make up 90% of the registered businesses and provide about 50% of all jobs, up to 90% of such enterprises do not have regular access to finance from banks. This limits their chances to grow and the ability to realize their potential contribution to growth and job creation. Furthermore, their access to lending is constrained by a lack of recognized collateral, high lending rates, and banks' liquidity constraints on long-term lending. Other constraints are an inadequate credit information base, burdensome requirements imposed on SMEs when applying for credit, their poor understanding of financial management, and underdeveloped loan underwriting capabilities at banks. The access to lending and financial services is limited in rural areas and urban areas outside the capital.

Financial literacy is especially weak among women and an effective regulatory framework for financial consumer and investor protection does not yet exist. The Mongolian economy needs long-term sustainable financing, which is currently a challenge for policy-makers. Banks are impaired by funding constraints to offer longer-term loans. There are very limited financial market instruments available to private borrowers in the country's illiquid and inefficient bond and equity markets.

Despite the fact that Mongolia was ranked 87th in the Ease of Doing Business ranking by the World Bank with a score of 67.8 in 2019, and has a barrier to entry in the form of qualified workers compared to developed countries, there are several successful fintech startups, which have proven their concepts in Mongolia such as LendMN.

Startup Financing

The Mongolian Governmenthas progressive outcomes in terms of promoting new businesses and improving the ease of doing business in Mongolia. For example, Mongolia made starting a business easier by eliminating the requirement to have company statutes and charters notarized, as well as the requirement to register a new company with the local tax office in 2014. However, the difficulties faced by entrepreneurs in Ulaanbaatar include several that one would expect to see in any budding startup community – accessing mentors, seed funding, expanding into foreign markets, and growing a team. In the last few years, the Government has committed to support funding schemes for entrepreneurs, and one of the biggest contributions was the creation of the National Information Technology Park in 2002. In 2018, the Hub Innovation Centre was established at the initiative of the Mayor of Ulaanbaatar city to promote and encourage the activities of startups. It has been promoting IT and innovating startups.

The lack of available capital greatly stifles the development of innovation-driven enterprises. The current ecosystem will largely benefit from a network, which connects private investors with entrepreneurs, as well as from the creation of programs to educate entrepreneurs as to the best way to search for funding.

By increasing knowledge about the investment climate, potential investors might be more comfortable investing in Mongolian startups, and Mongolian startups might be able to more successfully approach potential investors. Since there are not many venture capitalists in Mongolia, the Government has been trying to increase investment for startup companies. In the State Policy on High Technology Industry (2010), the Government has stated its desire to support venture capital funds directed towards high technology. However, this policy has not been implemented. There are also ongoing efforts to support SMEs and start-ups that are funded by both foreign development banks, such as: EBRD and the Mongolian Government.

Domestic venture/risk capital: Mongolia is ranked 137/140 by venture availability (WEF 2016)

- Government funds: The government channels its resources through the National Information Technology Park, which provides incubator and discounted office space for startups.
- Commercial banks: Loan levels are too high risk lending to startups.
- Investment management: Both domestic and foreign investors are less likely to work with a Mongolian company without a local fund manager.
- Personal funding: If the entrepreneur has a bulletproof business plan and enough passion, this will be highly valuable.

Some startups succeed in an IPO in the Mongolian Stock market, which could be another source of funding. Until now, Mongolia has only had two successful cases; one is a complete IT-based company iTools LLC, and the other one is a newly emerged fintech company LendMN. As those cases were attractive enough to hold the public's attention, both performed beyond expectations. For example, LendMN achieved its plan to raise 5 billion MNT from the market, half of it from strategic investors and the remaining 2.5 billion MNT from the public. A detailed survey, conducted by the Mongolian Chamber of Commerce, defines the top constraints for startups in the ICT sector. In the result, 60.9 per cent of total surveyors named cost to start a new business as a key constraint, 57.5 per cent named access to finance, and 48.7 per cent named time constraints as the main obstacle. The top constraining factors for startup growth in Mongolia:

- 1. Cost to start a new business
- 2. Access to finance

3. The time needed to start a new business

Regulatory Environment

As of 2017, Mongolia did not have significant entry or exit barriers for businesses, and the economy was highly open to foreign trade and investment. The Competition Law, passed in 2010, provides a good legal framework to address anti-competitive behavior by firms. The Investment Law, passed in 2013, eliminates restrictions on private foreign investment and offers an array of investment incentives for both national and international investors. Mongolia has one of the least restrictive trade and capital control regimes in the Asia and Pacific region. The tax burden is also among the lowest in the world, across the spectrum of taxation. There is little direct state intervention in the goods markets, and few state-owned enterprises are operating.

The corporate governance laws generally encourage disclosure and protection of shareholder rights. Overall, the main elements of a sound legal and regulatory framework are in place, but the enforcement capacity and implementation are weak.

The main legislation for the ICT sector includes: Technology Law (1998), Science and Technology Master Plan 2007-2020, The Law on Science and Technology (2006), Telecommunications Law (2001), Law on Radio Frequency, Law on Postal Services, the Law on Digital Signature and the Law on Violations. In the ICT sector, the key strategic document is the State Policy on the Development of Information and Communications Technology (2017-2025) that was enacted within the framework of the Sustainable Development Goal 2030. In the ICT sector, the regulatory architecture is to define policy directions and regulatory principles to be pursued in supporting interconnectivity and service competition and distribute limited reserves of telecommunications, such as radiofrequency and numbering. While examining relevant policies and regulations in the ICT sector, it is revealed that Mongolia has an umbrella of policies to develop a favorable legal and regulatory environment to support the expansion, use and possession of information, communications and highspeed broadband networks.

According to the authorities, ICT regulatory decisions are informed by adequate evidence and research and there are time-bound targets to improve national broadband plans to reduce the cost and increase penetration, making available the broadband spectrum for high-speed data service.

However, very few of these policy frameworks have been implemented. Although 517 nationwide development projects have been initiated over the last 25 years, only 132 of them have been implemented and the rest have remained on paper. This reveals that there might be inefficiency existing in the state coordination mechanism. The competition enables private investment, incentivizes operators to be more efficient, and as a result, ensures maximum benefits for end-users both in terms of quality and prices. To allow market competition, defining the boundaries of strategically important value chains is crucial in the ICT market. Up to now, there has been no universal understanding about the separation of up and downstream markets, defined by law. Allowing different levels of competition in upstream or downstream markets is important and there are different regulatory frameworks which could be adopted. The most successful activities, out of all activities being implemented under this document, is "Khur and Dan" systems, developed by the National Data Centre.

With the introduction of these new systems, the citizens now have a wide range of possibilities to be served faster, and the services provided by the state are enriched with innovations. Mongolia has also experienced a challenge in e-commerce due to the lack of regulation. The main challenge for the development of e-commerce in Mongolia is the poor logistic system, low standardized addressing and insufficiently integrated payment system.

Two million Mongolians regularly shop online, accessing both domestic shopping platforms and foreign e-commerce outlets, such as Amazon or Alibaba. Facebook has become one of the most popular local platforms for e-commerce, with over 50,000 sales taking place daily between individual users trading with each other in the Facebook marketplace. Furthermore, 64 per cent of millennials use Facebook as an information source for possible online shopping.

Moreover, domestic online shops are not able to support international payment alternatives, such as PayPal. Thus, it limits expansion opportunities to foreign markets. Domestic payment systems are also not friendly to customers that require an internet pin-code, which is a troublesome step for the users. The lack of a strong legal environment for online payment and co-existence of separate payment systems make introducing e-commerce, in both domestic and international markets, difficult for business entities. Moreover, manufacturers and merchants face various difficulties regarding payment when they target international e-commerce.

Fintech-Related Regulation

Digital money in the legal sense, the non-cash currency of Mongolia, issued by or approved by the Bank of Mongolia has a value equal to MNT.

Furthermore, digital money has the following characteristics: the total amount is stored electronically, backed up by cash, accepted by third parties other than the issuer and its customers, freely convertible to cash, cannot serve as a source of loans, and one digital money unit equals one 1 tugriks (the smallest unit of Mongolian national currency).

Due to the implementation of the law on National Payment system in 2017, "Digital money regulations" was approved by the Central bank of Mongolia. Currently, three private organizations have acquired a digital money license, they are:

- 1. Candy.mn, non-banking institution
- 2. Ard Credit, non-banking institution
- 3. SuperUP LLC

Success Stories

LEND.MN

LendMN is consumer micro-credit service provider that has introduced the Fintech business model through the LendMN application, which is the first in the Mongolian market to combine technological advances with financial services.

ZEEL.MN

This application conducts every microloan and small enterprise loan online, it is making all processes paper-free and hassle free. The application is collateralfree and available at any time, anywhere.

SENDLY.MN

This is the first licensed international money transfer service for Mongolians abroad. «Gyals Credit» NBFI LLC has started cooperation with Golden Money Transfer, Prabhu Money Transfer and Moneytun companies, which have money transfer licenses in 31 states of the United States and has launched the online money transfer application SENDLY.

HIGHPAY.MN

High Payment Solutions LLC was established in 2018 to build a Mongolian nationwide payment Ecosystem, implementing the first-ever Mongolian payment gateway service based on the latest technology, which complies with international standards.

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