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TRANSFORMATION OF THE FINANCIAL SERVICES INDUSTRY UNDER THE INFLUENCE OF FINTECH: GLOBAL AND REGIONAL DIMENSIONS

The article defines the concept of fintech as an innovative industry and as a financial product. The processes and possibilities of using innovative technologies, in particular blockchain, artificial intelligence, Big Data, cloud technologies, artificial neural networks, and machine learning technologies for the financial services industry are generalized. The author notes the promise of the application of such innovative technologies for the expansion of crediting, reduction of credit, investment and other risks, personalization of financial offers for the client, trading, money transfers, insurance business, etc.

The world investments in fintech in the period from 2013 to 2019 are analyzed. The author points out the increase in total investment and average value of one transaction over the past two years. Analyzed the application of fintech for local markets and in various areas of the financial services industry, in particular investments in InsurTech.

The author shows the opportunities of the introduction of fintech in the regional section. It is concluded that the coverage of the population with fintech services is higher in the countries where the market of traditional financial services is less developed. Countries with developed financial markets have a conservative approach and a certain lag in the introduction of financial technologies. At the same time, the author points out a high level of concentration of investments in developed markets.

It is concluded that digitalization in the financial and other sectors in Ukraine is promising; in particular, it concerns non-cash payments of insurance companies, remittances and services related to RegTech. Highlighted the priorities for fintech in Ukraine in terms of improving digital literacy, cash economy, and development of fintech ecosystems.

The positive and negative effects of the introduction of fintech are considered. It is emphasized that the problems that need to be addressed relate to the risks associated with personal security, privacy, loss of personal data, cybersecurity, job cuts, and various other aspects[2]*.*

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Introduction. In recent years, the financial sector has become a leader in the implementation of digital technologies in its activities. High competition among financial companies and the growth of the fintech sector have enabled revolutionary changes with the introduction of innovative technologies and accelerated their application in the traditional sectors of the financial services industry (banking, insurance, credit, brokerage services, etc.). The financial technology sector, competing with the classic banking and financial business, has given impetus to the introduction of innovations in the financial system.

Today, due to the development of fintech, it has become possible to transfer most banking, financial services online, and electronic channels are a full-fledged alternative to providing services according to the classic scheme and direct contact with the client in the office. Banks began to open online credit lines and deposit accounts, issue debit cards without plastic issuance, improved electronic document management, cross-border transfers by card number, improved communications, speed and quality of exchange between the bank's departments (front office and back office) and its branches, the banking infrastructure has changed, opportunities for infrastructure optimization through its remote location have been used.

The financial sector was one of the first to attract investment in the development of IT technologies. Fintech adapts to the new conditions the entire financial services industry - banking, insurance, crowdfunding, payments and transactions, investment management, services in stock markets etc.

Analysis of available research and publications. The direction of research on the development of financial technologies is currently new and relevant. Publications in this regard have only begun to appear in the last five years. S. Blackstad and R. Allen study financial models and tools that target financial companies to customers and analyze the implementation of practical steps in the field of fintech services [1]. K. Skinner analyzes the global potential and inclusive focus of fintech [2]. J. Hill in his research notes that in modern conditions, classical finance and fintech are combined [3]. C. Chishti and J. Barber- is performed a historical-retrospective analysis of the emergence of fintech and considered the prospects of investing in this area [4].

Research in this area is conducted by individual researchers and various consulting and research centers. Extensive analytical reviews on fintech have been prepared by companies such as Deloitte [5], KPMG [6], EY [7], PwC [8] and others.

The article's objective. Summarize the potential opportunities for the transformation of the financial services industry under the influence of fintech at the global and local levels. Identify the problems that consumers and providers of fintech services may face and identify prospects for the use of fintech in the financial sector of Ukraine.

Financial technologies as a modern choice

New banking decisions on the functioning of the banking system and the introduction of new business models must adopt innovative technologies. In fact, the classic banking model is already "exhausted" and needs qualitatively new changes. Financial technologies have become the engine of new ideas and innovative solutions for the financial services industry. Of course, their implementation and reaching a new level of development requires investment, which innovative financial business can receive both from the classical financial industry and by attracting other financing instruments. *That is, the symbiosis of fintech and classic financial companies has become the optimal solution for the development and approach of financial services to the consumer.*

The concept of "financial technology" (fintech or FinTech), like the phenomenon, arose as a result of the information and digital revolution. Despite the fact that the established concept of fintech is not defined, it is mainly used in a dualistic context: to denote both the sector (new industry) and certain financial innovations that are implemented in various areas.

The first approach defines fintech as an industry that, thanks to innovative technologies, competes with traditional financial institutions (banks, insurance companies, credit unions, etc.) [8]. In the second case, it is any financial innovation for the financial services industry that is widely used for the end user and for new products that compete with traditional ones [9].

Many innovative technologies have found their scope in the financial services industry, which has improved the efficiency of financial institutions. First of all, they include:

– ***blockchain technologies*** that are widely used today, not limited to the crypto currency market; although their total capitalization has not reached its peak, it fluctuates within certain limits. Blockchain is a competitive technology, although quite expensive. With the help of blockchain technologies, databases and digital registers are created with a high degree of security - in contrast to previous storage technologies. Risks of counterparties, registration of agreements, confirmation of the person, which increases efficiency of management of credit risks, decrease. Investment risks are reduced as the blockchain provides an opportunity to audit companies without the participation of proxies, bureaucratic procedures and provides wide access to the company's financial statements;

– the use of ***artificial intelligence and robotics***, which are involved in the work of call centers, for processing a large array of data, customer service, especially for typical issues, etc. Banks use a new technology RPA (Robotic Process Automation), which can functionally take over certain responsibilities of the operator in the interface. Processing such operations manually took a long time, and robotics accelerated and reduced physical errors;

– ***Big Data technologies*** allow us to process, personalize customer data and integrate them with each other, which allows you to create personal financial proposals that include a range of customer services according to his capabilities and needs. Such technologies make it possible to create new banking products that will be in demand. Another area of application is credit scoring. Such technologies allow a complete analysis of the potential borrower. With their help, data on the complete credit history of the borrower, his social and property status, analysis of data on his preferences in purchases, etc. become available. Another direction of implementation of such technology is related to the security capabilities to identify potential fraudsters. At the same time, both the data of each of the client's banking operations (payment amount, country of payment, recurrence of payments) and digital traces left by a potential user of financial services are analyzed;

– ***cloud technologies*** used for data consolidation and security of data storage. To do this, use cloud technology of large companies - "pioneers" of this IT market - Microsoft, Amazon, and Google. To increase the security of storage of bank and other financial data, such services are used as spam protection, anti-virus protection, protection against DDOS-attacks and other fraudulent actions, services for storing electronic signature keys, etc. The prospect of such technologies is seen in their use for the formation of mandatory financial reporting and its transfer to regulatory and supervisory authorities, as well as automatic monitoring of compliance with regulatory norms. Financial institutions are increasingly relying on the technology of startups, BigTech and other cloud service providers, as this is often the fastest way to gain access to proper expertise and data infrastructure [10];

– ***artificial neural networks or machine learning technologies*** are computer programs, the principle of operation of which is based on the work of biological neural networks, in which the functions of self-learning are embedded. Machine learning technologies have become wide-

spread in the field of credit scoring and personal data protection. Neural networks have spread as technologies of customer authorization (in ATMs, branches, etc.) behind the retina or face. In the future, specialized platforms will be created for financial transactions that take place without the participation of financial staff and the creation of offices.

Investing in financial technology: a global dimension

The global market for investment in fintech projects has intensified at the beginning of the last decade. From 2013 to 2016, the amount of investment increased almost 4 times. The number of concluded agreements has doubled during this period. In 2017, there was a decline in investment due to increased consolidation in the US fintech sector.

In 2018–2019, there was a significant revival of investment in fintech projects. The highest growth rates of investment were observed in 2018, compared to 2017, investments increased by almost 120% [11]. Investment growth in 2019 was characterized by uneven dynamics. The first half of 2019 was marked by a sharp decline in investment. The main reason for this decline was the trade wars between the United States and China, as these countries were the leaders in investing in fintech projects. According to Accenture estimates, the volume of global investment in fintech in the first half of 2019 decreased by 29%. The volume of transactions for the first half of the year amounted to 22 billion USD, which is by 9 billion USD less than in the first half of 2018 [12].

In the second half of 2019, several large agreements were concluded, which made it possible to increase investment almost to the level of 2018 (Fig. 1).

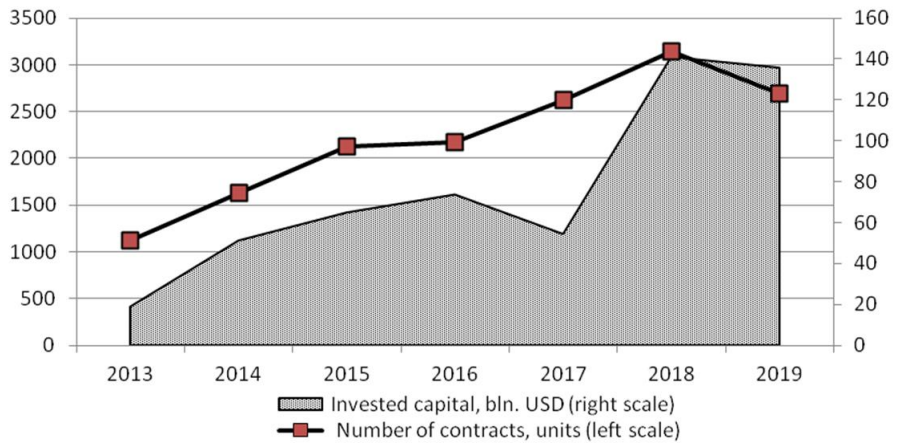

Fig. 1. Total global investments in fintech companies, 2013-2019, *bn. USD*

Source: compiled based on [13, 14].

In 2019, the invested capital amounted to 96.2% of the volume of 2018. The number of concluded agreements was 16.8% less than in the previous period, i.e. the average size of one transaction increased. Fintech began to raise funds to finance larger projects. The largest transactions were made in the third quarter. In 2019, Fidelity National Information Services (FIS) acquired Worldpay for $ 22 billion. US and Fiserv bought First Data for $ 42.5 billion. USA.

Most innovative technologies were financed as a result of mergers and acquisitions, which is associated with the consolidation of both key areas of fintech and the classic financial services market. In 2018-2019, agreements worth $ 108 billion were concluded. USA (Table 1), which is 35% more than the amount of funding in 2013-2017. Analysts predict further growth of this market segment, especially for the fintech market in the United States. According to McKinsey, this is facilitated by the following trends [15]:

– positive reaction of the market to mergers and acquisitions in fintech;

– growth of bank profitability (average return on equity of American banks increased from 8.6% in 2013 to 10.8% in 2018);

– regional banks face technological pressure that requires new decisions and the introduction of new technologies in the field of robotics and artificial intelligence;

– investments in innovative technologies will increase the profitability of the financial sector;

– in European banks, where the fintech market is larger in scale, the ratio of operating costs to assets is 60-80% lower than in US banks

Table 1

Global fintech investment market by type of invested capital in 2013–2019, *billion UAH*

Type of invested capital	2013	2014	2015	2016	2017	2018	2019
Invested venture capital	0,8	2,5	8,5	11,6	10,3	23,1	16,7
Capital invested under M&A contracts	3,5	15,6	15,8	16,6	18,9	53,5	54,2
Direct capital investment	2,4	4,0	2,5	2,0	1,4	4,3	3,1

Source: compiled based on [13, 14].

The peak year for venture financing of fintech was 2018, when agreements worth more than 23 billion dollars were concluded. USA. In 2019, funding decreased due to a decrease in the number of large projects. A small increase is observed in the financing of fintech through direct investment. If in 2013 such investments amounted to 2.4 billion dollars. USA, in 2018 they increased to 4.3 billion dollars. USA.

The number of venture agreements in 2019 was the maximum since 2013 and compared to 2018 has almost doubled (Fig. 2). Note that if the amount of invested funds has the greatest potential in the field of mergers and acquisitions, then most of the agreements were concluded by venture companies. This trend is fully in line with the policies of venture companies, which invest in riskier businesses and prefer to diversify their investments.

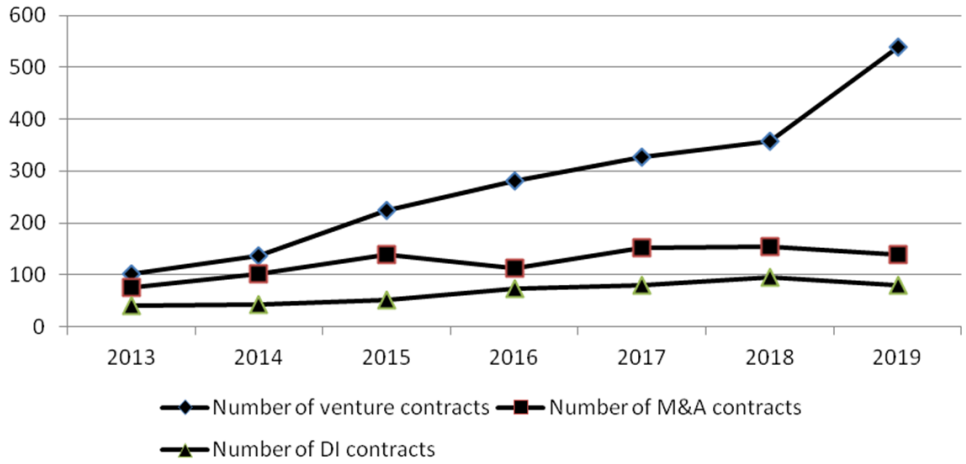

Fig. 2. Global investment market by concluded contracts in 2013-2019, *units*

Source: compiled based on [13, 14].

The average cost of one fintech deal has grown significantly over the past two years. New investments in one merger and acquisition agreement have almost tripled. This trend may indicate that investors see the prospects of the fintech market in the development and capitalization of existing companies, rather than investing in new startups and projects, as was the case a few years ago. In 2013, the volume of direct investment per transaction was

higher than in 2018 and 2019 (Fig. 3). The average cost of venture deals is also growing, indicating the viability of fintech for high-risk investors.

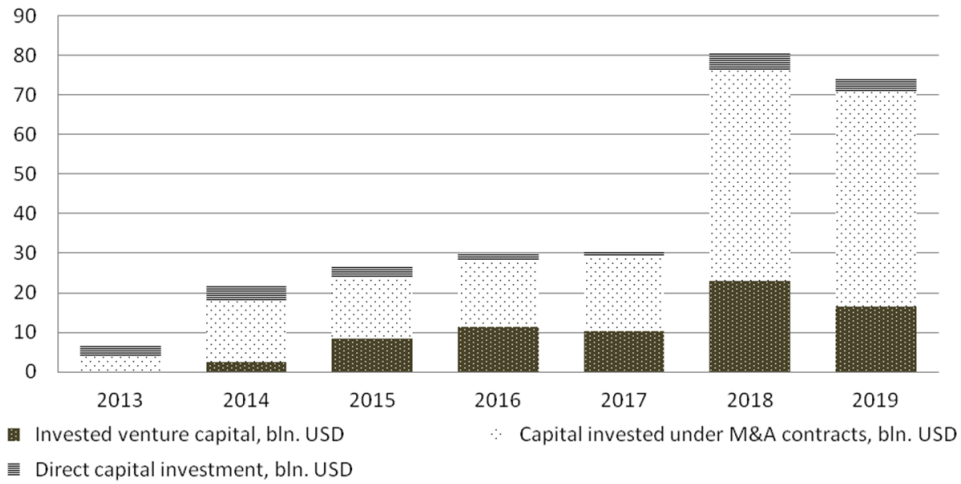

Fig. 3. Average cost of one transaction in the fintech market in 2013–2019, *million USD*

Source: compiled based on [13, 14].

Investments in financial technologies: local dimension

According to EY, the highest fintech utilization rates are among the active population in countries such as China (87%), India (87%), Russia (82%), and South Africa (82%). The coverage of fintech services is the lowest among the studied countries in USA (46%), Belgium and Luxembourg (42%), France (35%), Japan (34%). The use of financial technologies in the world, compared to 2017, has almost doubled (from 33 to 64%). The analysis by country showed that the growth in the use of fintech services in some countries increased significantly, but the growth was heterogeneous (Fig. 4).

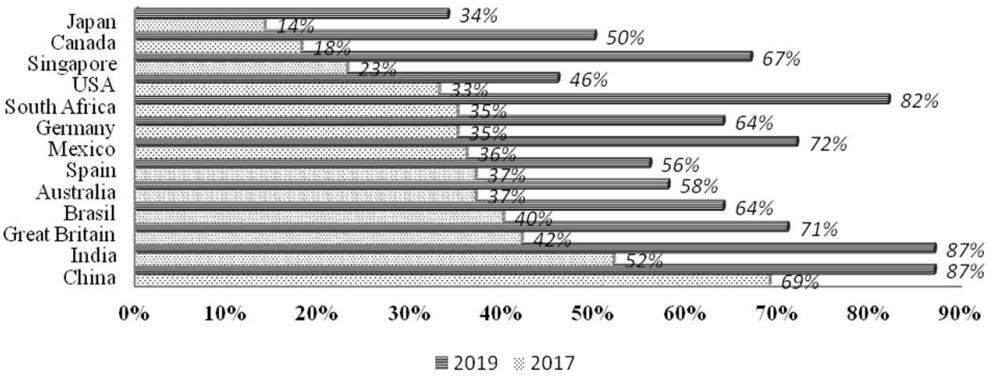

Fig. 4 Fintech utilization rate among active population by countries in 2017 and 2019

Source: compiled based on [7, 16].

It should be noted that the leaders in the rate of coverage of fintech services by the population are countries where the traditional market of financial services is less developed. Countries with developed financial services markets are more conservative and lag far behind in the implementation of fintech, despite the fact that the largest investment agreements were concluded in developed markets. In particular, in the United Kingdom and the United States, investments in the fintech industry amounted to 59.2 and 55.7 billion dollars. USA for the last two years (Table 2).

Table 2

The world's largest investments in fintech in 2018-2019.

Country	Company	Year	Scope	Amount, *bn USD*
USA				**55,7**
	First Data	2019	Platforms for investors and borrowers	22,0
	Refinitiv	2018	Platforms for investors and borrowers	17,0
	Dun & Bradstreet	2019	Platforms for investors and borrowers	6,9
	Assurance IQ	2019	IT technologies in the insurance market	3,5
	VeriFone	2018	E-platforms for payments and transactions	3,4
	Ipreo	2018	Platforms for investors and borrowers	1,9
	Investment Technology Group	2019	Trading platform	1,0
Great Britain				**59,2**
	Worldpay	2018 2019	E-platforms for payments and transactions	12,9 42,5
	Fidessa Group	2018	Platforms for investors and borrowers	2,1
	IRIS Software Group	2018	Platforms for investors and borrowers	1,7
China	Ant Financial	2018	E-platforms for payments and transactions	**14,0**
Australia	Property Exchange Australia	2019	Digital solutions on real estate market	**1,2**
India	Paytm	2019	E-platforms for payments and transactions	**1,7**
Canada	Blackhawk Network Holdings	2018	E-platforms for payments and transactions	**3,5**
Germany	Nets	2018	E-platforms for payments and transactions	**5,5**
Sweden	iZettle	2018	E-platforms for payments and transactions	**2,2**
France	eFront (France)	2019	Platforms for investors and borrowers	**1,3**
Italy	SIA (Milan)	2019	Platforms for investors and borrowers	**0,9**
Australia	AliExchange	2019	Trading platform	**2,1**

Source: compiled based on [17].

In the regional context, the largest volume of investment was recorded in the US market. Major projects have also been implemented in Canada, particularly in the area of payment technology. Investors have also shown interest in the South American market, in particular, in 2019, two large agreements were concluded in Argentina, Brazil and Mexico in the field of payments and lending.

In the European market, investments in fintech were quite significant. The agreements were concluded in the field of payments, platforms for borrowers, trading in digital assets, platforms for investment and trading, technologies for the insurance market. The geographical coverage of European countries has expanded and was not limited to certain countries. Projects were implemented in Italy, Estonia, Sweden, Germany, France, Ireland and other countries.

The countries of the Asian region occupy a rather significant niche in the implementation of fintech projects. In particular, large projects have been launched in China and India. In 2019, the People's Bank of China published a plan to support the development of fintech in the country. As noted, this plan should stimulate future investment in fintech. Emphasis is placed on investments in risk management, cybersecurity, databases, artificial intelligence, etc.

The total investment in Indian fintech was the highest in 2019 and amounted to 2.3 billion dollars. USA. A large project was implemented in the payments market and agreements were concluded in the insurance market[3].

The market of global investments in financial technologies in 2019 was distributed as follows: 1) investments in payment systems occupy 28% of the market; investments in credit markets - 25%, in third place are investments in insurance companies - 14%. PWC estimates that the fintech investment market could grow by more than $ 150 billion. USA.

In 2018, investments in global InsurTech (insurance) projects amounted to 5.7 billion dollars. USD, which is twice less than investments in the same sector in 2017 (USD 10.3 billion). Over the past five years, the largest amount of investment in the insurance business received in 2016 - 12.3 billion dollars. USA. The concentration of investment per transaction was the highest in the same year and amounted to $ 700 million. US dollars, gradually declining to $ 400 million. US in 2017 and up to UAH 200 million in 2018. Thus, over the past three years, the cost of InsurTech projects has decreased (Fig. 5).

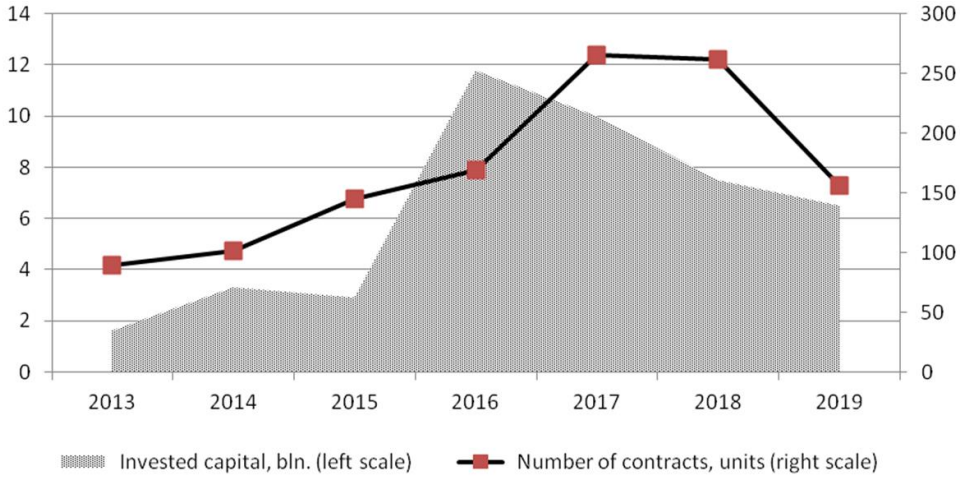

Fig. 5. Total global investments in InsurTech and insurance startups in 2013–2019
Source: compiled based on [13, 14].

For InsurTech, technologies related to process optimization, risk assessment (underwriting), data simplification, customer identification, document simplification, etc. are promising. The largest InsurTech companies are related to property insurance. Other projects that are launched into production are life and health insurance. According to Willis Towers Watson reports, the largest number of agreements is between insurance companies in the United States - 706 [18].

Other countries that are developing a promising niche in the provision of insurance services through IT technologies belong to different regions: in the UK - 118 agreements, China - 89, Germany - 59, India - 47, UAE - 14, Chile - 9, Indonesia - 6 , Kenya - 4 and others. Fintech in the insurance business is often associated with insurance medicine, which allows you to optimize the cost of coordinating the provision of services between the medical company

[3] Policy Bazaar - 152 million USD and Acko General Insurance - 65 million USD.

and the client, control costs and make the provision of services in this segment more convenient for the client.

Prospects and opportunities for Ukraine in the fintech market

In Ukraine, digitalization in the financial and other spheres is actively supported by the NBU and other state institutions[4]. Currently, innovative solutions and IT-technologies related to Regtech-technologies, creation of e-government, biometric data, etc. are being implemented quite mobile. The Ukrainian Association of Fintech and Innovative Companies provides the following structural breakdown of its members: banks (6%), IT companies (14%), microfinance organizations (14%) and fintech companies (66%).

According to GFK, in Ukraine, in 2019, 68% of the adult population of the country used the Internet, 54% went to the Internet via a smartphone. The number of those who use a smartphone to access the Internet is growing most actively (+ 17% compared to 2018); the share of those who use only computers for this purpose is declining [19].

The domestic financial services industry needs investment to implement fintech projects. For example, for processing and protection of biometric data. Banks can create a single biometric database, but this can threaten to leak information. Therefore, in Ukraine there is a need for a powerful data protection system: information protection projects can be implemented based on blockchain technologies. In the long run, the implementation of such a system for the financial sector minimizes the cost of processing customer data.

In Ukraine, there are prospects for the introduction of IT technologies in the insurance sector, which in its classic version is functioning, compared to the banking sector, not fully. In the long run, this may encourage its development. MTIBU has started to create an innovative hub to promote the implementation of InsurTech projects in the insurance market of Ukraine. This mainly applies to car insurance projects, but such innovative technologies - so-called disruptive innovation - and the Bureau's assistance in promoting innovative solutions can also be used by companies that provide other types of insurance services.

The NBU outlined the priorities for the development of fintech in Ukraine until 2025. The NBU sees its strategic directions in the development of the cash economy, increasing digital and financial literacy of the population, sustainable development of the fintech ecosystem [20]. With the support of regulators and proper legislative support, the financial services industry can interact with the systems of the State Pension Fund, the Tax Service, the notary service, bailiffs and other public services.

Financial technologies: positive and negative impact for companies and consumers

The introduction of financial technologies has a number of positive aspects for both companies and consumers of financial services. *"Digital dividends" (benefits from the introduction of digitalization and innovative solutions in the financial sector) for companies include the following benefits*: cheaper and faster provision of standard services; optimization of the work of company's employees; cheaper financial services; increased labor productivity; and the ability to provide a full range of financial services, including the related ones.

The client - in turn - also receives quite significant benefits from using innovative financial technologies. *For the consumer such advantages can be:* the inclusive potential of fintech; opportunity for the client to remotely receive both information and services; cus-

[4] In 2019, the NBU launched a project aimed at stimulating investment in the fintech industry. An Expert Council was set up to communicate with innovative companies. The NBU thus wanted to identify areas for the development of innovative financial market.

tomer mobility; reduction of client costs when receiving such services; convenience of receiving the service; ability to receive the service without reference to a certain period (for example, the working hours of a financial institution); receiving free digital products; expanding access to services for people with disabilities or those living in small settlements, and provision of alternative funding.

Along with the positive aspects, the digitalization of the financial business and the use of financial innovations has a number of negative effects and problems that require close attention and quick solutions. The main ones are: limited access to high-speed Internet in different areas, which limits the provision of services for certain groups (especially rural people); due to the displacement of standard occupations by new technologies, there will be a reduction of jobs, i.e. there will be a need for state support for personnel retraining in order to avoid decrease in the social status of some groups; emergence of new risks related to personal safety[5] and possible fraud; strengthening concentration in the financial markets, which monopolize the provision of fintech services (the companies that first introduce innovations occupy a leading or even monopolistic position); maximum dependence of man on digital technologies, loss of personal secrets, interference of companies and the government in personal preferences; and problems related to cybersecurity and loss of personal data.

Conclusions

The rapid development of financial technologies makes it possible to speak about a separate economic sector that can compete with the classic financial business. Increased investment in the fintech industry indicates the interest in the development of digital technologies of both investors and financial companies, which will reduce the cost of financial services and cover larger segments, reduce own costs, optimize business and more. Analytical data show that financial technologies will remain popular with investors in the future, given the size of the population who are is not yet provided with by fintech services.

Financial technologies are changing the landscape of traditional financial services in terms of their approach to the client due to the possibility of greater coverage, personalization and accessibility. Advanced technologies, such as blockchain, cloud technologies, BigData technologies, artificial intelligence, etc., provide access to financial payments without the customer visiting the banking institution. Increased public access to mobile Internet and greater purchases of smartphones by individuals have made it possible to conduct financial transactions anytime and anywhere.

Banking and financial crises have reduced consumer confidence in traditional financial services. The level of consumers' perception of fintech is not so negative. Demand for fintech products, especially for those related to remittances, is generated by migrant workers and refugees. Such demand is also generated by individuals with a limited access to branches of financial institutions in small settlements.

Investments in financial technologies increase every year. From the beginning of the recent decade, the years 2018-2019 became the peak years for global investments in fintech. The largest sources of investment in fintech were mergers and acquisitions, venture capital and direct capital investment. The concentration of investments in fintech has greatly increased, and the average cost of one transaction almost doubled in the recent two years.

[5] In Ukraine in May 2020, a scandalous situation arose when a Telegram bot began to sell data on Ukrainian driver's licenses. The public services application "Diya" (Action) was suspected of involvement in the leak of information. Although the information on the merging of databases was not confirmed, the theft of databases was not refuted, which provoked a discussion about the technological possibilities of ensuring the protection of personal information.

Investors see the prospects of the fintech market in the development and capitalization of existing companies.

In the regional context, the most promising markets for fintech investments are the United States and the United Kingdom. At the same time, other regions begin to actively develop their own fintech projects. In particular, there is an increase in fintech investment on the markets of the Asian region (China, India, Singapore, Hong Kong, etc.) and in the European market. The markets of Latin America too are promising in the fintech sphere, where one can observe a high level of digitalization coverage of the active population.

For Ukraine, the fintech market is quite promising, given such factors as high interest in such technologies shown both by regulators (including the NBU) and by IT business, low efficiency of traditional financial services, high Internet penetration, and the growing share of adults who use digital technologies.

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ТРАНСФОРМАЦІЯ ІНДУСТРІЇ ФІНАНСОВИХ ПОСЛУГ ПІД ВПЛИВОМ ФІНТЕХУ: ГЛОБАЛЬНИЙ ТА РЕГІОНАЛЬНИЙ ВИМІРИ

Дано визначення поняття "фінтех" як інноваційної галузі та як фінансового продукту. Узагальнено процеси та можливості використання інноваційних технологій, – зокрема блокчейну, штучного інтелекту, Big Data, хмарних технологій, штучних нейронних мереж, технологій машинного навчання – для індустрії фінансових послуг. Визначено перспективність застосування таких інноваційних технологій для розширення кредитування, зменшення кредитних, інвестиційних та інших ризиків, персоналізації фінансових пропозицій для клієнта, трейдингу, грошових переказів, страхового бізнесу та ін.

Проаналізовано світові інвестиції в фінтех у період з 2013 р. по 2019 р. Зроблено висновок про збільшення загальних обсягів інвестицій та зростання середньої вартості однієї угоди за останні два роки. Проаналізовано застосування фінтеху для локальних ринків та у різних сферах індустрії фінансових послуг, зокрема інвестиції в InsurTech.

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Розкрито можливості впровадження фінтеху в регіональному розрізі. Зроблено висновок про зростання охоплення фінтех-послугами населення країн, де традиційний ринок фінансових послуг є менш розвиненим. Країнам із розвиненим фінансовим ринком притаманний консервативний підхід та відставання у впровадженні фінансових технологій. При цьому зазначено високий рівень концентрації інвестицій саме на розвинених ринках.

Зроблено висновок про перспективність упровадження діджиталізації у фінансовій та інших галузях в Україні, зокрема це стосується безготівкових розрахунків страхових компаній, грошових переказів та послуг, що пов'язані з RegTech. Виділено пріоритети розвитку фінтеху в Україні в частині підвищення цифрової грамотності, кешлес-економіки, розвитку фінтех-екосистем.

Розглянуто позитивний та негативний ефекти від впровадження фінтеху. Підкреслено, що проблеми, які потребують вирішення, стосуються ризиків, пов'язаних із персональною безпекою, втручанням в особисте життя, втратою персональних даних, кібербезпекою, скороченням робочих місць тощо[7].

Ключові слова: *фінтех, інвестиції, цифрові технології, індустрія фінансових послуг, діджиталізація, штучний інтелект, блокчейн, хмарні технології*

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