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# DEVELOPMENT OF FINANCIAL INNOVATIONS IN THE CONDITIONS OF DIGITALIZATION OF THE ECONOMY

## ABSTRACT

The paper is devoted to the features of the development of the financial innovation market, since the digitalization of the economy has significantly influenced the vectors of the formation of financial technologies and new innovative financial products, and also contributed to their transformation. The purpose of this research is to study the market of financial innovations and identify threats to the development of this market, as well as the formation of directions for further development. In the course of the study, it was found that traditional approaches to the provision of financial services do not meet the growing demand and expectations of customers, the requirements of high efficiency, and profitability. In this paper, FinTech companies and FinTech services are defined as the newest instrument in the financial innovation market that satisfies the current requirements of the modern development of national economies. The study examines current trends and characteristics of financial innovations. The main principles for the introduction of financial innovations are determined, in particular: accessibility, growth point, targeting, diversity of media, openness, and cooperation, standardization, confidence, and security. The role of FinTech companies and FinTech technologies in the modernization of the financial services market has been revealed; the current global trends in the development of the FinTech sphere, as well as the prospects for its use, are explored. The FinTech boom at the end of 2021 quickly morphed into recession fears in the first half of 2022, as uncertainty surrounding a full-scale Russian military invasion of Ukraine, ongoing supply chain issues, and rising inflation and interest rates, took its toll on both states and businesses.

The advantages and disadvantages for the banking business, caused by the digitalization of the economy, are identified, as well as an increase in the need for the development and implementation of new financial innovations. It is concluded that the current stage of digitalization of the economy has determined the trends and directions for the development of the financial services market and the banking sector in particular.

**Keywords:** financial innovations, digitalization of the economy, financial services sector, banks, FinTech companies, neobanking, risks

**JEL Classification:** G21, O31

## INTRODUCTION

The modern development of the national economies is focused on the development of digital products and services, especially in the financial and banking sectors. In turn, the concept of the development of financial markets is associated with the use of the latest technologies, based on the capabilities and needs of financial institutions. The economic crisis consequences and the intensification of global challenges caused by the spread of the COVID-19 pandemic have increased attention to the problem of financial inclusion and the wider use of instruments for remote and contactless services. The digitalization of the financial space not only reduces costs, speeds up transactions, and makes them safer and more transparent, but at the same time allows to use the financial products adapted to the needs of the most vulnerable groups of consumers (Naumenkova, S., Mishchenko, S., 2020) [1].

The current state of national economies' competitiveness as the indicator of strengthening their positions on the global stage requires special attention to the issue of innovative development. The global financial crisis of 2008 showed that most of the innovative achievements that were gained earlier have been lost. Therefore, the Digital Order for the EU was adopted, in accordance with which the strategic vectors of long-term transformations associated with the digitalization of economies were determined [2]. According to "A Digital Agenda for Europe", the solution of common tasks is envisaged in such areas as: a unified digital market; compatibility and standards; confidence and security; fast Internet access; research and innovation; development of digital literacy, skills, and inclusion [3]. By 2025, the target parameters for digitalization in Europe have been set, namely: 15% of small and medium enterprises should sell abroad via the Internet; Europe should save 26 billion tons of CO<sub>2</sub> emissions by digitizing resource-intensive sectors; retrain most of its workforce; most European enterprises should have a transparent and straight cyber-security strategy; European states should spend 3% of their GDP on research and innovations; 75% of EU citizens should be using eGovernment application; 25% of the global-scale 'unicorns' should be hosted in Europe (as of January 2022, there are over 981 unicorns in the world for a total cumulative value of \$ 3'220 billion) [4; 5].

It is worth to be noted, that crisis shocks undermine the credibility of financial intermediaries, which is caused by the specific characteristics of this form of doing business. In this regard, US Congress introduced an amendment regarding the restoration of the Glass-Steagall Law, which prohibits the localization of various forms of financial institutions [6]. The economic systems in the world are undergoing such a new phenomenon as the acceleration of economic cyclicality. Therefore, each state strives for leadership in innovation, and obtaining new knowledge. Thus, it can be stated that for 20 years Switzerland has been ranked first in the global innovation index in terms of creating the necessary conditions for innovation activities [7].

The modern development of national economies is associated with technogenic disasters, the recurrence of COVID-19 outbreaks, as well as the result of political instability in the world due to the full-scale military Russian invasion of Ukraine. Under these conditions, the problem of the development of the innovative component of the economy is actualized, since the physical supply of financial services itself is in many cases impossible. Therefore, governments of all countries are making efforts to create a favorable climate for the development of innovations in various fields. These intentions contribute to the further development of a new generation of economies, namely the digital economy. The digitalization of the economy has determined the vectors for the development of financial intermediaries, which, in turn, set the priorities for digital initiatives, linking them to their own corporate strategy and ethics.

## LITERATURE REVIEW

During the last decade, more and more scientists are paying attention to the problems and prospects for the development of the financial innovation market. The paper of S. Mishchenko identifies the main advantages of using financial innovations by financial intermediaries, namely: the growth of their income; increasing competitiveness both in the national and international markets; increasing the level of confidence of economic entities and households; maintaining a sustainable image policy.

The researcher also argues that increasing the role of para banking financial institutions is an independent systemic innovation in the face of the weakening of the bank-centricity of the financial services market (Mishchenko, S., 2010) [8].

The most acceptable concept of "financial innovation" is: "the result of a creative search for a new approach to solving problems in the financial sector, which is realized through the creation and diffusion of new financial products, services, instruments, technologies, processes and organizational forms focused on the effective management of financial resources and risks, ensuring financial stability and competitiveness in the face of variability, uncertainty and information asymmetry of the economic environment" (Pantelieieva, N., 2017). [9]. According to González-Páramo, interest in innovation on the part of financial intermediaries is associated with the concept of "diffusion of innovations", the main forms of which are: transition, adaptation, integration, development of financial innovations, as well as the creation of new financial institutions (González-Páramo, José Manuel, 2018) [10].

The use of financial Internet technologies causes the need to develop complex schemes for accessing payment systems, and most importantly, compliance with the requirements for the protection of the personal data of customers and financial institutions. In this context, the principles of digital financial intermediation proposed by the G20 must be considered (G20 Principles for Innovative Financial Inclusion, 2010) [11]. The document "Principles for Innovative Financial Inclusion" states the following: accessibility, goal setting, point of growth, unification, openness, as well as confidence and security of the client audience.

The authors of the publication (Abbasov, A. et al, 2020) [12] identified current trends regarding the classification of financial innovations. The object of financial innovations acted as a classification feature. Thus, financial innovations were distributed depending on the place of their origin and functioning.

When introducing digital financial services, it is advisable to assess the opportunities and risks. The study (Itai, A. et al., 2020) [13] identified opportunities to expand digital financial services during the COVID-19 crisis in five areas: payments and transfers of governments, businesses and households, and lending to enterprises and individuals. At the same time, the emphasis is placed on the fact that the development of financial technologies can enable governments to better supervise consumer spending patterns in real time; digital payroll and tax payments ensure social distancing, as well as being cost-effective and safer; digital financial computing can transform payments, securities settlement, and back-office functions by reducing costs and enabling direct business-to-business (B2B) transactions without intermediaries; contactless digital payments for P2P transfers and in-store purchases can help in maintaining social distancing and reduce the potential spread of COVID-19; digital forms of payment, including mobile money and digital currencies, can facilitate the processing of remittances during a crisis; digitization of P2G payments, in addition to the benefits of social distancing, can increase tax revenue; various technologies can be useful for business lending, especially during a crisis; P2P lending platforms can offer benefits and these can increase in times of crisis (Itai, A. et al., 2020) [13].

At the same time, the authors of the study highlight the risks present in the expansion of digital financial services during the COVID-19 crisis, namely: encompassing transition to digital financial services, which can be stimulated during a pandemic, may initially exacerbate income and gender inequalities, as well as widen the gap between rural and urban areas and between young and old; the exposure of digital financial services to cyber-attacks, digital fraud, and even raids could become more common; conflicts between rapidly facilitating access to mobile payments and maintaining proper 'Know-Your-Customer' procedures and anti-money laundering compliance; a massive shift to digital financial services could raise concerns about the "state of surveillance" – data privacy and monopoly (Itai, A. et al, 2020; Auer, R., et al., 2020) [13; 14].

The study (Istomina, A. et al., 2020) [15] argues the competitiveness strategy of countries and regions should be developed based on the leading role of digitalization of the economy in all its aspects. To confirm this hypothesis, the factors covered by the Global Competitiveness Index were used, namely: institutions, infrastructure, use of specific information and communication technologies, macroeconomic stability, health, skills, food market, labor market, financial system, market size, business dynamism and innovation. These indicators are grouped into four categories – Opportunity, Environment, Human Capital, Markets, and Innovation Ecosystem. It is concluded that investments in digital infrastructure are considered the main condition for maintaining and developing international competitiveness. The development of the digital economy can contribute to the process of convergence and overcoming development gaps between regions (Istomina, A. et al., 2020) [15].

In confirmation of the above research, attention should be paid to the paper (Brunetti, F. et al, 2019) [16], which proves digital transformation is a pervasive problem of regional innovation. This evidence stems from the fact that digital transformation requires a multifaceted set of strategic actions, grouped by the researches into three main areas:

- "Culture and Skills" includes three strategic areas of activity: digital education, talents, and digital culture;
- "Infrastructure and Technology" points to the need for information, interaction and artificial intelligence as key strategic fields of action "Ecosystems" emphasizes the importance of investing in medium and longterm plans, partnerships and quality of life.

This study shows that individual measures are not enough for the transition from systemic digitalization to digital technologies (Brunetti, F. et al, 2019) [16].

A separate issue remains the role of a state in the era of digitalization, as well as the managerial and legal aspects of the symbiosis of banks and FinTech companies (Nagy, H., 2018; Vovk, V. et al., 2021; Skrynnik, O., 2020) [17-19]. Existing scientific research highlights the need to build new digital competencies of public administrations to create the necessary policies and platforms for the facilitation of work; improvement of legislation in the field of cooperation between banks and FinTech companies; security and data protection in the design of organizational development systems based on artificial intelligence.

## AIMS AND OBJECTIVES

The aim of this paper is to study the market of financial innovations, identify threats to the development of this market as well as the formation directions for further development.

To achieve the purpose the following tasks were defined:

- to substantiate of theoretical and methodological aspects of the development of the financial innovation market in the context of digitalization;
- to determine the modern classification of financial innovations in the financial sector;
- to analyze the current state of the financial innovation market on a global scale;
- to identify advantages and threats for the symbiosis of FinTech and banking business;
- to develop recommendations for the further development of the financial innovation market.

## METHODS

The object of the study is the process of managing the development of financial innovations in the context of the digitalization of the economy.

Achieving the goals of the paper is possible through the use of such research methods as:

- systemic and dialectical approaches in studying the essence of financial innovations and their classification;
- calculation and analytical, graphical methods, and coefficient analysis in the study of the effectiveness' dynamics of the introduction of financial innovations;
- comparison in assessing the level of implementation of financial innovations in the global and regional context;
- method of expert assessments in determining the risks and benefits for the banking sector arising from FinTech;
- comparative analysis in determining the main directions for improving the development of the financial innovation market.

The study is based on the following working hypothesis.

## RESULTS

The economists' scientific community has gained achievements in the field of FinTech, however, there are topical issues of improving the procedures for developing and implementing new innovative financial technologies in practice. The question of the advantages and disadvantages of FinTech brings into financial intermediaries, especially banks, remains open. As defined in a scientific article (Desai, Kshitika Ramesh et al., 2019) [20], FinTech is an innovative way of using technology in the development and provision of financial services, transforming the banking business through the use of AI, Big Data technologies, digital payments.

The term "FinTech" itself is a combination of the words "finance" and "technology", which reveals the essential content of modern technologies related to the Internet (for example, artificial intelligence, Big Data, cloud technology, mobile Internet) with the field of financial services (e.g. lending, banking) (Gomber, P et al, 2017) [21].

The term "FinTech" (sometimes: fintech, or Fintech) is a neologism, derived from the words "finance" and "technology" and describes the combination of modern technologies related to the Internet (for example, artificial intelligence, Big Data, cloud technology, mobile Internet) with the financial services industry (for example, lending, digital payments, B2B services) (Gomber, P et. al, 2017) [21].

Considering the transformation of financial services, it should be noted that their range has grown significantly. In particular, FinTech includes:

- payment-related products — mobile payments, e-commerce, P2P transfers, and alternative payment instruments; blockchain technologies are exceedingly notable, in particular, cryptocurrency;
- financing instruments that represent an alternative to banking institutions in terms of lending – crowdfunding, factoring and in terms of an investment business – asset management tools – private finance management, robo-trading, risk management;
- technologies mediating the provision of financial services – data-mining tools, marketplace;
- services associated with RegTech industry regulation (regulatory technologies), aimed at ensuring compliance with supervised regulatory requirements and SupTech (supervisory technologies), which contribute to the implementation of regulatory functions by regulators (Reinig, S.et. al, 2018) [22].

The TOP 10 leading FinTech companies in the world in the first half of 2022 include the companies presented in Tab. 1 [23].

**Table 1. Top 10 global FinTech deals in H1 2022.** (Source: [23])

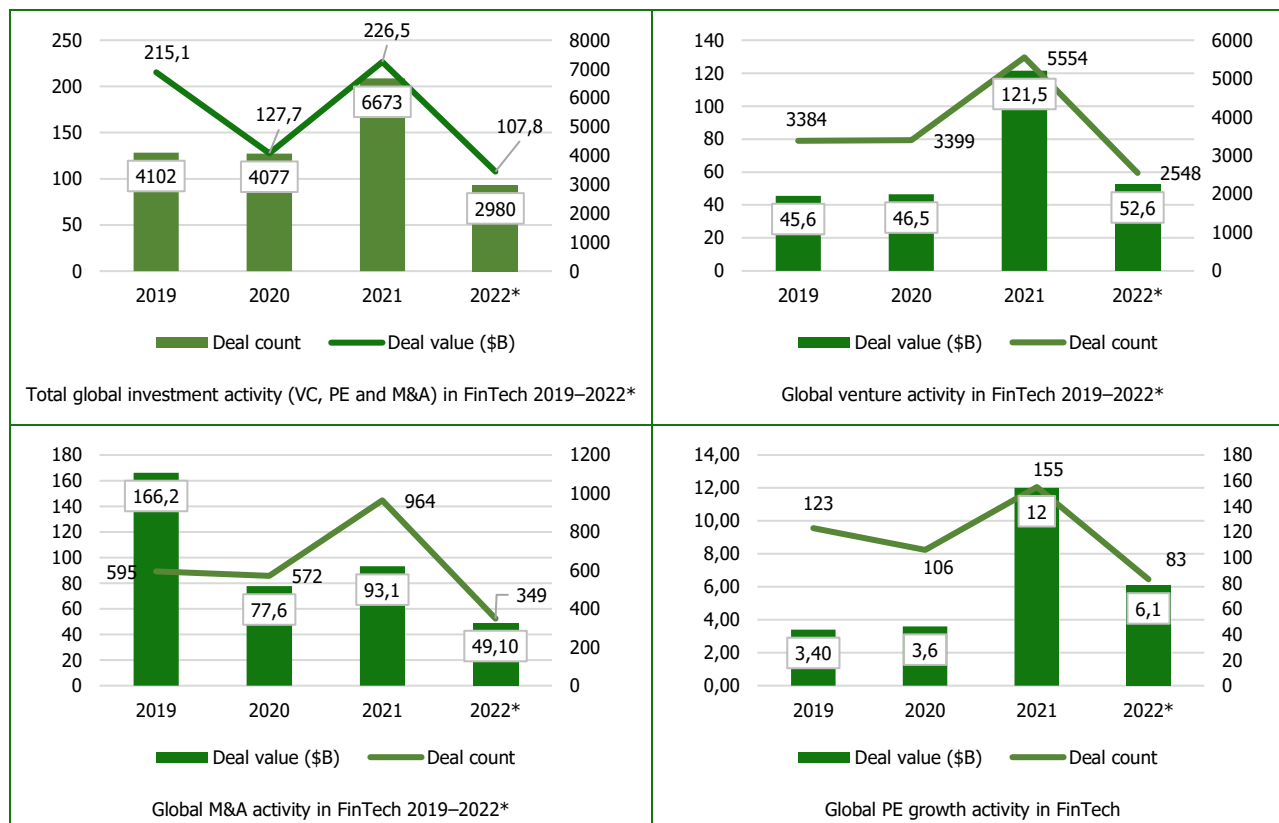
FinTech-company	Volume of investments, USD	Country	Financial services
Afterpay	27.9 B	Melbourne, Australia	Payments, M&A
Sia (Milan)	3.9 B	Milan, Italy	Payments, M&A
Bottomline Technologies	2.6 B	Portsmouth, US	Institutional/B2B, Public-to-private buyout
Yayoi	2.1B	Tokyo, Japan	Institutional/B2B, Corporate divestiture
Interactive Investor	1.8 B	Leeds, UK	Wealth/investment management, M&A
FNZ	1.4B	London, UK	Wealth/investment management, M&A
SimpleNexus	1.2B	Lehi, US	Lending, M&A
Trade Republic	1.15 B	Berlin, Germany	Capital markets, Series C
Technisys	1.1B	Miami, US	Institutional/B2B, M&A
Superhero	1.06B	Sydney, Australia	Wealth/investment management, M&A

It should be noted, that in 2021 the following financial institutions received BAI Global Innovation Awards:

- *Innovation in Consumer Goods or Services* – Commonwealth Bank (Australia). It is a large-scale digital experience integrated into the CommBank banking app that leverages outreach, data assets, artificial intelligence, and a marketing engine. It aims to combat the stubborn global phenomenon of unclaimed benefits.
- *Innovations in Digital Transformation* – Deutsche Bank (Germany) API Program “Embedded Finance Initiative”. With Embedded Finance, non-banks can seamlessly integrate complete financial products into their own offerings and IT systems through digital interfaces also referred to as application programming interfaces or APIs. The Embedded Finance Initiative is based on the principle of “API first”: whenever a new digital banking product is developed, existing APIs should be directly used or developed.
- *Innovation in Human Capital* – Payactiv Livelihood Employee Experience Platform. Payactiv is leveling the playing field for millions of low-income hourly workers by not making them wait for a paycheck before accessing their wages. Payactiv offers a suite of financial services that include access to earned wages, savings and budgeting instruments, bill payment, employee communication and shift planning tools, discount market, and financial health measurement.
- *Innovation in improving internal processes* – Bank Polski has developed a path to paperless banking thanks to blockchain technology. It should be noted that Bank Polski developed the first and second generations of the service with Poland's leading trust service provider National Clearing House and technology partners start-up Coinfirm and IBM. The service is used by retail customers of Bank Polski (about 35% of the Polish market), as well as customers of other banks.
- *Small Business Product or Service Innovation* – Santander Bank (North America). Santander Treasury Fusion, using the FISPAN platform, allows the bank to expand its treasury services by directly connecting the bank to its customers' ERP and accounting systems. Clients will use this two-way communication to streamline their payments, journal entries, and reconciliations, and to provide them with an up-to-date view of their accounts [24].

Considering investing in FinTech on a global scale, it should be noted their decline from USD 111.2 billion (3372 transactions) in the second half of 2022 to USD 107.8 billion (2980 transactions) in the corresponding half of 2021. Discovering investment trends in the regional global context, it is marked a decrease in investment for FinTech and transactions in North and South America, as well as in the EMEA region. At the same time, in the Asia-Pacific region, the volume of investments increased significantly, while the volume of transactions itself decreased. This trend in the Asia-Pacific region has developed over a set of three major M&A transactions, namely: Block's acquisition of Australian Afterpay for USD 27.9

billion, KKR's buyout of Japanese Yayoi for USD 2.1 billion, and the merger of Australian FinTech companies Superhero and Swiftx (Fig. 1) [23].



**Figure 1. Global analysis of investments in FinTech in 2019-2022.** (Source: Pulse of FinTech H1'22, Global Analysis of Investment in FinTech, KPMG International, \*as of 30 June 2022)

At the same time, the payments sector accounted for the largest share of investment in FinTech, which amounted to \$43.6 billion in the first half of 2022, followed by crypto-currencies at USD 14.2 billion.

It should be noted that the rapid development of the financial technology market at the end of 2021 quickly translated into fears of a potential recession in the first half of 2022, as the uncertainty associated with Russia's full-scale military invasion in Ukraine, ongoing problems in the supply chain, rising inflation and interest rates, affected both the government levels and private companies.

It is worth noting that with the development of the financial innovation market, the banking business is also undergoing strong changes. Increasingly, there are questions about what positive gives FinTech to the banking business, and what threats it poses to maintaining its stability and sustainable growth. In this regard, the developments presented in the scientific paper (Vovk, V. et al., 2021) [18] deserve attention. The study concluded that the policy of banks' digitalization should be tied to the stages of its life cycle. Researchers identify such stages, as well as the elements of digitalization inherent in it.

The formation of a bank – a traditional or simulation model of digitalization based on the experience of leading banks and improving the quality of service.

The maturity of a bank – the policy of digitalization aggressiveness, and close cooperation with FinTech start-ups. This stage requires significant investment and training of highly qualified personnel.

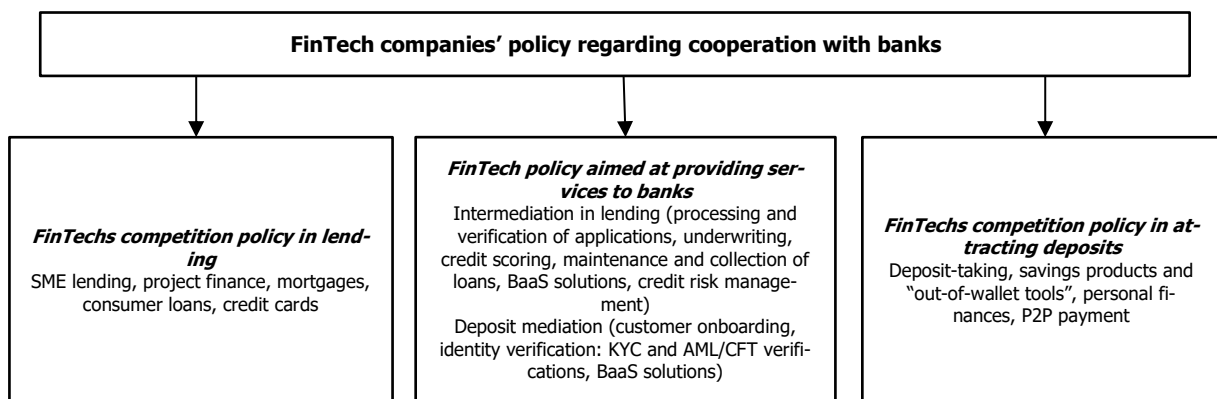
The bank's business activity – a defensive innovation policy is used to maintain a competitive position with a transition to an aggressive one.

At the same time, the fundamental business model of a bank's functioning is in attracting and allocating of financial resources, with the obligatory fulfillment key function of their activity - transformational. FinTech companies, on the other hand, penetrate various stages in the financial intermediation chain by offering specialized services. Such a symbiosis can be traced based on the policy of a FinTech company in relation to banks (Fig. 2) [25].

Based on the presented Fig. 2, the symbiosis between FinTech and banks carries both positive and negative aspects, which include:

- direct competition for the same services;
- use of FinTech services by banks in mergers and acquisitions;
- the use of third-party services may cause certain problems if they are part of the risk management system (compliance, KYC-systems, anti-money laundering, terrorist financing, proliferation of weapons of mass destruction);
- the provision of banking services by FinTech companies under less stringent rules and regulations than in the case of banks (threat of systemic risk);
- competition between traditional and neobanks, the activity of the second ones are often not fully licensed.

As a result, the positive moment in the interaction between FinTech and banks leads to an improvement in the quality of service, optimization of business processes, as well as the use of digital technologies for making management decisions.



**Figure 2. Characteristics of FinTech policies on cooperation with banks.** (Source: [25])

The current state of development of banking is accompanied by the strengthening of such a model as neobanks. These are banks that have a traditional set of services but without a network of physical branches. In order to sell banking products and provide services, they use mobile applications, websites, and social media accounts. The convenience of neobank for using its services is seen through a simple interface, a powerful remote support service and understandable tariffs.

As of September 2022, there are 281 neobanks in the world, including Neobanks for Business (Biz) and Neobanks for Teens (Tab. 2) [26].

**Table 2. Best Neobanks by some regions of the world in 2022.** (Source: [26])

Nº	Neobank name and country of origin
1.	<i>The Top 15 Best Neobanks in the US in 2022:</i> Chime; M1 Finance; Acorns; Wise (Transferwise); Bank Mobile; Revolut; JUNO, Varo; OnJuno; MoneyLion; Current; World Remit; Skrill; TransferGo; Monzo
2.	<i>The 10 Best Neobanks and Mobile Banks in the UK in 2022:</i> Bunq, Monese; Finco Bank; Curve; Wise (Transferwise); Revolut; Starling Ban; Lydia, Suits Me, Tandem
3.	<i>Neobanks in Europe in September 2022:</i> Bankino (Iran); Bettr (South Africa); Dopay (Egypt); Go Solo (United Kingdom); Hala (Saudi Arabia); ila (Bahrain -n (Saudi Arabia); Opay (Nigeria); Pepper (Israel); TransferGo (United-Kingdom); VBank (Nigeria); Wise (Transferwise) (United Kingdom); World Remit (United Kingdom); Xpence (United Arab Emirates)
4.	<i>The 10 Best Neobanks and Mobile Banks in Germany in 2022:</i> Bunq (Netherlands); Curve (United Kingdom); Wise (Transferwise) (United Kingdom); Sogexia (Luxembourg); Revolut (United Kingdom); Lydia (France); Vivid Money (Germany); World Remit (United Kingdom); Skrill (United Kingdom); TransferGo (United Kingdom)

In general, considering the number of neobanks in the world, it should be noted that in 2022 there were 89 of them in Europe; 71 – in North America; 47 – in Asia-Pacific region; 17 – in Africa & Middle East.

The activities of neobanks are mainly focused on serving younger people with low incomes and low credit ratings, providing loans to small and medium-sized businesses. These loans are mostly unsecured and are concentrated for placement in risky sectors.

Regarding Ukraine, it should be noted that innovative technologies are increasingly penetrating into the banking business. One of the goals of the National Bank of Ukraine, which is defined in the "Strategy for the development of FinTech in Ukraine until 2025", is a movement toward the activation of financial technologies and open banking practices. This goal supports the transition of society to digital banking [27]. Today, such neobanks as O. Bank, TodoBank from A-Bank, Izibank, Sportbank, and Monobank are developing and operating in Ukraine. Some banks have their own online platforms, namely "Oschad 24/7", "Privat24", "iPUMB", "UniCredit Online". According to the forecasts of the Statista portal, the penetration of online banking by 2025 will be 22% of the Ukrainian population, while 15% in 2021.

It is worth marking that both in global practice and in Ukraine, the development of neobanks is subject to certain risks. These include technological and operational risks, as well as cyber-attacks. For example, DDoS attacks can harm neobanking in terms of business continuity. These attacks are aimed at blocking network entry, and interrupting or suspending host services through remote control by malicious software. It can be stated that Ukraine is not yet included in the top rating of countries subject to DDoS attacks, but at the beginning of 2022 it was subjected to them several times, and the banking sector is not an exception (Fig. 3) [28].

Another risk affecting the development of neobanks is the misuse of a database. Using the cross-industry activity of FinTech companies, they can collect client information that is beyond the reach of traditional banks. Therefore, violation of data privacy, property rights and security can reduce the credibility of neobanking.

The authors of the article agree with the arguments of (Shmuratko, Ya. et al., 2019), that financial innovations affect the banking business through a change in the structure of the financial services market. The power of pressure depends on the appearance of the same innovations, as well as their implementation on the market. The development of the banking business is influenced by competition from para-banking institutions, in particular FinTech companies. They have financial assets at their disposal and satisfy the same or similar needs as banks [29].

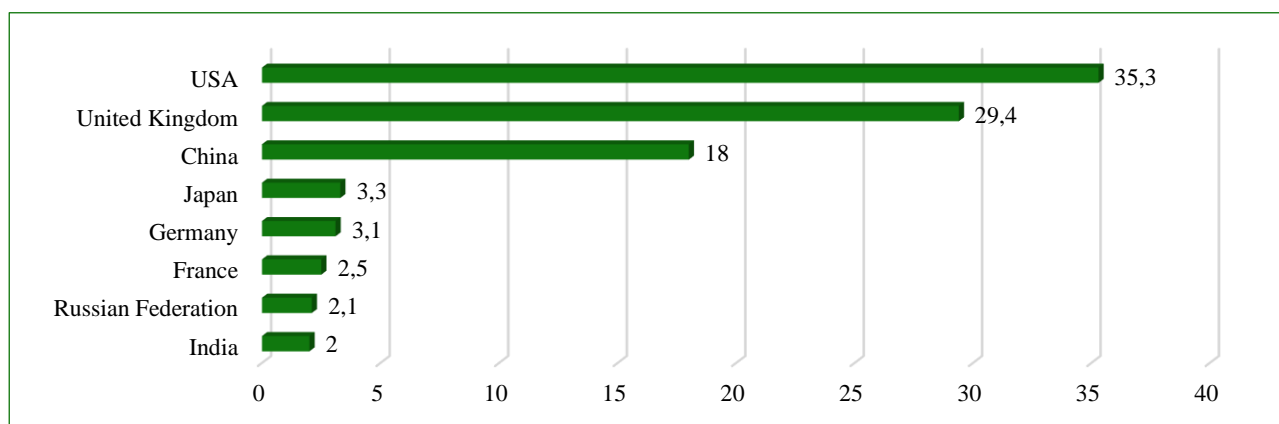


Figure 3. DDoS attacks on the global scale in 2021, %. (Source: [28])

Thus, modern banking operates in conditions of increased competition, which in certain cycles of its development acts as aggressive. Therefore, in order to maintain their own competitive positions, both traditional banks and neobanks need to offer a range of products and services, which can compete with the fast-growing FinTech sector.

It can be stated that in its evolutionary development, FinTech was originally an alternative and a threat to traditional banking, but today the introduction of these innovations enables banks to compete with FinTech companies.

## DISCUSSION

The purpose of this study was to substantiate the importance of the development of the financial innovation market, to identify threats to the development of this market, as well as to form directions for further development. It is proved that in the context of the ongoing COVID-18 pandemic, as well as martial law in Ukraine, which has a great impact on the development of the global economy, the development of the financial innovation market acquires a different role of worldview and awareness to accept it.

In continuation of the discussed questions, it should be noted that when studying the FinTech market, banks always remain leaders. They are the most controlled and managed by the regulatory authorities. Therefore, the risk of conducting operations by neobanks is reduced to zero.

Looking back, H1 2022 can be summed up in one word: unexpected. Let's take a look at some of the key trends in the FinTech sector over the past 6 months:

- decline in investment in most jurisdictions, especially between the first and second quarters of 2022;
- the closing of the IPO window due to turmoil in the public markets and rapidly falling valuations;
- continued strength of the payments sector in many jurisdictions;
- increased attention to automation in the field of cybersecurity, given the ever-increasing number of problems that need to be studied;
- a growing variety of jurisdictions attracting investments in FinTech, in particular, venture capital rounds worth more than USD 100 million.

The predicted data regarding the development of the FinTech market remain controversial issues, namely: more and more banks will offer embedded solutions; embedded finance proposals will be subject to increasingly stringent regulatory scrutiny; FinTech companies will focus on positioning themselves as data organizations; FinTech companies focused on ESG will have a large growth trajectory; more attention will be given to making deals in underdeveloped regions; 'unicorn' status will lose some of its glitters in mature markets, but will remain key in emerging markets.

All these questions are debatable and topical from the standpoint of maintaining stability and balance in the global market for financial innovations.

## CONCLUSIONS

The digitalization of economies at the international and national tiers has determined the trends for the further development of financial intermediaries. In this regard, they should concentrate their potential opportunities, which, among other, are: the priority on digital initiatives with their clear coordination in the developed corporate development strategy; the embodiment of digital initiatives in key performance indicators, assessing the increase in business value before and after the introduction of financial innovations. At the same time, the analysis of the effectiveness of financial innovations' introduction should be based on an assessment of the results obtained in terms of their impact on the level of competitiveness, financial stability, profitability, and business reputation.

It is advisable to evaluate the effectiveness of financial innovation for the client base in accordance with the results of its implementation, existing requirements and needs, which consist of the perception of financial innovation in terms of quality, accessibility, and cost. Consistency of all measures for the introduction of financial innovations should help to increase the level of innovation and efficiency of financial intermediaries.

It is very difficult to predict what the banking business will be like in the future or what role traditional banks will play, but this role will naturally transform. This is confirmed by the growing demand from banks to improve customer service, and the introduction of cloud platforms to provide greater scalability. Moreover, modern banks use such digital technologies as paperless document management, electronic signatures, and biometric verification. The main factor that acts as a limiting feature for market growth is the difficulty of integrating digital banking with traditional platforms.

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## **РОЗВИТОК ФІНАНСОВИХ ІННОВАЦІЙ В УМОВАХ ЦИФРОВІЗАЦІЇ ЕКОНОМІКИ**

Стаття присвячена особливостям розвитку ринку фінансових інновацій, оскільки цифровізація економіки суттєво вплинула на вектори формування фінансових технологій та нових інноваційних фінансових продуктів, а також сприяла їхній трансформації. Метою цього дослідження є вивчення ринку фінансових інновацій, виявлення загроз для розвитку цього ринку, а також формування напрямів подальшого розвитку. У ході дослідження було встановлено, що традиційні підходи до надання фінансових послуг не відповідають зростаючому попиту й очікуванням клієнтів, вимогам високої ефективності та прибутковості. У цій роботі ФінТех-компанії та ФінТех-послуги визначено як новітній інструмент на ринку фінансових інновацій, що відповідає сучасним вимогам розвитку національних економік. Визначено основні принципи запровадження фінансових інновацій, зокрема: доступність, точка зростання, адресність, різноманітність медіа, відкритість та співпраця, стандартизація, довіра та безпека. Розкрито роль ФінТех-компаній та ФінТех-технологій у модернізації ринку фінансових послуг; досліджено сучасні світові тенденції розвитку сфери ФінТех, а також перспективи їх використання. Доведено, що стрімкий розвиток ринку фінансових технологій наприкінці 2021 р. швидко трансформувався в побоювання з приводу потенційної рецесії в першому півріччі 2022 р., оскільки невизначеність, пов'язана з повномасштабним військовим уторгненням Росії в Україну, поточними проблемами в ланцюжку поставок, зростанням інфляції та процентних ставок, зробили негативний відбиток і на державних рівнях, і на приватних компаніях.

Визначено переваги та загрози для банківського бізнесу, які зумовлені поширенням цифровізації економіки та впливають на появу нових фінансових інновацій. Зроблено висновок, що сучасний етап цифровізації економіки визначив тренди та напрями розвитку ринку фінансових послуг та банківського сектора зокрема.

**Ключові слова:** фінансові інновації, цифровізація економіки, сектор фінансових послуг, банки, компанії FinTech, необанкінг, ризики

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