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V. Rysin[1], R. Pechenko[2]
Lviv Polytechnic National University,
Department of Finance
ORCID: [1] 0000-0002-2883-4563; [2] 0000-0002-5391-4194

STRUCTURAL CHANGES IN THE FINANCIAL SERVICES MARKET IN UKRAINE: IMPACT OF WAR

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The financial services industry in Ukraine experienced rapid development in the latter half of the 2010s, despite challenges such as military actions in the East and the occupation of territories by Russia in 2014–2015. The volatile environment caused market disruptions, bankruptcies, and an outflow of resources into the informal economy, but government interventions, including a banking sector cleanup, restored transparency and profitability by 2018–2019. The regulation of financial intermediaries was reformed in 2020, In particular, the powers of the National Bank were expanded. Fintech played a pivotal role, experiencing significant growth, driven by collaboration between fintech companies and banks. However, the positive trends faced a setback in 2022 due to Russia’s full-scale aggression, leading to structural changes and challenges in financial instrument usage amid infrastructure destruction and economic crises.

Purpose. The purpose of the paper is to characterize the structural changes in the financial services market caused by war and identify the main trends and mechanisms for ensuring the stability of the market under martial law in Ukraine.

Design/methodology/approach. We used the data from the financial market regulators to analyze the impact of a full-scale invasion on financial institutions’ activity and operations as well as to compare the contemporary trends in different sectors of the financial market in Ukraine.

Findings. Our research examines the financial landscape in 2022, revealing a marked decline in the presence of financial intermediaries, notably in insurance companies and credit unions. Concurrently, there has been a substantial reduction in the number of bank branches. The sharp decline in the number of financial institutions can be attributed to multiple factors, including some institutions operated in regions occupied by Russia, preventing continuity after the invasion, and others involved in high-risk activities facing NBU scrutiny revealing violations. The war intensified liquidity and solvency issues, with numerous failed institutions lacking a safety margin and unable to attract resources amid economic deterioration. Despite these structural shifts, the overall assets of financial institutions have not decreased. The analysis showed the redistribution of assets in favor of banks. The market share of financial companies and pension funds experienced a slight decrease, with insurers and credit unions facing more significant losses.

Practical implications. The high level of digitalisation of financial services in Ukraine allowed for ensuring an adequate level of access to financial services in the first months of the war when it was critical to maintaining customer confidence in the financial sector. Accordingly, further digitisation of financial transactions and improvement of regulatory approaches to the use of digital financial instruments can be seen as priority areas for the development of Ukraine’s financial sector.

Originality/value. The research is an attempt to assess the extent of the impact of critically negative external factors on the financial sector in Ukraine, in particular, to identify structural changes caused by the war. Prospects for further research are related to the study of the medium- and long-term aspects of this impact.

Key words: financial services market; financial institutions; war; crisis; digitalisation; fintech.

The problem statement

The financial services industry in Ukraine developed quite rapidly in the second half of the 2010s, despite the largely unfavourable impact of external factors. First and foremost, the military actions in the East of the country and the occupation of part of the Ukrainian territories by russia in 2014–2015 played a significantly destructive role for the entire economy and the financial sector in particular. These events caused substantial volatility in the financial and foreign exchange markets, led to several bankruptcies in the banking sector, and caused a significant outflow of financial resources into the informal economy. However, the government and the central bank managed to keep the situation under control. The banking sector was thoroughly cleaned up, and a significant number of insolvent banks, as well as banks involved in money laundering and fraud, were removed from the market. These measures increased the transparency of banking activity and allowed banks to resume profitability by 2018–2019. An important aspect of this process was the restoration of customer confidence and the gradual return of households' funds to banks. In 2020, the government reformed the regulation of financial intermediaries, bringing a significant number of them (insurance companies, financial companies, credit unions, and leasing companies) under the supervision of the National Bank of Ukraine. The second financial market regulator, the National Securities and Stock Market Commission, kept its authority to supervise the activities of investment companies and non-state pension funds.

Another important trend in the financial services market was the rapid development of fintech. The financial technology and innovative services industry has made a marked leap forward. Plenty of companies offering new services and convenient financial solutions emerge worldwide every single day. Fintech creates great opportunities for young entrepreneurs to implement their ideas. The fintech ecosystem in Ukraine has been actively developing too. In particular, 58 % of companies were formed in 2017–2020 (UAFIC, 2022). An additional impetus for the development of new financial services was provided by the coronavirus outbreak. More and more new companies keep sprouting on the market, with many going global from the beginning. Domestic fintech companies create real products that attract investors' attention and stimulate foreign investments. Such financial support allows fintech companies to impose active competition with banks, encouraging them to develop and improve their products and services. Until 2018, Ukrainian fintech startups were dominated by payment solutions, which essentially started the industry, while in 2019–2020 insurtech and regtech (technologies that help companies meet the requirements of regulators) began to develop. This process has been essentially supported by the fact that banks and fintech companies in Ukraine switched from competition to mutually beneficial cooperation: rapid development of domestic fintech is largely supported by fruitful cooperation of companies with banks.

Therefore, in the early 2020s, there were many prerequisites for further growth of financial services in Ukraine. The country had a solid internet penetration, including mobile internet. In addition, Ukrainians largely use traditional financial instruments: 89.1 million payment cards as of 01.01.2022 were issued, over 55 % of which were active and regularly used. The value of noncash transactions accounted for 60.9 % of all card transactions (in 2018 – 45.1 %, and 25 % in 2015). Thus, noncash payment card transactions were gaining popularity with the Ukrainian public. The number of contactless payment cards in 2021 reached 20 million cards, and the number of tokenized payment cards was 6.7 million (NBU, 2022). Due to the popularity of contactless and tokenized cards, only a quarter of transactions by amount and number in 2021 were made in the retail network with a physical reading of data from the card carrier. The rest – three-fourths of transactions – were contactless transactions (with a contactless card or using smartphones and other gadgets).

These positive trends in the financial services market had all the prospects for continuation, but in 2022 Ukraine faced the most serious challenge in its recent history – full-scale aggression by Russia.

Literature review

In recent years, a large number of research have been published on the peculiarities of the development of the financial services industry in emerging markets.

The research of L. Schilling and S. Seuring has shown, that mobile financial services influence the information, financial, and physical supply chain flows of micro-businesses. Moreover, their study illustrates that the generation of value is facilitated through mobile business transactions aimed at addressing the challenges arising from market dynamics, regulatory frameworks, and socio-cultural factors encountered by micro-entrepreneurs operating in emerging markets [Schilling, Seuring, 2023]. Thus, the active development of digital financial services is significantly changing the environment for small businesses and forcing them to adapt their operations to the new digital financial system.

Asymmetric information may be considered a remarkable factor that influences digital financial services development. Recent research in the field of digital financial consumer protection based on evidence from 135 countries allowed indicating that market openness and technological conditions have a positive impact on digital services users' protection, as well as create a lot of opportunities for its improvement [Dinh et al., 2023]. However, it should be noted that effective protection of the interests of users of digital financial services is impossible without achieving an adequate level of financial awareness. The study of T. Nguyen showed that there are a number of age, gender, and regional differences in readiness to use new financial technologies. An interesting finding is that the utilization of financial technology services is not influenced by one's actual financial knowledge; however, it is contingent upon their perceived financial knowledge [Nguyen, 2023]. Because of this, the popularization of digital financial services by both financial institutions and financial regulators is becoming increasingly important.

Financial technologies affect existing social mechanisms that govern the conduct of economic actors and create the need to change the role of financial institutions in the market [Tello-Gamarra et al., 2022]. Therefore, the study of the impact of financial technologies on the structure of the financial market and the behaviour of its participants is quite relevant today. And the scope of these technologies is constantly expanding and their importance is becoming increasingly significant. It is crucial to evaluate whether new technologies can accelerate the adoption of green finance and enhance FI's profitability by optimizing different functional aspects. Some studies show that there is a positive correlation between financial technology investment and green lending, which can be attributed to the enhanced efficiency of new technologies in conducting searches, due diligence, and monitoring [Mirza et al., 2023]. Thus, the role of financial technologies can be seen in the context of green finance and sustainable development goals. However, the realisation of such goals is possible in the absence of negative external factors.

The war in Ukraine has generated significant risks not only for the domestic financial market but also for global capital markets. In terms of market reaction and potential consequences, this invasion can be compared to the COVID-19 pandemic of the 2008 global financial crisis. Generally, the stock markets and commodity markets exhibit the fastest response to the Russian invasion, and the intensity of the crisis that follows is significantly lower compared to both the COVID-19 pandemic and the Global Financial Crisis [Izzeldin et al., 2023]. The global stock market indices experienced negative cumulative abnormal returns as a result of this invasion, but the effects varied across different markets. For example, in line with the anticipated economic boost from military preparedness, the markets of NATO countries demonstrated higher returns [Boubaker et al., 2022]. Simultaneously, some research has shown the trend of return on equity decline in the banking sector – about 1.5 % on the war date, the most significant drop was observed in Europe. Bank stocks experienced a greater impact from the war compared to the overall stock market. Additionally, using the net-of-market return approach, it is evident that bank stock prices decreased by an additional 1.4 % on the event day compared to the prewar market average [Boubaker et al., 2023]. An interesting aspect of the impact of the war in Ukraine on global markets was that traditional securities markets proved to be more volatile than fintech markets. In addition, the level of profitability of fintech markets was also higher [Hasan et al., 2023]. Over the past two years, a significant number of studies have been published on various aspects of the impact of the war in Ukraine on global and European financial markets [Diaconaşu et al., 2023; Taera et al., 2023; Pardal et al., 2023; Kumari et al., 2023; Chowdhury&Humaira, 2023].

Undoubtedly, the consequences for the Ukrainian financial market are much more devastating. The war and military action put the issue of economic and financial security at the forefront. Digitalisation has become an important factor in maintaining security in this difficult period. The accumulation of economic security reserves, facilitated by the extensive digitalization of the financial sector, enabled Ukraine to withstand the initial weeks of the war and maintain the functionality of the financial system [Shkolnyk et al., 2022]. Thanks to the active implementation of digital technologies in 2017–2021, financial institutions were able to provide access to financial services for their customers despite the destruction of infrastructure and other security risks.

Formulating hypotheses and setting goals

The destruction of infrastructure, economic crises, population migration, and force majeure conditions for financial intermediaries have led to significant structural changes in the use of financial instruments and settlements. Given the above, this article attempts to characterize such changes and identify the main trends and mechanisms for ensuring the stability of the financial services market under martial law in Ukraine.

Methods of the research

We used the data from the financial market regulators, in particular the National Bank of Ukraine and the National Securities and Stock Market Commission, to analyze the impact of a full-scale invasion on financial institutions' activity and operations as well as to compare the contemporary trends in different sectors of the financial market in Ukraine. To achieve these goals, we used a number of research methods. The induction method allowed us to identify general trends in financial market development based on the identified structural changes. The method of analysis and synthesis was used to assess the dynamics of changes in the number of financial institutions in Ukraine and their assets, as well as to characterise the share of assets of certain groups of financial intermediaries in total financial sector assets. In turn, we used the comparison method to compare the state of the financial sector before the full-scale aggression and after the outbreak of war.

Results

The second half of the 2010s saw several important structural changes in the financial sector. The main reason for these changes was an attempt to make the activities of financial institutions more transparent and to cleanse the market of structures associated with money laundering or shadow economic activities. In 2020, a reform was carried out in the field of regulation and supervision of financial institutions, as a result of which a significant part of them came under the supervision of the National Bank of Ukraine. The central bank pursued a rather strict regulatory policy, which resulted in a decline in the number of financial intermediaries and their units.

Table 1

Number of financial institutions in 2019–-2022

Types of institutions	2019	2020	2021	2022
Banks	75	73	71	67
Banks' branches	8002	7134	6685	5336
Insurance companies	233	210	155	128
Credit unions	337	322	278	162
Financial companies	986	1020	935	760
Pension funds	65	63	63	63

Source: National Bank of Ukraine, 2023; National Securities and Stock Market Commission.

The decline was particularly noticeable in the insurance companies and credit unions sector, the tendency to reduce their number appeared even before 2020, but it was the transition to central bank supervision that showed that a significant share of these institutions could not operate under the new rules. The war gave this trend an additional impetus. Finally, as of the end of 2022, the number of operating insurance companies fell to 128 (minus 45 % compared to 2019). The decrease in the number of credit unions was even more significant – 175 credit unions, or 52 %, ceased operations in 2019–2022. Their number decreased especially significantly during the war.

In the financial companies sector, the downward trend in the number of participants was not as marked, although a significant number of institutions also left the market. As in the case of credit unions, the outbreak of the war had a critical negative impact on the operations of financial companies – 175 were removed from the market in 2022.

Considering the reasons for the sharp decline in the number of financial institutions listed above, several aspects should be highlighted:

- some of the institutions carried out their activities in the regions occupied by russia, so after the invasion, they could not continue their work;
- some institutions were engaged in high-risk activities. After the NBU supervised these institutions and applied a risk-based approach to assessing their activities, it turned out that they were operating in violation of existing procedures. The scale of such violations made it impossible for the companies to continue operating in the market;
- The war has exacerbated the problems of liquidity and solvency of financial institutions. a significant number of failed institutions did not have a sufficient margin of safety, and, given the significant deterioration in the economy, they were unable to attract additional resources to support their operations.

The downward trend in the number of participants was also characteristic of the banking sector. Significant cleaning and rehabilitation of the banking sector in Ukraine was carried out in 2015–-2018. Therefore, during the analyzed period, the number of banks decreased insignificantly. This process was mostly associated with the withdrawal from the market of banks under russian capital's control. In particular, in 2022, the operations of four such banks were terminated. However, the number of bank branches has decreased significantly in recent years.

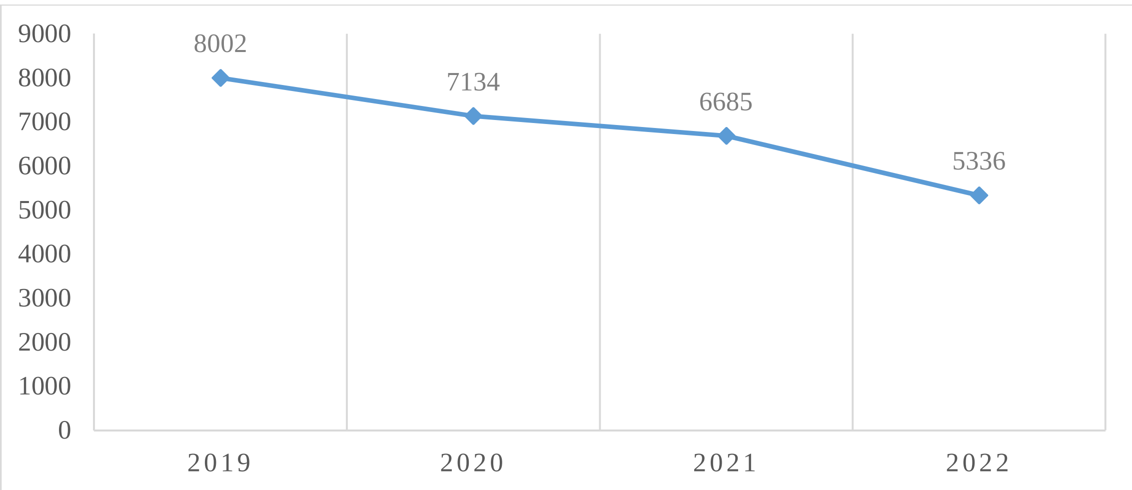

Fig. 1. Banks' branches in Ukraine (2019–2022)

Source: National Bank of Ukraine, 2023.

The tendency to reduce the number of bank branches in Ukraine has been observed for more than 10 years. However, if initially the cause of this phenomenon was an attempt to optimize the structure and costs of banks, then in 2019–2021 the processes of digitization and the transition of banks to online customer service began to play a more important role. Undoubtedly, the war had a negative impact on the banking network – more than 1,300 bank branches ceased operations in 2022. Mainly we are talking about branches that previously worked in the territories occupied by Russia, or about those institutions that were destroyed as a result of hostilities. On the other hand, the war once again exacerbated the issue of cost optimization for banks, so individual institutions are rebuilding their networks even under such conditions. Banks that have the opportunity to invest financial resources in digital services are reorienting their activities from physical presence to online interaction with clients.

Given the significant structural changes in the financial sector, it is worth analysing how these changes have affected the assets of financial institutions (Table 2).

Table 2

Assets of financial institutions in 2019–2022, mln UAH

Types of institutions	Year			
	2019	2020	2021	2022
Banks	1493298	1822841	2053232	2353592
Insurance companies	63866	69920	64209	70869
Credit unions	2502	2317	2279	1288
Financial companies	162197	182130	198689	243456
Pension funds	3143	3564	3875	4025
Total	1725006	2080772	2322284	2673230

Source: National Bank of Ukraine, 2023b; National Securities and Stock Market Commission.

It should be noted that the reduction in the number of market participants did not lead to a reduction in their assets. During the analysed period, only the assets of credit unions decreased significantly, with the outbreak of hostilities having the greatest impact on this process. The reduction in the number of institutions in the insurance and financial companies sectors did not have a negative impact on the volume of assets – its growth trends continued in 2022. Similar trends were observed for pension funds and banks – despite the significant deterioration in the economy and security risks, they managed to increase their assets. Thus, it can be stated that financial institutions managed to prevent the outflow of resources after the outbreak of the war. In addition, the unstable year of 2022 led to the consolidation of the financial sector, which can be seen as a negative process from the perspective of competition. On the other hand, in terms of the reliability and transparency of financial institutions, this phenomenon has had a positive effect.

Banks have traditionally played a crucial role in the financial services market in Ukraine. In 2019, their share in total financial sector assets exceeded 86 %, while financial companies held 9.4 % of assets and insurance companies 3.7 %. The share of other financial intermediaries was insignificant (Fig. 2).

There were no significant changes in market share in the following years. The outbreak of full-scale aggression and military operations on the territory of Ukraine generated a serious shock for the financial sector and clients of financial institutions. But at the same time, these events only slightly affected the distribution of assets among financial intermediaries (Fig. 3).

The war led to a redistribution of assets in favour of banks – compared to 2019, in 2022 their share increased by about 1.5 % and exceeded 88 %. The market share of financial companies and pension funds decreased slightly. More significant losses were for insurance companies and credit unions.

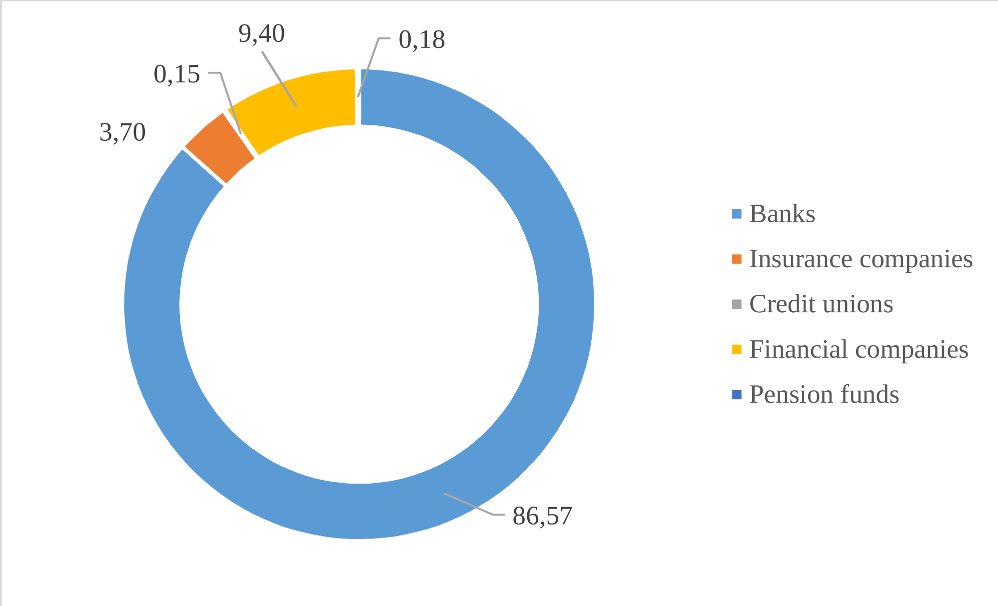

Fig. 2. Market share of financial institutions as of 01.01.2020, % of total assets

Source: own calculations based on the data of the National Bank of Ukraine.

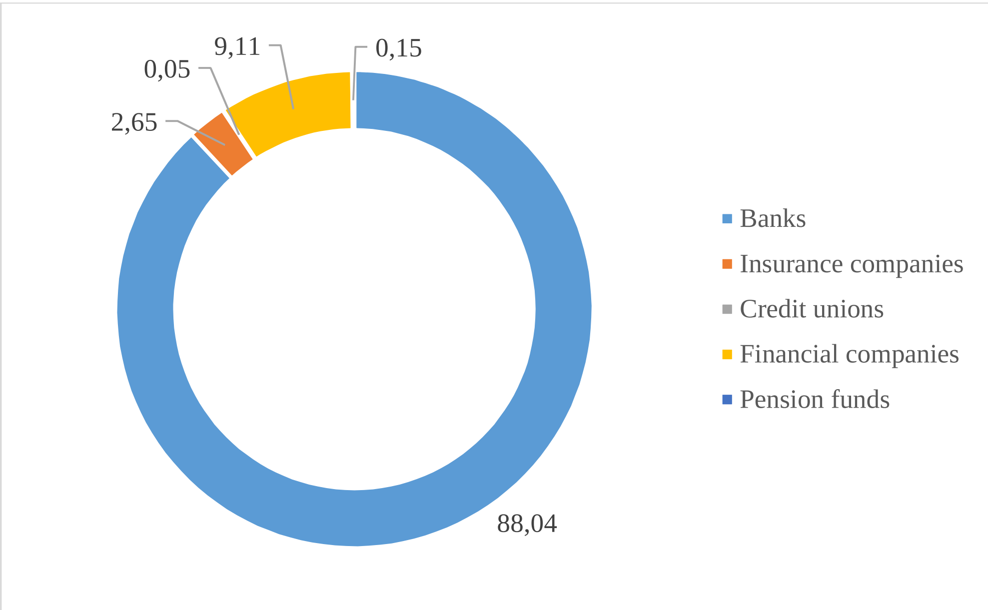

Fig. 3. Market share of financial institutions as of 01.01.2023, % of total assets

Source: own calculations based on the data of the National Bank of Ukraine.

Thus, banks managed to strengthen their market positions during the war. The high level of liquidity in the banking sector played an important role in this, maintaining depositors' confidence in banks. Another important factor was the continuity of payments and the operation of the branches. Banks have been able to preserve capital reserves, but it can be predicted that this excess buffer will gradually disappear. In the current environment, the NBU is applying a regime of regulatory relaxation. This allows banks that have viable business models and are able to generate operating income will have enough time to restore capital if necessary (NBU, 2022). As such, the role of banks in the financial services market in Ukraine may well be expected to further increase in the future.

The development of financial technologies and support for fintech companies became important priorities of economic policy in the pre-war years in Ukraine. In particular, one of the three strategic directions of the Strategy of the National Bank of Ukraine 2025 is the buildout of digital finance as a driver for digitalizing the economy [NBU, 2023]. According to the Strategy, the NBU is working to create a full-fledged fintech ecosystem in Ukraine and has focused its efforts on strengthening financial inclusion and further digitalizing financial services. Certainly, the war left its mark on the implementation of these plans, but it did not stop the development of digital technologies in the financial services sector. Moreover, the difficulties in using traditional financial instruments caused by the war have become an additional impetus for the development of fintech start-ups, which have focused their efforts on finding alternative payment technologies, customer verification solutions, etc.

246 fintech companies operated in Ukraine in 2022 with a total market value of approximately 1 billion US dollars, about 33 % of them expanding their operations to international markets (UAFIC, 2022). The number of market participants has increased compared to the pre-war period – 203 companies operated on the market in 2021. Simultaneously, there have been certain changes in the areas of activity of fintech companies (Fig. 4).

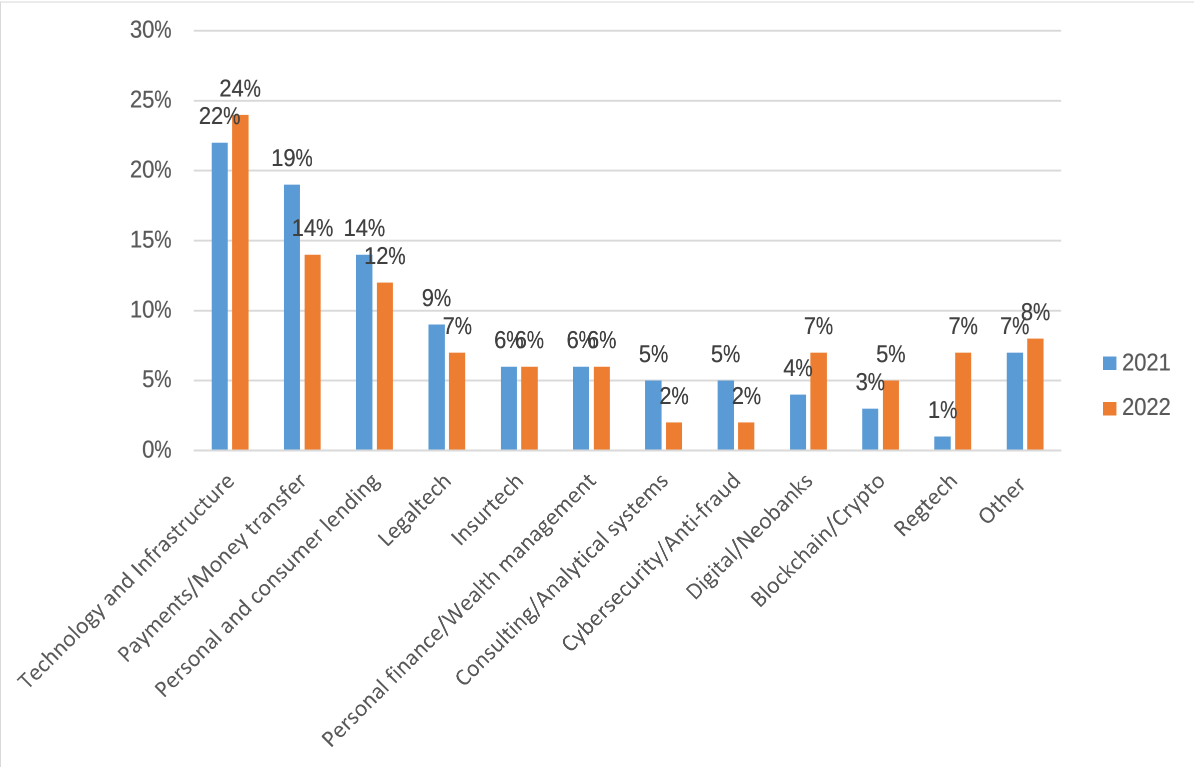

Fig. 4. Fintech companies' area of activity in 2021–2022

Source: UAFIC, 2021, 2022.

The primary focus of Ukrainian startups has revolved around the development of technological infrastructure, specifically with regard to the creation of information technology solutions for financial institutions and banks. These service providers constitute 24 % of the surveyed companies, a modest increase from the 22 % observed in 2021. Consequently, 23 % of the enterprises established between 2020 and 2021 self-identify as part of the Technology and Infrastructure industry (UAFIC, 2022). The rise in prominence of this sector may be attributed, in part, to the ongoing effects of the pandemic, which have compelled businesses to transition to online platforms, thereby generating demand for product-oriented companies capable of facilitating seamless digital operations.

The payment services and money transfer sector continues to hold its position as the second leading segment, constituting 14 % of the market. This can be attributed to the increasing preference for cashless transactions among individuals. As per the statistics provided by the National Bank of Ukraine, cashless payments now account for 90 % of all transactions, indicating a growing reliance on non-cash methods. Given these trends, it is anticipated that this sector will maintain its prominent status in the foreseeable future. Of course, the realism of this forecast depends on external factors, in particular, the development of the situation at the frontline.

Furthermore, consumer lending companies have witnessed a substantial increase in market share, rising from a mere 7% in 2020 to 14% in 2021, and slightly declining to 12% in wartime. This growth can be attributed to the promptness of online loan processing, the convenience of obtaining loans 24/7, and the relaxed credit scoring requirements compared to traditional banks. The popularity of fast loans among individuals has fueled the demand and subsequently led to an expansion of the lending industry. Consequently, competition among companies operating in this segment has intensified as they strive to meet the growing consumer demand.

Another significant trend in the fintech sector in Ukraine is the active development of neobanks. They offer more and more services and products to their customers. Before the war, 7 neobanks were operating in the market. The barrier to entry into the market for such institutions is substantial, necessitating the consideration of collaboration with an established bank or a financial, commercial, or industrial group as a means to mitigate costs. If the situation in the country and the economy, in particular, develops favourably, new neobanks associated with banks, large holding companies, or financial companies can be expected to emerge. Consequently, such a development could yield a broader spectrum of financial services available to clients at reduced costs, while simultaneously intensifying competition among market participants. Full-scale military operations and the resulting economic instability have to be considered as deterrent factors, as under such conditions a significant number of potential investors will be willing to invest in new projects.

Conclusions

The financial services market in Ukraine showed positive growth trends in the pre-war period. The groundwork for this expansion was established during the latter half of the 2010s, encompassing significant initiatives such as the restructuring of the banking sector and enhanced transparency in its practices, reforms in financial regulations, and the implementation of policies aimed at fostering the advancement of digital technologies. The destruction of infrastructure and financial instability caused by the war had a significant negative impact on the financial sector and led to the need for financial institutions to adapt their operations to the new conditions. Our analysis has shown a significant reduction in the number of financial intermediaries in 2022, primarily insurance companies and credit unions, the number of bank branches has decreased substantially too. At the same time, such structural changes did not lead to a decrease in the assets of financial institutions – assets increased in all sectors except credit unions in 2022. The war caused a redistribution of assets in favour of banks, the market share of financial companies and pension funds decreased slightly, while insurers and credit unions lost much more. These trends may become a prerequisite for the growth of bank-centricity in Ukraine's financial sector. On the one hand, this will facilitate better risk control by the regulator, given the reduced number of financial institutions, and a wider spread of proven supervisory practices in the banking sector to non-banks. On the other hand, the concentration of a growing share of assets by banks can be seen as a factor that hinders competition and the development of the financial services market as a whole. Therefore, the policy of market regulators should be balanced and create conditions for the equal development of different groups of financial intermediaries.

Financial technologies were one of the main drivers of the development of the financial services market in Ukraine in the pre-war period. The high level of digitalisation of financial services allowed to ensure an adequate level of access to financial services in the first months of the war when it was critical to maintaining customer confidence in the financial sector. In the context of enhancing Ukraine's financial sector, priority areas for development include the continued digitization of financial transactions and the refinement of regulatory frameworks governing the utilization of digital financial instruments. Fintech start-ups operating in Ukraine are mainly active in the areas of technologies and infrastructure, payments and money transfers, and personal and consumer lending. In addition to economic destruction and instability, the war creates preconditions for finding new solutions in the field of financial technologies. Therefore, under a favourable scenario, there is every reason to expect further development of the fintech sector in Ukraine in the areas of payment technologies, cybersecurity, countering terrorist financing, etc. Undoubtedly, this development is heavily influenced by external factors, primarily military and political. The ongoing full-scale military operations in the country and high security risks have effectively halted the inflow of foreign investment in the fintech sector. The growing shortage of financial resources within the country also makes it difficult to find sources to finance the development of fintech startups. This situation stimulates a certain "migration" of startups and their founders, who are increasingly orienting their products towards foreign markets. Therefore, the growth of the attractiveness of the domestic financial services market, the creation of transparent rules of the game in it, combined with the improvement of the security situation, in our opinion, will be crucial factors for the further development of the fintech sector in the financial market of Ukraine.

Prospects for further research

Structural changes in Ukraine's financial sector are continuing, with the adverse impact of external factors not yet diminishing. As a result, the issues of further adaptation of financial institutions to the challenging operating environment will remain in focus until the end of the war and for some time afterwards. Therefore, the scope for further research on the development of the financial services market in Ukraine is quite broad and includes the introduction of new financial instruments, further digitalisation of interaction between financial institutions and clients, countering money laundering and terrorist financing, and arms proliferation, etc.

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В. В. Рисін, Р. О. Печенко
Національний університет “Львівська політехніка”,
кафедра фінансів,
vitalii.v.rysin@lpnu.ua,
ruslan.o.pechenko@lpnu.ua

СТРУКТУРНІ ЗМІНИ НА РИНКУ ФІНАНСОВИХ ПОСЛУГ УКРАЇНИ: ВПЛИВ ВІЙНИ

Мета статті – охарактеризувати структурні зміни на ринку фінансових послуг, спричинені війною, та визначити механізми забезпечення стабільності ринку в умовах воєнного стану в Україні. Наслідком повномасштабної агресії стало помітне зменшення кількості фінансових посередників, зокрема страхових компаній та кредитних спілок, та кількості банківських відділень. Війна загострила проблеми з ліквідністю та платоспроможністю, що зумовило перерозподіл активів на користь банків. Високий рівень цифровізації фінансових послуг в Україні дав змогу забезпечити належний рівень доступу клієнтів до таких послуг і підтримати довіру. Застосування цифрових фінансових інструментів та вдосконалення їх регулювання розглянуто як пріоритетні напрями розвитку фінансового сектору України.

Ключові слова: ринок фінансових послуг; фінансові установи; війна; криза; діджиталізація; фінтех.