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Potential of the sector of financial services in view of the socio-economic growth of Ukrainian regions

Abstract

Nowadays, in the global economy, the sector of financial services is an important mechanism to secure competitiveness. In the first place, it performs the functions of monetary provisions; in the second place, it mobilizes and transforms spare savings into investment resources for extended economic reproduction. Yet, the socio-economic and geopolitical instability in Ukraine has caused a decline in the development of its financial sector, which is confirmed by the rating downgrade of Ukraine in a range of international economic rankings. The purpose of the paper is to provide a complex research of the capacity of the sector of financial services in securing the socio-economic growth of Ukrainian regions. In order to achieve the goal, general and specific research methods were used, including structural and functional, regression-based, factor and system analysis methods of comparison and synthesis. MS Excel was used to visualize and interpret data. The efficiency of the use of the capacity of the sector of financial services in securing the socio-economic growth of regions is evaluated based on the calculation of the related index as an arithmetic average of standardized output parameters that characterize the development of the sector of financial services and socio-economic development of regions.

The research has contributed to 1) establishing a high variability of the index of the efficiency of the capacity of the sector of financial services caused by the unequal spatial distribution of the companies in the analyzed sector; 2) verifying a high sensitivity of the sector of financial services to macroeconomic imbalances, fluctuations on global financial and monetary markets, and domestic political crises confirmed by a slight impact of the sector capacity on the pace of gross regional product (GRP) change in Ukrainian regions and the gross valued added (GVA) change in the services sector of the regions; 3) stating a direct correlation between the volume of services provided by financial sector companies and financial solvency of consumers (i.e. residents and businesses), and a direct correlation between the intensity of change in the capacity of the sector of financial services in order to secure the socio-economic growth of regions and employment change in the regions. The fact that a high level of shadow activity is an essential threat

to the efficient use of the capacity of the sector of financial services in order to secure the socio-economic growth of Ukrainian regions is emphasized. Unequal spatial distribution of companies within the sector of financial services, imbalance in spatial development of adjoining economy sectors, and credit activity of businesses and population have caused a high variability of the index of the efficiency of the use of the capacity of the sector of financial services in terms of the socio-economic growth in Ukrainian regions. The financial sector of Ukraine is characterized by high sensitivity to fluctuations on domestic and foreign financial and exchange markets that are especially relevant nowadays in view of the coronavirus pandemic. Therefore, forming a comprehensive roadmap activating the mechanisms to improve economic activities in the financial and adjoining markets should be the primary task for public and regional authorities.

Keywords: Sector of Financial Services; Financial and Insurance Activities; Socio-Economic Development of Regions; Shadow Economy; Regional Economy

JEL Classification: D53; G21; R11

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у забезпеченні соціально-економічного зростання регіонів України

Анотація. У статті запропоновано методичний підхід до оцінки ефективності використання потенціалу сектору фінансових послуг у забезпеченні соціально-економічного зростання регіону. Для цього запропоновано розрахувати відповідний індекс як середньоарифметичне значення нормованих вихідних параметрів, що характеризують розвиток сектору фінансових послуг та соціально-економічний розвиток регіону.

Апробація авторського методичного підходу дозволила встановити: 1) високу варіативність індексу ефективності використання потенціалу сектору фінансових послуг у забезпеченні соціально-економічного зростання регіонів, зумовлену нерівномірністю просторового розподілу підприємств аналізованого сектору; 2) незначний вплив потенціалу сектору фінансових послуг на темпи зміни обсягу ВРП регіонів України та темпи зміни обсягу ВДВ сектору послуг регіонів, що зумовлено високою чутливістю зазначеної діяльності до макроекономічних дисбалансів, коливань на світових фінансових та валютних ринках, внутрішніх політичних криз тощо; 3) вищий обсяг реалізованих послуг підприємствами досліджуваного сектору в регіонах із вищим платоспроможним попитом отримувачів фінансових послуг; 4) пряму кореляцію між інтенсивністю зміни потенціалу сектору фінансових послуг у забезпеченні соціально-економічного зростання регіонів та темпами зміни зайнятості в регіонах. Встановлено, що вагомою загрозою ефективному використанню потенціалу сектору фінансових послуг у забезпеченні соціально-економічного зростання регіонів України є висока тінізація зазначеної діяльності.

Ключові слова: сектор фінансових послуг; фінансова та страхова діяльність; соціально-економічний розвиток регіонів; тінізація економіки; регіональна економіка.

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Потенциал сектора финансовых услуг в обеспечении социально-экономического роста регионов Украины

Аннотация. В статье предложен методический подход к оценке эффективности использования потенциала сектора финансовых услуг в обеспечении социально-экономического роста региона. Для этого предложено рассчитать соответствующий индекс как среднеарифметическое значение нормированных выходных параметров, характеризующих развитие сектора финансовых услуг и социально-экономическое развитие региона.

Апробация авторского методического подхода позволила установить: 1) высокую вариативность индекса эффективности использования потенциала сектора финансовых услуг в обеспечении социально-экономического роста региона, обусловленную неравномерностью пространственного распределения предприятий рассматриваемого сектора; 2) незначительное влияние потенциала сектора финансовых услуг на темпы изменения объема ВРП регионов Украины и темпы изменения объема ВДВ сектора услуг регионов, что обусловлено высокой чувствительностью указанной деятельности к макроэкономическим дисбалансам, колебаниям на мировых финансовых и валютных рынках, внутренним политическим кризисам и тому подобному; 3) высокий объем реализованных услуг предприятиями исследуемого сектора в регионах с высоким платежеспособным спросом получателей финансовых услуг; 4) прямую корреляцию между интенсивностью изменения потенциала сектора финансовых услуг в обеспечении социально-экономического роста регионов и темпами изменения занятости в регионах. Установлено, что весомой угрозой эффективному использованию потенциала сектора финансовых услуг в обеспечении социально-экономического роста регионов Украины является высокая теннизация указанной деятельности.

Ключевые слова: сектор финансовых услуг; финансовая и страховая деятельность; социально-экономическое развитие регионов; теннизация экономики; региональная экономика.

1. Introduction

The sector of financial services is an important mechanism to secure competitiveness in the global economy, which performs the monetary provisions, as well as mobilizes and transforms spare savings into investment resources for extended economic reproduction.

Yet, unstable socio-economic and geopolitical factors, the fragmentary nature of ongoing reforms and the poor institutional framework of the sector of financial services in Ukraine reinforced by macroeconomic imbalances of the global economy have caused a decline in the development of the sector under research. According to the annual report of the Global Competitiveness Forum, the main regress of the country in the Global Competitiveness Index rankings in 2019 was recorded by the Financial System Pillar - 136th position out of 141 countries (The Global Competitiveness Report, 2019), a downgrade of 19 positions compared to 2018 (The Global Competitiveness Report, 2018).

Maintaining the consistent functioning of the sector of financial services requires the detection and research of its development problems, as well as timely decision-making on their elimination. Together they secure the efficiency of the use of its capacity to provide the socio-economic growth of regions and the country in general.

2. Brief Literature Review

There is no unified vision of the cause-effect relationships in the development of the sector of financial services and socio-economic growth of regions or a country in general. In particular, J. Schumpeter researched the issue back in the early 20th century, proving the role of the bank system in securing the growth of national income through efficient investment (Furqani & Mulyany, 2009).

Thiel (2001), Wachtel (2001), and Levine (1997) examined the impact of financial development on economic growth and concluded that the role played by the sector of financial services is to redistribute resources in favour of modern growing sectors that would secure the development of a country's economy. Meanwhile, R. Masih and A. M. M. Masih (1996), Robinson (1979), etc. argue that economic growth causes the development of the sector of financial services in the case of national income growth because the industrial enterprises' demand for foreign (credit) resources tends to grow.

The research by Zveryakov and Zherdetskaya (2017) emphasizes the inability of the modern domestic banking system to make a positive contribution to sustainable economic growth. Moreover, the scientists argue that the consistency of the banking system depends on the macroeconomic situation; institutional factors have an essential impact on economic growth in Ukraine (compliance with laws, level of political freedom, corruption, easiness of doing business, etc.).

However, some researchers, including Odedokun (1992) and Luintel & Khan (1992), establish that a distinct cause-effect relationship between the development of the sector of financial services and the socio-economic growth of a region or a country is impossible to be detected because the financial sector boosts the economic development, while the economic growth leads to further economic development.

The modern empirical research of the relationship between the development of the sector of financial services and the socio-economic growth in Ukraine is carried out mostly on the macroeconomic level (i.e. the level of the country) or is related to the analysis of the impact of certain components of the financial services market on the development of the country's regions. Thus, in the work by Zveryakov et al. (2019), the basic forms of interaction of banks and FinTech companies are considered to be the basic models of participation of banks in creation of FinTech companies. Leshchukh (2015) examines the development priorities of regional banks in Western Ukraine in the «metropolis - periphery» system and the priorities and tools of the development of the financial and investment infrastructure of the realization of the metropolis capacity in regional metropolises, based on the example of the Western region of Ukraine (Leshchukh, 2015). The research conducted by Melnyk (2019) dwells on the analysis of problems and strategic priorities of forming the business spatial organization policy in the financial sector at the meso level.

3. Purpose

The purpose of the paper is to comprehensively research the capacity of the sector of financial services in securing the socio-economic growth of Ukrainian regions, which is getting more relevant due to the unequal development of the county's regions.

4. Methodology

The fundamental provisions and principles of the regional development theory, economic convergence, and integration are the methodological basis of the research. The research uses the structural and functional, regression-based, factor, and system analyses, as well as comparison and synthesis, and graphical methods.

The efficiency of the use of the capacity of the sector of financial services to secure the socio-economic growth in a region is analyzed based on the calculation of the related index as an arithmetic average of the standardized output parameters that characterize the development of the sector of financial services and the socio-economic development of the region. They include the level of shadow activity in the financial and insurance sector (excluding the banks activity), the share of financial and insurance activity sector in the GVA of the regions, the share of financial and insurance sector in the GVA of the services sector in the regions in general, the share of entities of the Unified State Register of Companies and Organizations of Ukraine that operate in the sector of financial services, the share of companies operating in the financial and insurance sector; the share of services provided in the financial and insurance sector; the financial result (balance) before taxation, profitability of operating activity of the companies in the financial and insurance sector, the share of those who are employed in the financial and insurance sector, labour productivity of those employed in the financial and insurance sector; the share of capital investment in the sector of financial and insurance activity, the share of import of services related to financial and insurance activity, the share of credits granted by deposit corporations (excluding the National Bank of Ukraine).

Taking into account the fact that the abovementioned parameters are both the stimulators and the destimulators of socio-economic development, they are preliminary standardized by the following formulas:

$$N_i = \frac{Z_i - Z_{min}}{Z_{max} - Z_{min}} - \text{for stimulators,} \quad (1)$$

$$N_i = \frac{Z_{max} - Z_i}{Z_{max} - Z_{min}} - \text{for destimulators,} \quad (2)$$

where:

N_i - the standardized value of the i -th parameter in the region;

Z_i - the value of the i -th parameter in the region;

Z_{max} - the maximum value of the i -th parameter in the region;

Z_{min} - the minimum value of the i -th parameter in the region.

The index of the efficiency of the capacity of the sector of financial services used to secure the socio-economic growth in the region is calculated as an arithmetic average of the standardized output parameters. The range of the index values is within [0: 1]: the higher its value is, the higher the efficiency of the use of the capacity of the sector of financial services to secure the socio-economic growth of the region is observed, and vice versa.

5. Results

Table 1 shows the results of calculations basing on the methodology explained above.

Unequal spatial distribution of companies operating in the sector of financial services (their highest concentration is observed in Kyiv, Dnipropetrovsk and Kharkiv regions) has caused a substantial variation of the index of efficiency of the use of the capacity of the sector of financial services to secure the socio-economic growth of Ukrainian regions. Thus, Kyiv, with its Index value of 0.876 points in 2018, was a clear frontrunner among the regions of the country by the parameter in the period under research. That year the capital got the highest values by 11 out of 14 output parameters. Moreover, Zaporizhzhia region, the closest competitor, got 0.305 points (-0.571 points compared to Kyiv).

Kyiv as a powerful centre of capital and business activity, where 57.8% of the companies operating in the sector of financial services of the country in 2018, has the highest level of shadow activity in the sector - 43.1% of the GVA in the sector of financial services of the region (calculated by authors based on analytical materials of the Ministry of Economy of Ukraine (2009)).

In general, the shadow economy substantially impacts both the economic activity and social processes taking place in society and becomes a global problem of modern times. In Ukraine, the slow pace and inconsistency of economic transformations, as well as numerous political crises, have played the main role in the expansion of the shadow economy. Therefore, nowadays, it is rather the consequence of the legal economy's deformation than its cause.

Table 1:

The index of the efficiency of the use of the capacity of the sector of financial services to secure the socio-economic growth of the regions, 2013 and 2018

Regions	Result, points			Position in the ranking		
	2013	2018	changing	2013	2018	dynamic
Vinnitsia	0.128	0.124	↓ 0.00	16	23	↓ -7
Volyn	0.135	0.100	↓ -0.03	14	25	↓ -11
Dnipropetrovsk	0.337	0.274	↓ -0.06	2	3	↓ -1
Donetsk	0.169	0.134	↓ -0.03	8	22	↓ -14
Zhytomyr	0.096	0.191	↑ 0.10	24	8	↑ 16
Zakarpattia	0.119	0.177	↑ 0.06	20	12	↑ 8
Zaporizhzhia	0.166	0.305	↑ 0.14	10	2	↑ 8
Ivano-Frankivsk	0.131	0.226	↑ 0.09	15	4	↑ 11
Kyiv	0.166	0.182	↑ 0.02	9	11	↓ -2
Kirovohrad	0.111	0.121	↑ 0.01	21	24	↓ -3
Luhansk	0.194	0.136	↓ -0.06	6	21	↓ -15
Lviv	0.165	0.196	↑ 0.03	11	7	↑ 4
Mykolayiv	0.092	0.164	↑ 0.07	25	14	↑ 11
Odesa	0.196	0.174	↓ -0.02	5	13	↓ -8
Poltava	0.261	0.157	↓ -0.10	3	15	↓ -12
Rivne	0.123	0.140	↑ 0.02	17	20	↓ -3
Sumy	0.101	0.142	↑ 0.04	23	18	↑ 5
Ternopil	0.122	0.191	↑ 0.07	18	9	↑ 9
Kharkiv	0.249	0.199	↓ -0.05	4	6	↓ -2
Kherson	0.107	0.216	↑ 0.11	22	5	↑ 17
Khmelnitsky	0.145	0.146	↑ 0.00	13	17	↓ -4
Cherkasy	0.175	0.188	↑ 0.01	7	10	↓ -3
Chernivtsi	0.122	0.140	↑ 0.02	19	19	— 0
Chernihiv	0.147	0.146	↓ 0.00	12	16	↓ -4
Kyiv city	0.814	0.876	↑ 0.06	1	1	— 0

Source: Calculated by the authors based on the above-mentioned methodology using the data provided by State Statistics Service of Ukraine (2020) and National Bank of Ukraine (2020)

High shadow activity in the sector of financial services is the biggest threat to the efficient use of its capacity to secure the socio-economic growth of Ukrainian regions. The conducted research shows that the correlation between the mentioned parameters amounts to -44.2% (Figure 1). Moreover, one can hypothesize that the dependence is much higher because the methodological approach applied to determine the level of the shadow economy, calculated by authors based on analytical materials by the Ministry of Economy of Ukraine (2009), takes into account only the parameters of companies' activities. Meanwhile, the share of individual entrepreneurs in the total number of economic entities operating in the sector of financial services in 2013 amounted to 54%, whereas it grew to 57.5% in 2018.

Figure 1 shows that the high intensity of the change in the level of shadow activity in the sector of financial services in Volyn and Luhansk regions in 2018, compared to 2013, caused the extremely low intensity of the change in capacity of the sector used to secure the socio-economic growth of the mentioned regions - 74.5% and 70.2%, respectively. Meanwhile, the volume of shadow profit of companies operating in the sector of financial services (per company) in the mentioned regions grew 3.5 and over 5 times respectively in the reporting period, compared to the base period (calculated by the authors based on analytical materials provided by the Ministry of Economy of Ukraine (2009)).

In 2014-2016, Ukraine faced a «triple» crisis - the crisis phenomena in the real economy sector were aggravated by the bank and currency crises. Macroeconomic imbalances accumulated in the previous years, the political crisis of early 2014, the occupation of the Crimea and of several districts in Donetsk and Luhansk regions, and the upsurge of shadow economy in general caused a decline in the number of companies in the sector of financial services by 18.8% in 2018 against 2013 (excluding banking activity), and a substantial decline in the number of operating banks - from 176 units in 2013 down to 75 units in 2019. Moreover, while in early 2012 the banking system of Ukraine accounted for 20.3 thousand operating subdivisions, in early 2020 their number fell by over 2.5 times - down to 8 thousand (Finance and Investment Portal «Minfin», 2020). Furthermore, the spatial distribution of banks' subdivisions through the country is unequal. Indeed, 44.3% of banks' subdivisions that currently operate in Ukraine are located in five regions - Dnipropetrovsk, Odesa, Kharkiv, and Lviv regions and the City of Kyiv.

Another consequence was a decline in the employment rate in the sector of financial services. The rate for the country was -104.1 thousand people in 2018, compared to the 2013 rate. In general, 1.3% of the total number of those who were employed in the economy of Ukraine engaged in the sector under research in 2018, which is 0.3% less than in 2013. Also, we observed

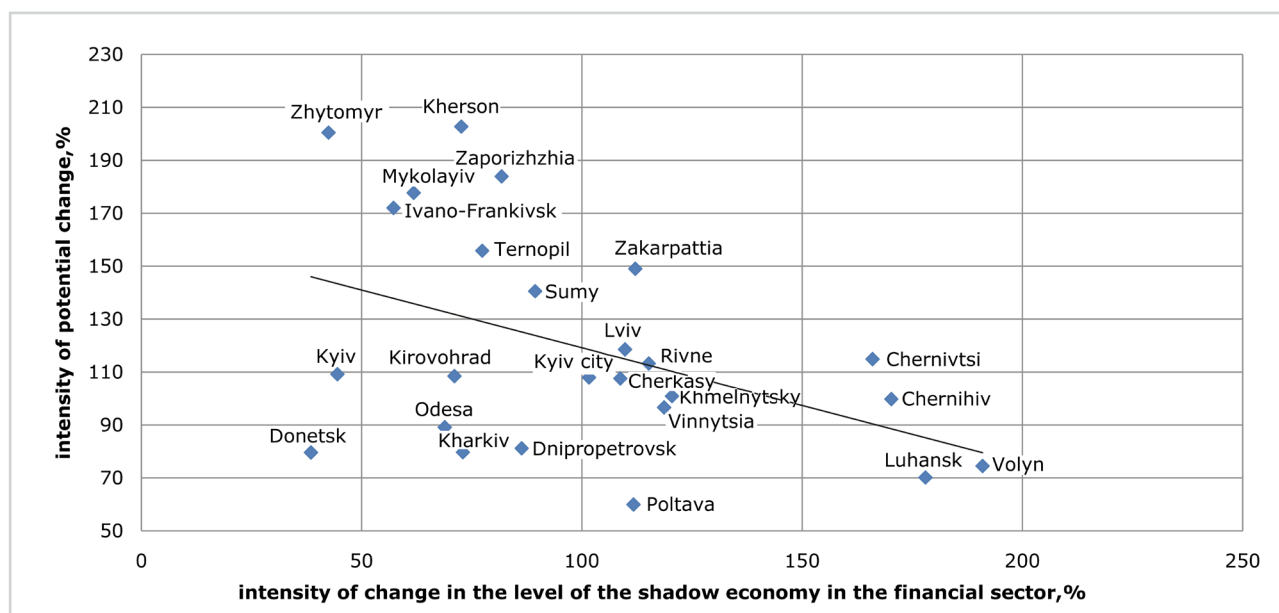


Figure 1:
The dependence between the intensity of the change in the level of shadow activity in the sector of financial services and the intensity of the change in its capacity used to secure the socio-economic growth of Ukrainian regions, 2018 to 2013

Source: Compiled by the authors

a decline in the share of import and export of services related to the financial and insurance activity.

In late 2019 - early 2020, the world encountered an outbreak of the coronavirus pandemic, which caused new fluctuations in the financial sector of Ukraine. Aggravated by previously unsolved domestic problems in the country, it has led to an increase in the negative expectations of the companies in the sector of financial services regarding their activity dynamics in the nearest future. A survey of the companies in the sector under research conducted by the State Statistical Service of Ukraine (State Statistics Service of Ukraine, 2020) in the first quarter of 2020 shows the following.

44% of the respondents emphasized the deteriorating business situation in the sector of financial services in late 2019 - early 2020, which was caused, in the first place, by the falling demand for financial and insurance services; almost a third part of the surveyed persons expected a further decline in the demand for services in II-III quarters of 2020 and a slight increase in prices.

One third of the respondents expected a decline in operating income and a slight growth in operating expenditures of the companies in the sector of financial services in the second and third quarters of 2020. 40% of the surveyed persons indicated a possible fall in profitability. 44% of the respondents expected a decline in profitability in the banking sector.

Further growth in prices for financial services and a decline in the profitability of companies in the domain under research are expected in the first quarter of 2021 as well (State Statistics Service of Ukraine, 2020).

Therefore, a slight decrease in the development of the sector of financial services caused a minor impact on its capacity regarding the change in the volume of both GRP and GVA in Ukrainian regions, as well as a range of other socio-economic parameters (Table 2).

The pace of change in the share of GVA within the sector of financial services in the whole country in 2018 was 80% of 2013.

The companies operating the sector of financial services accounted for 14.5% of the total volume of services provided by the companies in the services sector of Ukraine in 2018. In monetary terms, it amounted to USD 7 billion (-USD 4.3 billion compared to 2013). In 2019, the companies in the sector under research provided services in the amount of USD 11.7 billion.

Across the regions, the share of services provided by financial companies in the total amount of services provided by companies in the services sector was characterized by considerable variability - from 1.5% in Rivno region up to 55.3% - in the City of Kyiv.

The pace of change in the total number of economic entities in the region ($R^2 = 0.76$) and the pace of change in the households' disposable income per capita ($R^2 = 0.75$) have substantially influenced the pace of change in the volume of services provided by companies operating in the sector of financial services. Therefore, a higher volume of services provided by the companies operating in the sector of financial services is observed in the regions with higher effective demand of population and businesses (in fact, they are the recipients of financial services).

The companies operating in the sector of financial services paid UAH 39.1 billion to the budget in 2019, which accounted for 4.4% of the total volume of tax revenues. In 2018, the rate was UAH 20.4 billion (Table 3).

A range of companies in the sector of financial services entered the Top 100 of the largest companies in Ukraine by the amount of taxes paid in 2019. The list includes JSC CB «Privatbank» (4th position), JSC «Raiffeisen Bank Aval» (33rd position), JSC «State Savings Bank of Ukraine» (37th position), JSC «State Export-Import Bank of Ukraine» (39th position), JSC «Alfa-Bank

Table 2:
Impact of the intensity of the change in the capacity of the sector of financial services on major parameters of socio-economic development of Ukrainian regions, 2018 against 2013

	Parameters of socio-economic development of Ukrainian regions	Equation	Coefficient of correlation
Intensity of change in the capacity of the sector of financial services	GRP change pace	$y=0.286x+221.41$	0.358
	GVA change pace in the services sector	$y=0.286x+152.96$	0.308
	Capital investment change pace	$y=0.709x+161.64$	0.379
	Credit activity change pace	$y=0.415x+82.19$	0.489
	Employment change pace	$y=0.144x+71.26$	0.354

Source: Calculated by the authors

Ukraine» (55th position), JSC «Ukrsibbank» (71st position), etc. (Rankings, Business in Official Numbers, 2019).

Personal income tax (PIT) and military levy prevail in the structure of tax payments in the sector of financial services. Their share amounted to 38.1% of taxes and fees paid in 2019. The rate was 24.8% less, compared to 2018. Moreover, 75 bank institutions in Ukraine paid PIT from the interest accrued on the deposits in the amount of USD 1.25 billion in the 9 months of 2018. JSC CB «Privatbank», JSC «State Savings Bank of Ukraine», JSC «Alfa-Bank Ukraine» were the leaders by the amount of their payments.

Despite the 2013-2019 capital investment growth in the economy of Ukrainian regions (excluding Donetsk and Luhansk regions), the share of funds accounting for the sector of financial services was very low (2.7% in 2013 and 1.8% in 2019). In January-September 2020, the rate was 2.6%. The largest amount of capital investment was attracted by the companies in the sector of financial services in the City of Kyiv, as well as Lviv and Odesa regions. Meanwhile, the funds of the public budget were not among the sources of funding the capital investment. Moreover, the negative business expectations in the sector of financial services testify to the possibility of further decline in the volume of capital expenditures of the companies in the sector under research in the I-II quarters of 2021.

The growing credit-deposit activity of the population and businesses is both an important precondition of the accelerated pace of economic growth in Ukrainian regions and a testimony of consistent development of the country's financial-credit system.

The authors' research shows the direct dependence between the intensity of the change in the capacity of the sector of financial services of the country's regions and credit activity of these regions' economies ($R^2 = 0.489$).

The credit activity of banks and non-bank institutions in terms of granting loans to the population and businesses started to gradually recover in 2018-2019 after the financial-economic crisis of 2014-2016.

The credits to businesses prevail in the structure of credits granted to the deposit corporations (excluding the National Bank of Ukraine) in the period under research. Their share in the total volume of granted credits as of late 2018 amounted to 82.1% (including those in foreign currency - 50.1%), as of late 2019 - 79.5% (including those in national currency - 46.4%) (National Bank of Ukraine, 2019). A substantial share of funds was granted by the deposit corporations of Kyiv and Dnipropetrovsk region, which is understandable considering, on the one hand, the concentration of a small number of companies of the sector of financial services, and, on the other hand, the active business development in these regions.

Table 3:
Tax payments of companies in the sector of financial services in 2018 - the first quarter of 2020

Parameters	2018			2019			I Q 2020		
	All companies in Ukraine, USD million	Companies in the sector of financial services, USD million	Share of companies in the sector of financial services, % to the amount of respective payments across companies in Ukraine	All companies in Ukraine, USD million	Companies in the sector of financial services, USD million	Share of companies in the sector of financial services, % to the amount of respective payments across companies in Ukraine	All companies in Ukraine, USD million	Companies in the sector of financial services, USD million	Share of companies in the sector of financial services, % to the amount of respective payments across companies in Ukraine
Total tax payments, including:	27,755.8	752.0	2.7	34,294.8	1,514.9	4.4	*	*	
income tax	3903.8	149.5	3.8	4547.2	342.6	7.5	1,341.6	72.3	5.4
value added tax on goods produced in Ukraine (works, services)	7,749.6	79.3	1.0	9,334.4	83.1	0.9	2,410.5	21.5	0.9
property taxes	1,149.7	20.9	1.8	1,472.6	24.9	1.7	310.2	6.1	2.0
personal income tax and military levy	8,452.2	473.2	5.6	10,676.7	577.0	5.4	2,538.6	178.5	7.0

Note: * - Information is not available

Source: Compiled by the authors based on data from the Journal «Rating - Business in official figures» (2018, 2019, 2020)

Despite a substantial reduction (almost four times) in the volume of loans provided by the deposit corporations to households in 2016 against 2013, in 2019 against 2016, the rate had increased by USD 1.9 billion (Table 4).

Consumer loans have accounted for the highest share in the structure of household lending in the entire period under research. Similar to the previous years, consumer credits constitute a substantial share in the structure of households crediting in the period under research. While funds in foreign currency accounted for 53% of all credits granted to households in 2016, the rate was only 17.7% in 2019.

The statistics on mortgage lending to the population in the period under research is rather interesting. Whereas its share in the total volume of loans provided to households in 2016 amounted to 36.9%, it substantially decreased in 2019, down to 12.5%. Moreover, households were granted 78% of mortgage loans in foreign currency in the base period and 60.3% in the reporting period. The abovementioned shows a slight decrease in the financial solvency of the population and its ambiguity in the long-term perspective.

Therefore, the role of mortgage lending to the population remains insignificant nowadays, which is caused by high cost of the mortgage loan (the interest rate ranges within 17-25% per annum). Deposit corporations also charge a range of fees. Which is more, the borrowers should prove their financial solvency, i.e. the availability of high official earnings. Meanwhile, not many households can prove the legal nature of their income considering the development of shadow economy in the country. Another reason is that commercial banks often refuse to fund the purchase of housing under construction. An exception is made only for the developers with whom the bank has joint lending programs.

In 2020, at the background of aggravated problems related to the coronavirus pandemic, the following trends were observed: falling demand of population and business for bank loans (Table 4), the establishment of stricter standards of crediting, and growing requests for restructuring from borrowing companies. The fall in the demand of the population for loans in the first quarter became the biggest since 2015. For consumer loans, it is related to declining expenditures for durable goods and the purchase of foreign currency. Yet, the relaxation of quarantine measures, reduced lending rates and lower standards of household loans in the third quarter of 2020 became the major drivers of credit activity of the population and businesses. Therefore, in 2021, banking institutions expect a certain improvement in the key crediting parameters.

Along with the substantial contribution of the sector of financial services to the country's economic development, it also considerably impacts social processes. In particular, the intensity of the change in the capacity of the sector under research directly correlates with the pace of employment change in the regions ($R^2 = 0.35$).

About 2% of those who are employed in the services sector in Ukraine work for companies in the sector of financial services. According to Forbes (Ukraine), Top 50 of the largest employers of the country in the first quarter of 2021 includes CB «ProCredit Bank» (3rd position),

Table 4:

Credits granted by the deposit corporations* to households, by target allocation (remaining balance as of the end of the year)

Indicators	2013		2016		2019		2020		January 2021	
	Amount, USD million	Share,%	Amount, USD million	Share,%	Amount, USD million	Share,%	Amount, USD million	Share,%	Amount, USD million	Share,%
Total loans, including:	23,892		6380		8 237		7508		7371	
consumer loans	16,956	71.0	3966	62.2	6,733	81.7	6,208	82.7	6,101	82.8
mortgages (for the purchase, construction and reconstruction of real estate)	6.351	26.6	2287	35.8	1,264	15.3	1,052	14.0	1,025	13.9
other loans	585	2.4	127	2.0	240	2.9	248	3,3	245	3.3
Mortgages (of the total amount)	6,947	29.1	2,354	36.9	1 032	12.5	1,105	14.7	1,065	14.4
Financial leasing (of the total amount)	60	0.3	10	0.2	51	0.6	no data available			

Note: * - Except for the National Bank of Ukraine.

Source: Compiled by the author according to the National Bank of Ukraine (2013, 2016, 2019, 2020, 2021)

CB «PUMB» (13th position), JSC CB «Privatbank» (20th position), JSC «Ukrsibbank» (25th position), etc.

In 2013-2020, the average monthly salary of those who are employed in the sector of financial services increased almost 3.5 times per employee and much exceeded the average rate for the country's economy in general. Moreover, the sector of financial services was the leader by the average monthly salary per employee in the entire period under research, coming second only to the sector of aviation transport, with its USD 807.2 against USD 911.5 as of December 2020.

Across regions, the average monthly salary of those who are employed in the sector of financial services (per employee) was characterized by substantial variability, showing the largest gap in the City of Kyiv.

The coefficient of correlation between the index of the efficiency of the use of the capacity of financial services and the average nominal salary of employees was 0.84 points in 2013 and 0.77 points in 2018.

Productive employment (when growing labour productivity provides an employee with an opportunity to receive income exceeding the minimum amount required to maintain workforce) was an important characteristic of business activities in the sector of financial services, which was accompanied by the relevant personal income tax (PIT) and military levy payments. The companies in the sector under research paid USD 577.5 million of the abovementioned payments to the budget in 2019, which was more than USD 104.3 million in 2018. Moreover, the share of PIT and military levy paid by companies operating in the sector of financial services in the total amount of respective taxes was 5.6% in 2018 and 5.4% paid by businesses in 2019 (Table 3).

The declining number of the registered unemployed was peculiar to the sector of financial services of Ukraine in the entire period under research. While the rate was 19.3 thousand people as of late 2014, it was 7.4 thousand people at the end of 2018. However, the number of vacancies in the sector under research was one of the lowest in the country - 0.6 thousand in 2018, which was only 1.03% of the total amount of vacancies in the economy. Nevertheless, the burden level for a vacancy was 13 persons, which is the largest rate among the types of economic activity, except agriculture, forestry and fishery (calculated by the authors based on the data (State Statistics Service of Ukraine, 2018)).

6. Conclusions

Unequal spatial distribution of companies in the sector of financial services and regional imbalances of the development of adjoining economic sectors and capacity of business entities and population have caused a high variability with regard to the index of the efficiency of the capacity of the sector of financial services used to secure the socio-economic growth in the Ukrainian regions, with its higher rates in the City of Kyiv, Dnipropetrovsk, Zaporizhzhia and Kharkiv regions and lower rates in Volyn and Kirovohrad regions. Currently, we are observing a growing negative trend concerning the expectations of companies operating in the sector of financial services with regard to the dynamics of their activity in the nearest future at the background of the coronavirus pandemic, which has already caused new fluctuations both in the global and national financial and foreign exchange markets.

In the face of the COVID pandemic in Ukraine, business activities in the market of financial services is falling, eventually adding to the problems of economic and social nature related to the falling purchase power of the population, limited entrepreneurship activity, redistribution of financial resources towards combating and overcoming the pandemic consequences. Therefore, forming a comprehensive roadmap activating the mechanisms to improve economic activities in the financial and adjoining markets should be the primary task for public and regional authorities. This can be achieved, in particular, by postponing payment of certain taxes and fees, securing the accessibility of credit resources, promoting the reduction of unemployment, maintaining the social standards, etc.

References

1. Finance and Investment Portal «Minfin» (2020). *Number of banks in Ukraine in 2008-2020*. <https://index.minfin.com.ua/ua/banks/stat/count> (in Ukr.)
2. Furqani, H., & Mulyany, R. (2009). Islamic Banking and Economic Growth: Empirical Evidence from Malaysia. *Journal of Economic Cooperation and Development*, 30(2), 59-74. https://www.researchgate.net/publication/286973453_Islamic_Banking_and_Economic_Growth_Empirical_Evidence_from_Malaysia

3. Leshchukh, I. V. (2015). Priorities and tools for the development of financial and investment infrastructure for the implementation of the metropolitan potential of regional metropolises (on the example of the Western region of Ukraine). *Global and national economic problems*, 4, 713-718 (in Ukr.).
4. Leshchukh, I. V. (2015). Priorities of development of regional banks of Western Ukraine in the system «Metropolis - periphery». *Finance of Ukraine*, 7, 86-97 (in Ukr.).
5. Levine, R. (1997). Financial development and economic growth: views and agenda. *Journal of Economic Literature*, 35(2), 688-726. <https://www.jstor.org/stable/2729790>
6. Luintel, K. B., & Khan, M. (1999). Quantitative Reassessment of the Finance Growth Nexus: Evidence from a Multivariate VAR. *Journal of Developing Economics*, 60(2), 381-405. [https://doi.org/10.1016/S0304-3878\(99\)00045-0](https://doi.org/10.1016/S0304-3878(99)00045-0)
7. Masih, R., & Masih, A. M. M. (1996). Macroeconomic activity dynamics and Granger causality: New evidence from a small developing economy based on a vector error correction modelling analysis. *Economic Modelling*, 13(3), 407-426. [https://doi.org/10.1016/0264-9993\(96\)01013-9](https://doi.org/10.1016/0264-9993(96)01013-9)
8. Melnyk, M. I. (2019). *Spatial organization of business in the regions of Ukraine: forms and mechanisms of regulation*. Monograph in 2 volumes. Vol. 2. Lviv: SI «Institute of Regional Research named after M.I. Dolishny NAS of Ukraine» (in Ukr.).
9. Ministry of Economy of Ukraine. (2009). *On approval of guidance for calculating a level of shadow economy*. Official web-site. <https://www.me.gov.ua/LegislativeActs/Detail?lang=uk-UA&id=4bb297a0-c900-404f-8c6f-5f76f18b1503> (in Ukr.)
10. National Bank of Ukraine. (2019). *Financial sector statistics*. Official web-site. <https://bank.gov.ua/ua/statistic/sector-financial/data-sector-financial#1ms> (in Ukr.)
11. Odedokun, M. (1992). Supply-Leading and Demand Following Relationship between Economic activity and Development Banking in Developing Countries: An Empirical Analysis. *Singapore Economic Review*, 37, 46-58.
12. Rating - Business in official figures. (2018). *The structure of tax revenues by industry in 2018*. <https://rating.zone/struktura-podatkovykh-nadkhodzhen-za-haluziamy-ekonomiky-za-2018-r> (in Ukr.)
13. Rating - Business in official figures. (2018). *TOP - 100 largest taxpayers of Ukraine in 2018*. <https://rating.zone/poster-100-najbilshykh-platnykiv-podatkov-ukrainy-2018> (in Ukr.)
14. Rating - Business in official figures. (2018). *TOP-200 largest employers in Ukraine*. <https://rating.zone/top-100-najbilshykh-robotodavtsiv-ukrainy> (in Ukr.)
15. Rating - Business in official figures. (2019). *The structure of tax revenues by industry in 2019*. <https://rating.zone/struktura-podatkovykh-nadkhodzhen-za-haluziamy-ekonomiky-za-2019-r> (in Ukr.)
16. Robinson, J. (1952). *The Generalization of the General Theory in the Rate of Interest and Other Essays*. London: Macmillan. <https://doi.org/10.1007/978-1-349-16188-1>
17. Schwab, K. (2018). *The Global Competitiveness Report*. World Economic Forum <http://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf>
18. Schwab, K. (2019). *The Global Competitiveness Report*. World Economic Forum http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf
19. State Statistics Service of Ukraine. (2013). *Gross regional product: statistical collection*. Official web-site. http://ukrstat.gov.ua/druk/publicat/Arhiv_u/03/Arch_vrp.htm (in Ukr.)
20. State Statistics Service of Ukraine. (2013). *Regions of Ukraine: statistical collection*. Official web-site. https://ukrstat.org/uk/druk/publicat/Arhiv_u/Arch_reg.htm (in Ukr.)
21. State Statistics Service of Ukraine. (2018). *Gross regional product: statistical collection*. Official web-site. http://ukrstat.gov.ua/druk/publicat/kat_u/publ2_u.htm (in Ukr.)
22. State Statistics Service of Ukraine. (2018). *Labor of Ukraine in 2018: statistical collection*. Official web-site. http://www.ukrstat.gov.ua/druk/publicat/kat_u/2019/zb/08/zb_pu2018_pdf.pdf (in Ukr.)
23. State Statistics Service of Ukraine. (2018). *Number of vacancies by type of economic activity in 2018*. Official web-site. http://www.ukrstat.gov.ua/operativ/operativ2018/rp/sz_br/sz_br_u/pp_g_u2018.htm (in Ukr.)
24. State Statistics Service of Ukraine. (2018). *Regions of Ukraine: statistical collection*. Official web-site. http://ukrstat.gov.ua/druk/publicat/kat_u/publ2_u.htm (in Ukr.)
25. State Statistics Service of Ukraine. (2019). *Economic statistics / Macroeconomic statistics / Trends in business activity*. Official web-site. <http://www.ukrstat.gov.ua> (in Ukr.)
26. Thiel, M. (2001). Finance and economic growth - a review of theory and the available evidence. *Economic Papers*, 158. https://ec.europa.eu/economy_finance/publications/pages/publication884_en.pdf
27. Wachtel, P. (2001). Growth and finance - what do we know and how do we know it? *International Finance*, 4(3), 335-362. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.197.6044&rep=rep1&type=pdf>
28. Zveryakov, M., & Zherdetskaya, L. (2017). Banking and real sectors of the economy of Ukraine: assessment of relationships and determinants of development. *Ukraine economy*, 10, 31-48. http://economyukr.org.ua/docs/EU_17_10_031_ru.pdf (in Russ.).
29. Zveryakov, M., Kovalenko, V., Sheludko, S., & Sharah, E. (2019). FinTech sector and banking business: competition or symbiosis? *Economic Annals-XXI*, 175(1-2), 53-57. <https://doi.org/10.21003/ea.V175-09>

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